Base Load Power Hub (BLPH)

F&G FIELD EQUIPMENT

ATEX REGISTER

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Revision / Change Log

Rev.	Description
00	ISSUE FOR REVIEW (IFR)
01	ACCEPTED FOR CONSTRUCTION (AFC)
02	ACCEPTED FOR CONSTRUCTION (AFC)
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HOLDS LIST

No.	Description
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No.	Revision	Tag Number	Description	Location	Manufacturer	Model Type Catalogue Number	Serial Number	ATEX Certification Marking	Reference Document	ATEX Certificate Number	Installation Zone	Notes / Comments	P.O.	Vendor	Skid / Package	Barrier Calculation Ref.	Non-Electrical Equipment	Special Conditions of safe use Applicable
1	02	950-SDZ-04201	SMOKE DETECTOR	FZ-04 B-400 AIR INTAKE	TYCO	MR601TEx	4050816	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
2	02	950-SDZ-04202	SMOKE DETECTOR	FZ-04 B-400 AIR INTAKE	TYCO	MR601TEx	4050799	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
3	02	950-SDZ-04203	SMOKE DETECTOR	FZ-04 B-400 AIR INTAKE	TYCO	MR601TEx	4050827	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
4	02	950-SDZ-04207	SMOKE DETECTOR	FZ-04 B-300 AIR INTAKE	TYCO	MR601TEx	4050834	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
5	02	950-SDZ-04208	SMOKE DETECTOR	FZ-04 B-300 AIR INTAKE	TYCO	MR601TEx	4051785	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
6	02	950-SDZ-04209	SMOKE DETECTOR	FZ-04 B-300 AIR INTAKE	TYCO	MR601TEx	4050815	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
7	02	950-SDZ-04213	SMOKE DETECTOR	FZ-04 B-200 AIR INTAKE	TYCO	MR601TEx	4051769	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
8	02	950-SDZ-04214	SMOKE DETECTOR	FZ-04 B-200 AIR INTAKE	TYCO	MR601TEx	4051786	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
9	02	950-SDZ-04215	SMOKE DETECTOR	FZ-04 B-200 AIR INTAKE	TYCO	MR601TEx	4051705	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
10	02	950-SDZ-06201	SMOKE DETECTOR	FZ-06 B-100 AIR INTAKE	TYCO	MR601TEx	4051704	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
11	02	950-SDZ-06202	SMOKE DETECTOR	FZ-06 B-100 AIR INTAKE	TYCO	MR601TEx	4051745	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
12	02	950-SDZ-06203	SMOKE DETECTOR	FZ-06 B-100 AIR INTAKE	TYCO	MR601TEx	4051716	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
13	02	950-SDZ-04204	SMOKE DETECTOR	FZ-04 B-400 AMBIENT	TYCO	MR601TEx	4051764	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
14	02	950-SDZ-04205	SMOKE DETECTOR	FZ-04 B-400 AMBIENT	TYCO	MR601TEx	4051760	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
15	02	950-SDZ-04206	SMOKE DETECTOR	FZ-04 B-400 AMBIENT	TYCO	MR601TEx	4051754	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
16	02	950-SDZ-04210	SMOKE DETECTOR	FZ-04 B-300 AMBIENT	TYCO	MR601TEx	4051736	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
17	02	950-SDZ-04211	SMOKE DETECTOR	FZ-04 B-300 AMBIENT	TYCO	MR601TEx	4051777	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
18	02	950-SDZ-04212	SMOKE DETECTOR	FZ-04 B-300 AMBIENT	TYCO	MR601TEx	4051708	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
19	02	950-SDZ-04216	SMOKE DETECTOR	FZ-04 B-200 AMBIENT	TYCO	MR601TEx	4051744	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
20	02	950-SDZ-04217	SMOKE DETECTOR	FZ-04 B-200 AMBIENT	TYCO	MR601TEx	4051770	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
21	02	950-SDZ-04218	SMOKE DETECTOR	FZ-04 B-200 AMBIENT	TYCO	MR601TEx	4051724	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
22	02	950-SDZ-06204	SMOKE DETECTOR	FZ-06 B-100 AMBIENT	TYCO	MR601TEx	4051762	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
23	02	950-SDZ-06205	SMOKE DETECTOR	FZ-06 B-100 AMBIENT	TYCO	MR601TEx	4051768	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
24	02	950-SDZ-06206	SMOKE DETECTOR	FZ-06 B-100 AMBIENT	TYCO	MR601TEx	4051782	II 1GD Ex ia IIC T5 Ga	1724000821-IN-DS-00004	BAS 01 ATEX 1134 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
25	02	950-GDZ-02101	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2193	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
26	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
27	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
28	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

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29	02	950-GDZ-02102	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2196	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
30	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
31	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
32	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
33	02	950-GDZ-02103	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2197	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
34	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
35	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
36	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
37	02	950-GDZ-02104	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1620	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
38	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
39	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
40	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
41	02	950-GDZ-02105	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2185	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
42	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
43	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
44	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
45	02	950-GDZ-02106	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2201	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
46	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
47	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
48	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
49	02	950-GDZ-02107	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2206	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
50	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
51	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
52	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
53	02	950-GDZ-02108	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2198	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
54	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
55	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
56	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

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57	02	950-GDZ-02109	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2203	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
58	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
59	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
60	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
61	02	950-GDZ-02110	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2204	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
62	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
63	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
64	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
65	02	950-GDZ-02111	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1618	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
66	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
67	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
68	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
69	02	950-GDZ-02112	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2192	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
70	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
71	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
72	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
73	02	950-GDZ-02113	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2207	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
74	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
75	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
76	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
77	02	950-GDZ-02114	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2200	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
78	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
79	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
80	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
81	02	950-GDZ-02115	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1615	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
82	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
83	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
84	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

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85	02	950-GDZ-02116	HYDROGEN POINT DETECTORS	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2208	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
86	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
87	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
88	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
89	02	950-GDZ-04201	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-400 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1611	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
90	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
91	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
92	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
93	02	950-GDZ-04202	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-400 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1625	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
94	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
95	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
96	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
97	02	950-GDZ-04203	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-400 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1631	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
98	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
99	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
100	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
101	02	950-GDZ-04204	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-400 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2205	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
102	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
103	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
104	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
105	02	950-GDZ-04205	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-400 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2202	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
106	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
107	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
108	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
109	02	950-GDZ-04206	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-400 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1613	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
110	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
111	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
112	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

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113	02	950-GDZ-04207	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-300 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1635	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
114	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
115	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
116	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
117	02	950-GDZ-04208	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-300 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-0199	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
118	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
119	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
120	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
121	02	950-GDZ-04209	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-300 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1633	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
122	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
123	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
124	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
125	02	950-GDZ-04210	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-300 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1619	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
126	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
127	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
128	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
129	02	950-GDZ-04211	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-300 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1628	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
130	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
131	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
132	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
133	02	950-GDZ-04212	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-300 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1627	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
134	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
135	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
136	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
137	02	950-GDZ-04213	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-200 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-0202	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
138	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
139	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
140	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

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141	02	950-GDZ-04214	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-200 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1616	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
142	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
143	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
144	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
145	02	950-GDZ-04215	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-200 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1621	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
146	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
147	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
148	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
149	02	950-GDZ-04216	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-200 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1614	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
150	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
151	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
152	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
153	02	950-GDZ-04217	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-200 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1610	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
154	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
155	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
156	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
157	02	950-GDZ-04218	HYDROGEN POINT DETECTORS	H2 GD FZ-04 B-200 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTC-2199	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
158	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
159	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
160	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
161	02	950-GDZ-05101	HYDROGEN POINT DETECTORS	H2 GD FZ-05 BESS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1626	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
162	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
163	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
164	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
165	02	950-GDZ-05102	HYDROGEN POINT DETECTORS	H2 GD FZ-05 BESS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1623	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
166	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
167	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
168	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

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169	02	950-GDZ-05103	HYDROGEN POINT DETECTORS	H2 GD FZ-05 BESS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1622	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
170	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
171	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
172	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
173	02	950-GDZ-05104	HYDROGEN POINT DETECTORS	H2 GD FZ-05 BESS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARSD-0457	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
174	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
175	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
176	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
177	02	950-GDZ-05105	HYDROGEN POINT DETECTORS	H2 GD FZ-05 BESS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1612	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
178	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
179	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
180	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
181	02	950-GDZ-05106	HYDROGEN POINT DETECTORS	H2 GD FZ-05 BESS AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1617	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
182	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
183	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
184	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
185	02	950-GDZ-06201	HYDROGEN POINT DETECTORS	H2 GD FZ-06 B-100 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1634	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
186	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
187	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
188	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
189	02	950-GDZ-06202	HYDROGEN POINT DETECTORS	H2 GD FZ-06 B-100 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1629	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
190	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
191	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
192	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
193	02	950-GDZ-06203	HYDROGEN POINT DETECTORS	H2 GD FZ-06 B-100 HVAC AIR INTAKE	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1639	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
194	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
195	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
196	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

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197	02	950-GDZ-06204	HYDROGEN POINT DETECTORS	H2 GD FZ-06 B-100 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1637	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
198	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
199	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
200	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
201	02	950-GDZ-06205	HYDROGEN POINT DETECTORS	H2 GD FZ-06 B-100 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-0204	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
202	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
203	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
204	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
205	02	950-GDZ-06206	HYDROGEN POINT DETECTORS	H2 GD FZ-06 B-100 AMBIENT	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARSD-0466	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
206	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
207	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
208	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
209	02	950-GDZ-03104	HYDROGEN POINT DETECTORS	H2 GD FZ-03 ELECTROLYZER PK AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1624	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
210	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
211	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
212	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
213	02	950-GDZ-03105	HYDROGEN POINT DETECTORS	H2 GD FZ-03 ELECTROLYZER PK AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-1630	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
214	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
215	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
216	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
217	02	950-GDZ-01103	HYDROGEN POINT DETECTORS	H2 GD FZ-03 ELECTROLYZER PK AREA	Dräger	Polytron® 8200 CAT DQ d S 4-20/HART®	ARTB-0194	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
218	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
219	02							II 2G Ex db IIC T6/T4 Gb	1724000821-IN-DS-00004	DEMKO 09 ATEX 0924202X (SENSOR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
220	02				CMP	Type 737		II 2 G Ex eb IIC Gb	1724000821-IN-DS-00004	CML 18ATEX 1320X (REDUCTION)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
221	02	950-GDZ-01101	ULTRASONIC GAS DETECTOR	H2 GD FZ-01 FUEL CELL PK AREA	Dräger	Polytron® 8900 UGLD d S 4-20/HART® Relay	ARTA-1680	II 2G Ex db [ia] IIC T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
222	02	950-GDZ-01102	ULTRASONIC GAS DETECTOR	H2 GD FZ-01 FUEL CELL PK AREA	Dräger	Polytron® 8900 UGLD d S 4-20/HART® Relay	ARTA-1685	II 2G Ex db [ia] IIC T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
223	02	950-GDZ-02117	ULTRASONIC GAS DETECTOR	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8900 UGLD d S 4-20/HART® Relay	ARTA-1682	II 2G Ex db [ia] IIC T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
224	02	950-GDZ-02118	ULTRASONIC GAS DETECTOR	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8900 UGLD d S 4-20/HART® Relay	ARTA-1676	II 2G Ex db [ia] IIC T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

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225	02	950-GDZ-02119	ULTRASONIC GAS DETECTOR	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8900 UGLD d S 4-20/HART® Relay	ARTA-1684	II 2G Ex db [ia] IIC T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
226	02	950-GDZ-02120	ULTRASONIC GAS DETECTOR	H2 GD FZ-02 H2 STORAGE VESSELS AREA	Dräger	Polytron® 8900 UGLD d S 4-20/HART® Relay	ARTA-1687	II 2G Ex db [ia] IIC T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
227	02	950-GDZ-03101	ULTRASONIC GAS DETECTOR	H2 GD FZ-03 ELECTROLYZER PK AREA	Dräger	Polytron® 8900 UGLD d S 4-20/HART® Relay	ARTA-1688	II 2G Ex db [ia] IIC T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
228	02	950-GDZ-03102	ULTRASONIC GAS DETECTOR	H2 GD FZ-03 ELECTROLYZER PK AREA	Dräger	Polytron® 8900 UGLD d S 4-20/HART® Relay	ARTA-1683	II 2G Ex db [ia] IIC T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
229	02	950-GDZ-03103	ULTRASONIC GAS DETECTOR	H2 GD FZ-03 ELECTROLYZER PK AREA	Dräger	Polytron® 8900 UGLD d S 4-20/HART® Relay	ARTA-1681	II 2G Ex db [ia] IIC T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
230	02	950-GDZ-03107	OXYGEN POINT DETECTORS	O2 DET. FZ-03 ELECTROLYZER PK AREA	Dräger	Polytron 8100 EC d S 4-20/Hart	ARTA-4693	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
231	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
232	02	950-GDZ-03108	OXYGEN POINT DETECTORS	O2 DET. FZ-03 ELECTROLYZER PK AREA	Dräger	Polytron 8100 EC d S 4-20/Hart	ARTA-4680	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
233	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
234	02	950-GDZ-03109	OXYGEN POINT DETECTORS	O2 DET. FZ-03 ELECTROLYZER PK AREA	Dräger	Polytron 8100 EC d S 4-20/Hart	ARTA-4689	II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	PTB 11 ATEX 1005X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
235	02							II 2 G Ex db eb [ia] IIC T6/T4 Gb	1724000821-IN-DS-00004	BVS 13 ATEX G 001X (TR)	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
236	02	950-FDZ-01101	FLAME DETECTOR	FZ-01 FUEL CELL PK AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
237	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
238	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
239	02	950-FDZ-01102	FLAME DETECTOR	FZ-01 FUEL CELL PK AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
240	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
241	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
242	02	950-FDZ-01103	FLAME DETECTOR	FZ-01 FUEL CELL PK AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
243	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
244	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
245	02	950-FDZ-01104	FLAME DETECTOR	FZ-01 FUEL CELL PK AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
246	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
247	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES

No.	Revision	Tag Number	Description	Location	Manufacturer	Model Type Catalogue Number	Serial Number	ATEX Certification Marking	Reference Document	ATEX Certificate Number	Installation Zone	Notes / Comments	P.O.	Vendor	Skid / Package	Barrier Calculation Ref.	Non-Electrical Equipment	Special Conditions of safe use Applicable
248	02	950-FDZ-02101	FLAME DETECTOR	FZ-02 H2 STORAGE VESSELS AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
249	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
250	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
251	02	950-FDZ-02102	FLAME DETECTOR	FZ-02 H2 STORAGE VESSELS AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
252	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
253	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
254	02	950-FDZ-02103	FLAME DETECTOR	FZ-02 H2 STORAGE VESSELS AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
255	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
256	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
257	02	950-FDZ-02104	FLAME DETECTOR	FZ-02 H2 STORAGE VESSELS AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
258	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
259	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
260	02	950-FDZ-03101	FLAME DETECTOR	FZ-03 ELECTROLYZER PK AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
261	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
262	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
263	02	950-FDZ-03102	FLAME DETECTOR	FZ-03 ELECTROLYZER PK AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
264	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
265	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
266	02	950-FDZ-03103	FLAME DETECTOR	FZ-03 ELECTROLYZER PK AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
267	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
268	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES

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269	02	950-FDZ-03104	FLAME DETECTOR	FZ-03 ELECTROLYZER PK AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
270	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
271	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
272	02	950-FDZ-04101	FLAME DETECTOR	FZ-04 B-400/B-300/B-200 AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
273	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
274	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
275	02	950-FDZ-04102	FLAME DETECTOR	FZ-04 B-400/B-300/B-200 AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
276	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
277	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
278	02	950-FDZ-04103	FLAME DETECTOR	FZ-04 B-400/B-300/B-200 AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
279	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
280	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
281	02	950-FDZ-04104	FLAME DETECTOR	FZ-04 B-400/B-300/B-200 AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
282	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
283	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
284	02	950-FDZ-05101	FLAME DETECTOR	FZ-05 BESS AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
285	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
286	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
287	02	950-FDZ-05102	FLAME DETECTOR	FZ-05 BESS AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
288	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
289	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES

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290	02	950-FDZ-05103	FLAME DETECTOR	FZ-05 BESS AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
291	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
292	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
293	02	950-FDZ-05104	FLAME DETECTOR	FZ-05 BESS AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
294	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
295	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
296	02	950-FDZ-06101	FLAME DETECTOR	FZ-06 B-100 AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
297	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
298	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
299	02	950-FDZ-06102	FLAME DETECTOR	FZ-06 B-100 AREA	FGD	FlameSpec FLS-UV-IR-AS11	Note1	II 2 G Ex db IIC T5 Gb	1724000821-IN-DS-00004	ICQC 19 ATEX 0424X (SENSOR)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
300	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	TPS19 ATEX 105708 0001X (PLUG)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
301	02							II 2 GD Ex db IIC Gb	1724000821-IN-DS-00004	INERIS 14 ATEX 0029X (REDUCTION)	Zone 2	Note 1: Tags will be provided loose and associated with the serial number during installation.	1724000821	FORES ENGINEERING	NA	NA	NO	YES
302	02	950-MFA-01101	MANUAL FIRE ALARM	FZ-01 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/1	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
303	02	950-MFA-01102	MANUAL FIRE ALARM	FZ-01 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/2	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
304	02	950-MFA-01103	MANUAL FIRE ALARM	FZ-01 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/3	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
305	02	950-MFA-02101	MANUAL FIRE ALARM	FZ-02 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/4	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
306	02	950-MFA-03101	MANUAL FIRE ALARM	FZ-03 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/5	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
307	02	950-MFA-03102	MANUAL FIRE ALARM	FZ-03 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/6	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
308	02	950-MFA-03103	MANUAL FIRE ALARM	FZ-03 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/7	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
309	02	950-MFA-03104	MANUAL FIRE ALARM	FZ-03 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/8	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
310	02	950-MFA-04101	MANUAL FIRE ALARM	FZ-04 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/9	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
311	02	950-MFA-04102	MANUAL FIRE ALARM	FZ-04 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/10	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
312	02	950-MFA-04201	MANUAL FIRE ALARM	FZ-04 MFA ACTIVATION - B-400 INDOOR	MEDC	SM87PBL	225420465/20/11	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
313	02	950-MFA-04202	MANUAL FIRE ALARM	FZ-04 MFA ACTIVATION - B-300 INDOOR	MEDC	SM87PBL	225420465/20/12	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
314	02	950-MFA-04203	MANUAL FIRE ALARM	FZ-04 MFA ACTIVATION - B-200 INDOOR	MEDC	SM87PBL	225420465/20/13	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
315	02	950-MFA-05101	MANUAL FIRE ALARM	FZ-05 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/14	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

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316	02	950-MFA-05102	MANUAL FIRE ALARM	FZ-05 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/15	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
317	02	950-MFA-05103	MANUAL FIRE ALARM	FZ-05 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/16	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
318	02	950-MFA-05104	MANUAL FIRE ALARM	FZ-05 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/17	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
319	02	950-MFA-06101	MANUAL FIRE ALARM	FZ-06 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/18	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
320	02	950-MFA-06102	MANUAL FIRE ALARM	FZ-06 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/19	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
321	02	950-MFA-06201	MANUAL FIRE ALARM	FZ-06 MFA ACTIVATION - B-100 INDOOR	MEDC	SM87PBL	225420465/20/20	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
322	02	950-MFA-07101	MANUAL FIRE ALARM	FZ-07 MFA ACTIVATION	MEDC	SM87PBL	225420465/20/21	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
323	02	950-ASD-01101	ABANDON ACTIVATION	FZ-01 ABANDON SHUTDOWN ACTIVATION	MEDC	SM87PBL	225420465/30/1	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
324	02	950-ASD-03101	ABANDON ACTIVATION	FZ-03 ABANDON SHUTDOWN ACTIVATION	MEDC	SM87PBL	225420465/30/2	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
325	02	950-ASD-04101	ABANDON ACTIVATION	FZ-04 ABANDON SHUTDOWN ACTIVATION	MEDC	SM87PBL	225420465/30/3	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
326	02	950-ASD-06101	ABANDON ACTIVATION	FZ-06 ABANDON SHUTDOWN ACTIVATION	MEDC	SM87PBL	225420465/30/4	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
327	02	950-ASD-07101	ABANDON ACTIVATION	FZ-07 ABANDON SHUTDOWN ACTIVATION	MEDC	SM87PBL	225420465/30/5	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
328	02	950-MOB-01101	MAN OVER BOARD ACTIVATION	FZ-01 MAN OVER BOARD ACTIVATION	MEDC	SM87PBL	225420465/30/6	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
329	02	950-MOB-03101	MAN OVER BOARD ACTIVATION	FZ-03 MAN OVER BOARD ACTIVATION	MEDC	SM87PBL	225420465/30/7	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
330	02	950-MOB-04101	MAN OVER BOARD ACTIVATION	FZ-04 MAN OVER BOARD ACTIVATION	MEDC	SM87PBL	225420465/30/8	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
331	02	950-MOB-06101	MAN OVER BOARD ACTIVATION	FZ-06 MAN OVER BOARD ACTIVATION	MEDC	SM87PBL	225420465/30/9	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
332	02	950-MOB-07101	MAN OVER BOARD ACTIVATION	FZ-07 MAN OVER BOARD ACTIVATION	MEDC	SM87PBL	225420465/30/10	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
333	02	950-ESD-01101	EMERGENCY SHUTDOWN ACTIVATION	FZ-01 ESD-1 PUSH BUTTON ACTIVATION	MEDC	SM87PBL	225420465/30/11	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
334	02	950-ESD-03101	EMERGENCY SHUTDOWN ACTIVATION	FZ-03 ESD-1 PUSH BUTTON ACTIVATION	MEDC	SM87PBL	225420465/30/12	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
335	02	950-ESD-04101	EMERGENCY SHUTDOWN ACTIVATION	FZ-04 ESD-1 PUSH BUTTON ACTIVATION	MEDC	SM87PBL	225420465/30/13	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
336	02	950-ESD-06101	EMERGENCY SHUTDOWN ACTIVATION	FZ-06 ESD-1 PUSH BUTTON ACTIVATION	MEDC	SM87PBL	225420465/30/14	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
337	02	950-ESD-07101	EMERGENCY SHUTDOWN ACTIVATION	FZ-07 ESD-1 PUSH BUTTON ACTIVATION	MEDC	SM87PBL	225420465/30/15	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
338	02	950-ESDD-01101	EMERGENCY SHUTDOWN DEPRESSURIZATION ACTIVATION	FZ-01 ESD-1D PUSH BUTTON ACTIVATION	MEDC	SM87PBL	225420465/30/16	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
339	02	950-ESDD-03101	EMERGENCY SHUTDOWN DEPRESSURIZATION ACTIVATION	FZ-03 ESD-1D PUSH BUTTON ACTIVATION	MEDC	SM87PBL	225420465/30/17	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
340	02	950-ESDD-04101	EMERGENCY SHUTDOWN DEPRESSURIZATION ACTIVATION	FZ-04 ESD-1D PUSH BUTTON ACTIVATION	MEDC	SM87PBL	225420465/30/18	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
341	02	950-ESDD-06101	EMERGENCY SHUTDOWN DEPRESSURIZATION ACTIVATION	FZ-06 ESD-1D PUSH BUTTON ACTIVATION	MEDC	SM87PBL	225420465/30/19	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
342	02	950-ESDD-07101	EMERGENCY SHUTDOWN DEPRESSURIZATION ACTIVATION	FZ-07 ESD-1D PUSH BUTTON ACTIVATION	MEDC	SM87PBL	225420465/30/20	II 2GD Ex d IIC T5/T6 Gb, Ex tb IIIC T85°C/T100°C Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0075 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
343	02	950-XL-01101	FLAMMABLE GAS ALARM	FZ-01 GAS BEACON ACTIVATION	MEDC	SM87LEDS	225420465/40/1	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE

No.	Revision	Tag Number	Description	Location	Manufacturer	Model Type Catalogue Number	Serial Number	ATEX Certification Marking	Reference Document	ATEX Certificate Number	Installation Zone	Notes / Comments	P.O.	Vendor	Skid / Package	Barrier Calculation Ref.	Non-Electrical Equipment	Special Conditions of safe use Applicable
344	02	950-XL-02101	FLAMMABLE GAS ALARM	FZ-02 GAS BEACON ACTIVATION	MEDC	SM87LEDS	225420465/40/2	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
345	02	950-XL-03101	FLAMMABLE GAS ALARM	FZ-03 GAS BEACON ACTIVATION	MEDC	SM87LEDS	225420465/40/3	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
346	02	950-XL-03103	FLAMMABLE GAS ALARM	FZ-03 GAS BEACON ACTIVATION	MEDC	SM87LEDS	225420465/40/4	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
347	02	950-XL-04101	FLAMMABLE GAS ALARM	FZ-04 GAS BEACON ACTIVATION	MEDC	SM87LEDS	225420465/40/5	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
348	02	950-XL-04103	FLAMMABLE GAS ALARM	FZ-04 GAS BEACON ACTIVATION	MEDC	SM87LEDS	225420465/40/6	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
349	02	950-XL-04201	FLAMMABLE GAS ALARM	FZ-04 GAS BEACON ACT. - B-400 INDOOR	MEDC	SM87LEDS	225420465/40/7	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
350	02	950-XL-04203	FLAMMABLE GAS ALARM	FZ-04 GAS BEACON ACT. - B-300 INDOOR	MEDC	SM87LEDS	225420465/40/8	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
351	02	950-XL-04205	FLAMMABLE GAS ALARM	FZ-04 GAS BEACON ACT. - B-200 INDOOR	MEDC	SM87LEDS	225420465/40/9	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
352	02	950-XL-06101	FLAMMABLE GAS ALARM	FZ-06 GAS BEACON ACTIVATION	MEDC	SM87LEDS	225420465/40/10	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
353	02	950-XL-06103	FLAMMABLE GAS ALARM	FZ-06 GAS BEACON ACTIVATION	MEDC	SM87LEDS	225420465/40/11	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
354	02	950-XL-06201	FLAMMABLE GAS ALARM	FZ-06 GAS BEACON ACT. - B-100 INDOOR	MEDC	SM87LEDS	225420465/40/12	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
355	02	950-XL-07101	FLAMMABLE GAS ALARM	FZ-07 GAS BEACON ACTIVATION	MEDC	SM87LEDS	225420465/40/13	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
356	02	950-XL-01102	FIRE FLASH BEACON	FZ-01 FIRE BEACON ACTIVATION	MEDC	SM87LEDS	225420465/50/1	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
357	02	950-XL-02102	FIRE FLASH BEACON	FZ-02 FIRE BEACON ACTIVATION	MEDC	SM87LEDS	225420465/50/2	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
358	02	950-XL-03102	FIRE FLASH BEACON	FZ-03 FIRE BEACON ACTIVATION	MEDC	SM87LEDS	225420465/50/3	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
359	02	950-XL-03104	FIRE FLASH BEACON	FZ-03 FIRE BEACON ACTIVATION	MEDC	SM87LEDS	225420465/50/4	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
360	02	950-XL-04102	FIRE FLASH BEACON	FZ-04 FIRE BEACON ACTIVATION	MEDC	SM87LEDS	225420465/50/5	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
361	02	950-XL-04104	FIRE FLASH BEACON	FZ-04 FIRE BEACON ACTIVATION	MEDC	SM87LEDS	225420465/50/6	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
362	02	950-XL-04202	FIRE FLASH BEACON	FZ-04 FIRE BEACON ACT. - B-400 INDOOR	MEDC	SM87LEDS	225420465/50/7	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
363	02	950-XL-04204	FIRE FLASH BEACON	FZ-04 FIRE BEACON ACT. - B-300 INDOOR	MEDC	SM87LEDS	225420465/50/8	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
364	02	950-XL-04206	FIRE FLASH BEACON	FZ-04 FIRE BEACON ACT. - B-200 INDOOR	MEDC	SM87LEDS	225420465/50/9	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
365	02	950-XL-06102	FIRE FLASH BEACON	FZ-06 FIRE BEACON ACTIVATION	MEDC	SM87LEDS	225420465/50/10	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
366	02	950-XL-06104	FIRE FLASH BEACON	FZ-06 FIRE BEACON ACTIVATION	MEDC	SM87LEDS	225420465/50/11	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
367	02	950-XL-06202	FIRE FLASH BEACON	FZ-06 FIRE BEACON ACT. - B-100 INDOOR	MEDC	SM87LEDS	225420465/50/12	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
368	02	950-XL-07102	FIRE FLASH BEACON	FZ-07 FIRE BEACON ACTIVATION	MEDC	SM87LEDS	225420465/50/13	Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55ºC/ T70ºC Db	1724000821-IN-DS-00004	Baseefa 03 ATEX 0222	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	NONE
369	02	950-XZ-01101	SOUNDER	FZ-01 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/01	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
370	02	950-XZ-01102	SOUNDER	FZ-01 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/02	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
371	02	950-XZ-02101	SOUNDER	FZ-02 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/03	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

No.	Revision	Tag Number	Description	Location	Manufacturer	Model Type Catalogue Number	Serial Number	ATEX Certification Marking	Reference Document	ATEX Certificate Number	Installation Zone	Notes / Comments	P.O.	Vendor	Skid / Package	Barrier Calculation Ref.	Non-Electrical Equipment	Special Conditions of safe use Applicable
372	02	950-XZ-03101	SOUNDER	FZ-03 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/04	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
373	02	950-XZ-03102	SOUNDER	FZ-03 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/05	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
374	02	950-XZ-04101	SOUNDER	FZ-04 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/06	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
375	02	950-XZ-04102	SOUNDER	FZ-04 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/07	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
376	02	950-XZ-04201	SOUNDER	FZ-04 SOUNDER ACT. - B-400 INDOOR	MEDC	DB3BM	225420465/60/08	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
377	02	950-XZ-04202	SOUNDER	FZ-04 SOUNDER ACT. - B-300 INDOOR	MEDC	DB3BM	225420465/60/09	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
378	02	950-XZ-04203	SOUNDER	FZ-04 SOUNDER ACT. - B-200 INDOOR	MEDC	DB3BM	225420465/60/10	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
379	02	950-XZ-05101	SOUNDER	FZ-05 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/11	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
380	02	950-XZ-05102	SOUNDER	FZ-05 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/12	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
381	02	950-XZ-05103	SOUNDER	FZ-05 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/13	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
382	02	950-XZ-05104	SOUNDER	FZ-05 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/14	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
383	02	950-XZ-06101	SOUNDER	FZ-06 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/15	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
384	02	950-XZ-06201	SOUNDER	FZ-06 SOUNDER ACT. - B-100 INDOOR	MEDC	DB3BM	225420465/60/16	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
385	02	950-XZ-07101	SOUNDER	FZ-07 SOUNDER ACTIVATION	MEDC	DB3BM	225420465/60/17	Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db	1724000821-IN-DS-00004	UL 21 ATEX 2559X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
386	02	77-HS-001A	PUSH BUTTON DPDT CONTACT	B-100 Fire Damper AHU1 Inlet Air	EATON	GHG 432	24-11391	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
387	02	77-HS-001B	PUSH BUTTON DPDT CONTACT	B-100 Fire Damper AHU1 Inlet Air	EATON	GHG 432	24-11392	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
388	02	77-HS-002A	PUSH BUTTON DPDT CONTACT	B-100 Fire Damper AHU2 Inlet Air	EATON	GHG 432	24-11393	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
389	02	77-HS-002B	PUSH BUTTON DPDT CONTACT	B-100 Fire Damper AHU2 Inlet Air	EATON	GHG 432	24-11394	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
390	02	77-HS-003A	PUSH BUTTON DPDT CONTACT	B-100 Fire Damper Exhaust Air	EATON	GHG 432	24-11395	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
391	02	77-HS-003B	PUSH BUTTON DPDT CONTACT	B-100 Fire Damper Exhaust Air	EATON	GHG 432	24-11396	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
392	02	77-HS-004A	PUSH BUTTON DPDT CONTACT	B-200 Fire Damper AHU3 Inlet Air	EATON	GHG 432	24-11397	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
393	02	77-HS-004B	PUSH BUTTON DPDT CONTACT	B-200 Fire Damper AHU3 Inlet Air	EATON	GHG 432	24-11398	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
394	02	77-HS-005A	PUSH BUTTON DPDT CONTACT	B-200 Fire Damper AHU4 Inlet Air	EATON	GHG 432	24-11399	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
395	02	77-HS-005B	PUSH BUTTON DPDT CONTACT	B-200 Fire Damper AHU4 Inlet Air	EATON	GHG 432	24-11400	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
396	02	77-HS-006A	PUSH BUTTON DPDT CONTACT	B-200 Fire Damper Exhaust Air	EATON	GHG 432	24-11401	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
397	02	77-HS-006B	PUSH BUTTON DPDT CONTACT	B-200 Fire Damper Exhaust Air	EATON	GHG 432	24-11402	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
398	02	77-HS-007A	PUSH BUTTON DPDT CONTACT	B-300 Fire Damper AHU5 Inlet Air	EATON	GHG 432	24-11403	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
399	02	77-HS-007B	PUSH BUTTON DPDT CONTACT	B-300 Fire Damper AHU5 Inlet Air	EATON	GHG 432	24-11404	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

No.	Revision	Tag Number	Description	Location	Manufacturer	Model Type Catalogue Number	Serial Number	ATEX Certification Marking	Reference Document	ATEX Certificate Number	Installation Zone	Notes / Comments	P.O.	Vendor	Skid / Package	Barrier Calculation Ref.	Non-Electrical Equipment	Special Conditions of safe use Applicable
400	02	77-HS-008A	PUSH BUTTON DPDT CONTACT	B-300 Fire Damper AHU5 Return Air	EATON	GHG 432	24-11405	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
401	02	77-HS-008B	PUSH BUTTON DPDT CONTACT	B-300 Fire Damper AHU5 Return Air	EATON	GHG 432	24-11406	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
402	02	77-HS-009A	PUSH BUTTON DPDT CONTACT	B-300 Fire Damper AHU6 Inlet Air	EATON	GHG 432	24-11407	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
403	02	77-HS-009B	PUSH BUTTON DPDT CONTACT	B-300 Fire Damper AHU6 Inlet Air	EATON	GHG 432	24-11408	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
404	02	77-HS-010A	PUSH BUTTON DPDT CONTACT	B-300 Fire Damper AHU6 Return Air	EATON	GHG 432	24-11409	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
405	02	77-HS-010B	PUSH BUTTON DPDT CONTACT	B-300 Fire Damper AHU6 Return Air	EATON	GHG 432	24-11410	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
406	02	77-HS-011A	PUSH BUTTON DPDT CONTACT	B-300 Fire Damper Exhaust Air	EATON	GHG 432	24-11411	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
407	02	77-HS-011B	PUSH BUTTON DPDT CONTACT	B-300 Fire Damper Exhaust Air	EATON	GHG 432	24-11412	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
408	02	77-HS-012A	PUSH BUTTON DPDT CONTACT	B-400 Fire Damper AHU7 Inlet Air	EATON	GHG 432	24-11413	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
409	02	77-HS-012B	PUSH BUTTON DPDT CONTACT	B-400 Fire Damper AHU7 Inlet Air	EATON	GHG 432	24-11414	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
410	02	77-HS-013A	PUSH BUTTON DPDT CONTACT	B-400 Fire Damper AHU7 Return Air	EATON	GHG 432	24-11415	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
411	02	77-HS-013B	PUSH BUTTON DPDT CONTACT	B-400 Fire Damper AHU7 Return Air	EATON	GHG 432	24-11416	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
412	02	77-HS-014A	PUSH BUTTON DPDT CONTACT	B-400 Fire Damper AHU8 Inlet Air	EATON	GHG 432	24-11417	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
413	02	77-HS-014B	PUSH BUTTON DPDT CONTACT	B-400 Fire Damper AHU8 Inlet Air	EATON	GHG 432	24-11418	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
414	02	77-HS-015A	PUSH BUTTON DPDT CONTACT	B-400 Fire Damper AHU8 Return Air	EATON	GHG 432	24-11419	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
415	02	77-HS-015B	PUSH BUTTON DPDT CONTACT	B-400 Fire Damper AHU8 Return Air	EATON	GHG 432	24-11420	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
416	02	77-HS-016A	PUSH BUTTON DPDT CONTACT	B-400 Fire Damper Exhaust Air	EATON	GHG 432	24-11421	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
417	02	77-HS-016B	PUSH BUTTON DPDT CONTACT	B-400 Fire Damper Exhaust Air	EATON	GHG 432	24-11422	II 2 G Ex ed ib m IIC T6	1724000821-IN-DS-00004	BVS 22 ATEX E032 X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES
418	02	N.A	FLAME SIMULATOR	-	FDG	FlameSpec FLS-FSIM-UV/IR-KIT	1544	II 2GD Ex db ib op is IIC T6 Gb	1724000821-IN-DS-00004	ICQC 20 ATEX 0447X	Zone 2		1724000821	FORES ENGINEERING	NA	NA	NO	YES

CERTIFICATE COLLECTION

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1 # EU - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
Directive 2014/34/EU

3 EU - Type Examination Certificate Number: **BAS01ATEX1134X – Issue 10**

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **M600Ex Series Fire Detectors**

5 Manufacturer: **Thorn Security Limited, T/A Tyco Safety Products**

6 Address: **Security House, The Summit, Hanworth Road, Sunbury-on-Thames, Middlesex, TW16 5DB United Kingdom**

7 This re-issued certificate extends EC Type Examination Certificate No. **BAS01ATEX1134X** to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

8.1 The original certificate was issued by The Electrical Equipment Certification Service (UK Notified Body 0600). It, and any supplements previously issued by SGS Baseefa Ltd (UK Notified Body 1180) have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **See Certificate History**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-11:2012**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

Ex II 1GD Ex ia IIC T5 Ga Ex ia IIIB T_{200}100°C Da

SGS Fimko Oy Customer Reference No. **1747** Project File No. **23/0103**

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13 # Schedule

14 **Certificate Number BAS01ATEX1134X – Issue 10**

15 Description of Product

The M600Ex Series Fire Detectors comprises four models, each with a plastic enclosure containing a partially encapsulated main printed circuit board on which is mounted a sensor which varies according to the model type.

All models of the apparatus mount on either an MUB Ex or 5BEx universal base unit which provides the power and signalling external connections via screw terminals. The following models make up the M600Ex series of detectors: -

i) MR601TEx High Performance Optical Smoke Detector
ii) MD601Ex Heat Detector
iii) MD611Ex Heat Detector (single thermistor)
iv) MDU601Ex Heat and Carbon Monoxide Detector

All models of the M600Ex Series Fire Detectors have the following input parameters: -

U_i = 28V C_i = 0
I_i = 93mA L_i = 0
P_i = 0.65W

The above parameters must be derived from a linear supply (Resistive Source).

16 Report Number

See Certificate History

17 Specific Conditions of Use

1. The apparatus has a plastic enclosure which constitutes a potential electrostatic hazard. The enclosure must be cleaned only with a damp cloth and do not mount in a high velocity dust laden atmosphere.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product:

Clause	Subject	Compliance
1.2.7	LVD type requirements	Manufacturer responsibility
1.2.8	Overloading of equipment (protection relays, etc.)	User/Installer responsibility
1.4.1	External effects	User/Installer responsibility
1.4.2	Aggressive substances, etc.	User/Installer responsibility

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
Models MD601Ex & MD611Ex				
CL516-052-041.Y	1 of 1	5	21-02-24	MD611Ex Heat Detector
CL516-052-051.Y	1 of 1	5	21-02-24	MD601Ex Heat Detector

Number	Sheet	Issue	Date	Description
Model MR601TEx				
CL 516-054-011.Y	1 of 2	6	21-02-24	Component List for MR601TEx High Performance Optical Detector
CL 516-054-011.Y	2 of 2	6	21-02-24	Component List for MR601TEx High Performance Optical Detector
Model MDU601Ex				
CL 516-061-001.Y	1 of 2	5	21-02-24	Component List for MDU601Ex CO + Heat Detector
CL 516-061-001.Y	2 of 2	5	21-02-24	Component List for MDU601Ex CO + Heat Detector

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
120.036.784	1 of 2	5	24-01-22	Cover Screened MX600Ex Series
EECS 120-036-784	1 of 1	4	08-06-15	Cover Screened MX600Ex Series
120-036-784	1 of 1	4	08-06-15	Cover Screened MX600Ex Series
EECS 120-028-212	1 of 1	3	23-04-15	Base Screened MUB Ex Series (Certified)
517-050-023	1 of 1	2	30-04-15	5BEx 5” Universal Base Ex/Exn Series
120-028-215	1 of 1	2	30-04-15	5” Base Screened Ex/Exn Series (Certified)
Model MR601TEx				
EECS 125.585.803	1 of 1	2	24-09-01	MR601T Ex Circuit Diagram (Certified)
EECS 125.585.803	2 of 2	3	24-09-01	MR601T Ex Sensor PCB Assembly (Certified)
125-165-391	1 of 7	2	25-07-01	Drilling detail for MR601T Ex PCB
125-165-391	2 of 7	2	20-8-01	Track Layer (Top Side) for MR601T Ex Sensor PCB
125-165-391	3 of 7	2	20-8-01	Inner Layer (Top Side) for MR601T Ex Sensor PCB
125-165-391	4 of 7	2	20-8-01	Track Layer (Bot. Side) for MR601T Ex Sensor PCB
516-054-011.Y	1 of 2	2	23-8-01	MR601TEx High Performance Optical Detector
516.054.011.Y	2 of 2	6	22-08-07	MR601TEx High Performance Optical Detector
Models MD601Ex & MD611Ex				
EECS125.585.804/807	1 of 1	2	27-07-01	MD601 Ex / MD611 Ex Circuit Diagram (Certified)
EECS125.585.804	2 of 2	2	21-08-01	MD601 Ex Sensor PCB Assembly (Certified)
EECS125.585.807	2 of 2	2	21-08-01	MD611 Ex Sensor PCB Assembly (Certified)
125-165-392	1 of 7	3	21-7-03	Drilling Detail for MD601 Ex PCB
125-165-392	2 of 7	2	20-8-01	Track Layer (Top Side) for MD601 Ex Sensor PCB
125-165-392	3 of 7	2	20-8-01	Inner Layer (Top Side) for MD601 Ex Sensor PCB
125-165-392	4 of 7	2	20-8-01	Track Layout (Bot. Side) for MD601 Ex Sensor PCB
516-052-051/041	1 of 2	2	13-7-01	MD601Ex & MD611Ex Heat Detector
516.052.051.Y	2 of 2	6	22-08-07	MD601Ex Heat Detector
516.052.041.Y	2 of 2	6	22-08-07	MD611Ex Heat Detector
Model MDU601Ex				
EECS125.585.806	1 of 1	3	04-10-07	MDU601 Ex Circuit Diagram (Certified)
EECS125.585.806	2 of 2	3	04-10-07	MDU601 Ex Sensor PCB Assembly (Certified)
125-165-390	1 of 7	3	21-7-03	Drilling Detail for MDU601 Ex PCB
125-165-390	2 of 7	2	20-8-01	Track Layer (Top Side) for MDU601 Ex Sensor PCB

Number	Sheet	Issue	Date	Description
125-165-390	3 of 7	2	20-8-01	Inner Layer (Top Side) for MDU601 Ex Sensor PCB
125-165-390	4 of 7	2	20-8-01	Track Layer (Bot. Side) for MDU601 Ex Sensor PCB
516-061-001.Y	1 of 2	4	1-07-06	MDU601Ex CO + Heat Detectors
516-061-001.Y	2 of 2	4	22-08-07	MDU601Ex CO + Heat Detector
MUB Ex Base				
EECS 517-050-610	1 of 1	1	7-2-02	MUB Ex Base Assembly (Certified)
(CL) EECS 517-050-610	1 of 1	1	27-2-02	Component List for MUB Ex Base Assembly (Certified)
5BEx 5" Universal Base				
CL 517-050-023	2 of 2	1	17-01-06	Component List for 5BEx 5" Universal Base Ex / Exn Series (Certified)
All M600Ex Series Fire Detector Models				
EECS 120-347-021	1 of 1	1	1-3-02	MX Blank Label

The above drawings are associated with BAS21UKEX0611X and IECEx BAS 07.0056X.

20 Certificate History

Certificate No.	Date	Comments
BAS01ATEX1134X	10 October 2001	The release of the prime certificate. The associated test and assessment is documented in Test Report no. 00(C)0997.
BAS01ATEX1134X/1	5 March 2002	This issue of the certificate is to permit the deletion of information from the base unit label and minor drawing information changes.
BAS01ATEX1134X/2	19 December 2002	This issue of the certificate is to permit a change of material used for the product identity label.
BAS01ATEX1134X/3	7 February 2006	This issue of the certificate is to permit the use of an alternative Base for the Detectors type MR601TEx, MF601Ex, MD601Ex, MD611Ex, MDU601Ex & MU601Ex. This change does not affect intrinsic safety.
BAS01ATEX1134X/4	25 April 2006	This issue of the certificate is to permit minor labelling changes that do not affect the original Intrinsic Safety assessment.
BAS01ATEX1134X/5	4 July 2006	This issue of the certificate is to permit minor labelling changes that do not affect the original Intrinsic Safety assessment.
BAS01ATEX1134X/6	29 August 2008	To confirm that the MR601TEx, MD601Ex, MD611Ex and MDU601Ex Fire Detectors have been reviewed against the requirements of EN 60079-0: 2006 and EN 60079-11: 2007 in respect of any differences from EN 50014: 1997 + Amds 1 & 2 and EN 50020: 2002 and none of the differences affect this equipment. To permit the addition of dust certification 'iaD' to the MR601TEx, MD601Ex, MD611Ex and MDU601Ex Fire Detectors in accordance with the requirements of EN 61241-0: 2006 and EN 61241-11: 2006. The apparatus is now additionally marked: - Ex iaD 20 T100°C To permit other minor drawing changes not affecting the original assessment. The associated test and assessment is documented in Test Report No: GB/BAS/ExTR07.0103/00 and GB/BAS/ExTR07.0145/00

Certificate No.	Date	Comments
BAS01ATEX1134X Issue 7	2 July 2015	This issue of the certificate incorporates the previously issued primary & supplementary certificates into one certificate and confirms the current designs have been reviewed against the requirements of EN 60079-0:2012+A11:2013 and EN 60079-11: 2012 in respect of any differences from EN 60079-0:2006 and EN 60079-11:2007and none of the differences affect this equipment. The associated test and assessment is documented in Test Report No: GB/BAS/ExTR15.0191/00. Project File is 14/0619.
BAS01ATEX1134X Issue 8	3 November 2016	At the manufacturers request the IPO of this certificate is now: Tyco Fire & Security GmbH Victor Von Bruns-Strasse 21 8212 Neuhausen am Rheinfall Schaffhausen Switzerland The Design Authority remains with: Thorn Security Limited Security House The Summit Hanworth Road Sunbury-on-Thames Middlesex TW16 5DB Other than the name and address on the marking labels (now the IPO), there are no other changes to this certificate or to the standards to which the equipment has been assessed. The associated test and assessment is documented in Test Report No: GB/BAS/ExTR16.0244/00. Project File is 16/0634
BAS01ATEX1134X Issue 9	6 June 2022	To confirm that the M600Ex Series Fire Detectors meet the requirements of EN IEC 60079-0:2018. Report No: GB/BAS/ExTR22.0097/00. Project File is 21/0316.
BAS01ATEX1134X Issue 10	20 March 2024	To permit minor product changes that do not affect the previous assessment. The associated test and assessment is documented in Test Report No: GB/SGS/ExTR23.0118/00. Project File is 23/0103.
For drawings applicable to each issue, see original of that issue.		

HYDROGEN POINT DETECTORS

(GAS TRASMITTER -
GAS DETECTOR -
SENSOR -
REDUCER)

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Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

(1) # EU-TYPE-EXAMINATION CERTIFICATE

(Translation)

(2) Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

PTB 11 ATEX 1005 X **Issue: 3**

(4) Product: Gas detection transmitters ETR/ITR/XTR 0***, Remote Box RCU 0***

(5) Manufacturer: Dräger Safety AG & Co. KGaA

(6) Address: Revalstraße 1, 23560 Lübeck, Germany

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential Test Report PTB Ex 21-11017.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC60079-0:2018; EN 60079-1:2014+AC:2018;
EN IEC 60079-7:2015+A1:2018; EN 60079-11:2012; EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II 2 G Ex db IIC T6/T4 Gb resp.
II 2 G Ex db eb IIC T6/T4 Gb resp.
II 2 D Ex tb IIIC T80°C/T130°C Db resp.
II 2G Ex db ia IIC T6/T4 Gb resp.
II 2G Ex db eb ia IIC T6/T4 Gb resp.
II 2 G Ex db [ia] IIC T6/T4 Gb resp.
II 2 G Ex db ia [ia] IIC T6/T4 Gb resp.

ZSEx001e c

EU-Type Examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
In case of dispute, the German text shall prevail.

Physikalisch-Technische Bundesanstalt • Bundesallee 100 • 38116 Braunschweig • GERMANY

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

(1) # EU-TYPE-EXAMINATION CERTIFICATE

(Translation)

II 2 G Ex db eb [ia] IIC T6/T4 Gb resp.
II 2 G Ex db eb ia [ia] IIC T6/T4 Gb resp.
II 2 D Ex tb [ia] IIIC T135°C Db

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Dr.-Ing. D. Markus
Direktor und Professor

Braunschweig, April 20, 2021

ZSEx001e c

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(13) # SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 11 ATEX 1005 X, Issue: 03**

(15) Description of Product

The Gas detection transmitters ETR/ITR/XTR 0*** consist of three different types of sensors and interfaces. The Gas detection transmitter type ETR 0*** uses the electrochemical sensing principle, the Gas detection transmitter type ITR 0*** uses the infrared sensing principle and the Gas detection transmitter type XTR 0*** uses the catalytic sensing principle or infrared sensing principle with a catalytic sensor interface.

The Remote Box type RCU 0*** shall only be used with separate certified sensors. The sensor frontend (EC sensing head) of the ETR 0*** series comprises a galvanically separating barrier circuit (inside the flameproof enclosure) and intrinsically safe electronics located outside the flameproof enclosure as well as an electro-chemical resp. ultrasonic sensor - all of them being covered by this certificate. The sensors of the ITR 0*** and XTR 0*** series are covered by separate certifications, which are accepted under this certificate.
The internal electronics optionally covers the intrinsically safe fieldbus under consideration of the maximum FISCO input ratings applicable for the operation as both FISCO Field device or alternatively non- intrinsically safe fieldbus Modbus RTU.

The connection of the equipment is made on the one hand via direct cable entries into the flameproof enclosure (E,I,X)TR 0(2…5)*(0...F) or on the other hand via a terminal box of the increased safety type of protection (E,I,X)TR 0(2…5)*(I...X). For remote applications, the equipment can optionally be connected to the flameproof terminal box EAC 01**.

Nomenclature:

$\frac{*}{1}$**TR 0** $\frac{*}{2}\ \frac{*}{3}\ \frac{*}{4}$

1: Sensing principle
- E = electrochemical
- I = infrared
- X = catalytic

2: Series and enclosure material
- 2 = 02/03 aluminium enclosure
- 3 = 02/03 series, stainless steel enclosure
- 4 = 04/05 series, aluminium enclosure
- 5 = 04/05 series, stainless steel enclosure

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3: Sensor

**ITR 0 *_* *

3: Sensor

0 = IDS 0001
1 = IDS 0101
2 = IDS 0102
5 = IDS 0105

**ETR 0 *_* *

3: Sensor

0 = DrägerSensor or XS with Adapter
2 = Ultrasonic sensor

**XTR 0 *_* *

3: Sensor

0 = IDS 0002
1 = XDS 020*
2 = Ex-Sensor LC NPT

4: Interface

0 = "d", 4-20 mA
1 = "d", 4-20 mA with Relay
2 = “d”, Modbus RTU
A = "d"+"ia", Foundation Fieldbus
B = "d"+"ia", Foundation Fieldbus SIF
E = "d"+"ia", Profibus
F = "d"+"ia", Profisafe
I = "d"+"e", 4-20 mA
J = "d"+"e", 4-20 mA with Relay
K = "d"+"e", Modbus RTU
S = "d"+"e"+"ia", Foundation Fieldbus
T = "d"+"e"+"ia", Foundation Fieldbus SIF
W = "d"+"e"+"ia", Profibus
X = "d"+"e"+"ia", Profisafe

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Nomenclature for Junction Box, type EAC 01** (remote sensor)

EAC 01 $\frac{*}{1}\ \frac{*}{2}$

1: Enclosure material
- 0 = Aluminium enclosure
- 1 = Stainless steel enclosure

2: Not safety relevant

Nomenclature for Remote Box, type RCU 0***

RCU 0 $\frac{* \ * \ *}{1\ 2\ 3}$

1: Enclosure Material
- 2 = Aluminum
- 3 = Stainless Steel

2: Not safety relevant

3: Interface
- 0 = "d", 4-20 mA
- 1 = "d", 4-20 mA with Relay
- 2 = “d”, Modbus RTU
- A = "d"+"ia", Foundation Fieldbus
- B = "d"+"ia", Foundation Fieldbus SIF
- E = "d"+"ia", Profibus
- F = "d"+"ia", Profisafe
- I = "d"+"e", 4-20 mA
- J = "d"+"e", 4-20 mA with relay
- K = "d"+"e", Modbus RTU
- S = "d"+"e"+"ia", Foundation Fieldbus
- T = "d"+"e"+"ia", Foundation Fieldbus SIF
- W = "d"+"e"+"ia", Profibus
- X = "d"+"e"+"ia", Profisafe

The relation between ambient temperature and the assigned temperature class is as follows:

Table 1

Type	Ambient temperature range	Temperature class (Gas)	Max. surface temperature (Dust)
ITR 0*0* XTR 0*0*	-40 °C to +65 °C	T4	T130°C
All other ITR 0***-, XTR 0***-versions and RCU 0***	-40 °C to +80 °C	T4	T130°C

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SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 11 ATEX 1005 X, Issue: 03

Table 1 (continued)

Type	Ambient temperature range	Temperature class (Gas)	Max. surface temperature (Dust)
All versions	-40 °C to +40 °C	T6	T80°C
ETR 02/032*, ETR 04/052*	-40 °C to +70 °C	T4	T135°C
ETR 02/030*, ETR 04/050*	-40 °C to +70 °C	T4	T135°C
ETR 02/030*, ETR 04/050*	-40 °C to +40 °C	T6	T135°C

Electrical ratings:

Maximum supply wattage: P_{max}: 5 W

Supply:

ETR 02/03** series	10…30 VDC, 0.08…0.15 A
ITR 02/03** series	10…30 VDC, 0.1…0.75 A
XTR 02/03** series	10…30 VDC, 0.1…0.2 A
ETR 04/05** series	10…30 VDC, 0.1…0.35 A
ITR 04/05** series	10…30 VDC, 0.3…1.0 A
RCU 02/03** series	10…30 VDC, 0.3…1.0 A
XTR 04/05** series	10…30 VDC, 0.15…0.45 A
Relay	5A, 30 VDC or 230 VAC

Fieldbus circuit:
Field device as Fieldbus system in type of protection Intrinsic Safety Ex ia IIC; FISCO in accordance with IEC 60079-11, only for the interface types A; B; E; F; S; T; W and X

Electrical data,
Maximum values:

Type	Voltage, Ui [VDC]	Current, Ii [mA]	Power, Pi [mW]
ETR 04** ETR 05** ITR 04** ITR 05** RCU 02** RCU 03** XTR 04** XTR 05**	17.5	380	5320

For the Gas detection transmitters series ETR ****
Sensor circuit: in type of protection Intrinsic safety Ex ia IIC / IIIC;
only for connecting DrägerSensor or XS with adapter or ultrasonic sensor

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SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 11 ATEX 1005 X, Issue: 03

Changes with respect to earlier issues

Addition of new aluminum and stainless steel specifications with comparable material properties and identical tensile strength compared to the previously tested materials.

The connection openings provided may optionally be closed or left out in the cast, provided that the closing wall has the originally tested minimum wall thickness of 5 mm in aluminum or 3.5 mm in stainless steel.

(16) Test Report PTB Ex 21-11017

(17) Specific conditions of use

Repairs on the flameproof joints may only be made in accordance with the manufacturer's structural specifications. Repairs on the basis of the values in tables 1 and 2 of EN 60079-1 are not permitted.
The device variants incorporating a FISCO fieldbus interface as well as the Gas detection transmitter Type ETR 0*** must operate in circuits that are limited to overvoltage category I/II/III in accordance with IEC 60664-1 for FISCO field device operation.

Additional notes for installation and operation

The reference between ambient temperature in dependence of the temperature class and the surface temperature has to be taken from table 1 of this certificate or the operating instructions.

Components that are attached or installed (terminal compartments. bushings. cable glands. connectors) but are not included in the type approval documents shall be of a technical standard that complies with the specifications on the cover sheet. They must be suited for the operating conditions and come with a separate examination certificate. The special conditions specified for the components shall be complied with and the components shall be included in the type test, if necessary. This equally applies to the components that have already been mentioned in the technical description.

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Dr.-Ing. D. Markus
Direktor und Professor

Braunschweig, April 20, 2021

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT

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Translation

1 # EU-Type Examination Certificate Supplement 08

2 **Equipment intended for use in potentially explosive atmospheres Directive 2014/34/EU**

2 **Device with a measuring function for explosion protection Directive 2014/34/EU**

3 EU-Type Examination Certificate Number: **BVS 13 ATEX G 001 X**

4 Product: **Transmitters types ITR 041*, ITR 051*, ITR 042*, ITR 052*, XTR 040*, XTR 050*, XTR 041*, XTR 051*, XTR 042*, XTR 052*, ETR 040*, ETR 050***

5 Manufacturer: **Dräger Safety AG & Co. KGaA**

6 Address: **Revalstraße 1, 23560 Lübeck, Germany**

7 This supplementary certificate extends EU-Type Examination Certificate No. BVS 13 ATEX G 001 X to apply to products designed and constructed in accordance with the specification set out in the Annex of the said certificate but having any variations specified in the Annex attached to this certificate and the documents therein referred to.

8 DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential test report PFG-no. 41300313P NIX.

9 Compliance with the Essential Health and Safety Requirements with respect to the measuring function for explosion protection has been assured by compliance with:

EN 60079-29-1:2007
EN 60079-29-1:2016
EN 50104:2010
EN 50271:2010
EN 50271:2018

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

see PTB 11 ATEX 1005 X Ausgabe 01

DEKRA Testing and Certification GmbH
Bochum, 2020-02-04

Signed: Kilisch
Managing Director

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DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 13 ATEX G 001 X
Supplement 08

15 **Product description**

15.1 **Subject and type**

Transmitter types ITR 041*, ITR 051*, ITR 042*, ITR 052*, XTR 040*, XTR 050*, XTR 041*, XTR 051*, XTR 042*, XTR 052*, ETR 040*, ETR 050*

Coding of type:		(1)TR 0(2)(3)(4)
(1)	E, I or X	Sensor interface: infrared (I) or catalytic (X)
(2)	4 or 5	Material of housing: aluminium (4) or stainless steel (5)
(3)		internal sensor:
	1 or 2	for ITR: IDS 0101 (1) or IDS 0102 (2)
	0,1 or 2	for XTR: IDS 0002 (0) or XDS 0200 (1) or Ex-Sensor LC NPT (2)
		external sensor with junction box EAC 01**:
	1 or 2	for ITR: IDS 0101 (1) or IDS 0102 (2)
	0,1 or 2	for XTR: IDS 0002 (0) or XDS 0200 (1) or Ex-Sensor LC NPT (2)
		external sensor with other junction boxes:
	1 or 2	for ITR: IDS 0101 (1) or IDS 0102 (2) or IDS 0111 (1) or IDS 0112 (2)
	0,1 or 2	for XTR: IDS 0002 (0) or IDS 0012 (0) or Polytron SE Ex PR M* DQ (1) or Polytron SE Ex PR NPT1 DQ (1) or Polytron SE Ex HT M DQ (1) or Polytron SE Ex LC M1/2 DD (2)
	0	DrägerSensor (internal sensor only) for ETR 0*0*
(4)	0, 1, I, J	interface: "d", 4-20 mA (0) or "d", 4-20 mA with relays (1) or "d"+"e", 4-20 mA (I) or "d"+"e", 4-20 mA with relays (J)

15.2 **Description**

Reason for the supplement:
Modification of the software of the transmitter and re-testing of types ITR 041*, ITR 051*, ITR 042* and ITR 052* according to EN 60079-29-1:2016 and EN 50271:2018.
The test according to EN 50271:2018 concerns only transmitters types XTR 0*1*, XTR 0*2*, ETR 0*0*, ITR 041*, ITR 051*, ITR 042* and ITR 052*. The test according to EN 60079-29-1:2016 concerns only transmitters types XTR 0*1*, XTR 0*2*, ITR 041*, ITR 051*, ITR 042* and ITR 052*.

Description of Product

The transmitters ITR 0*1* (Polytron 8700 with sensor Dräger PIR 7000 type 334), ITR 0*2* (Polytron 8700 with sensor Dräger PIR 7000 type 340), XTR 0*0* (Polytron 8310 with Dräger Sensor IR) and XTR 0*1* (Polytron 8200 with DrägerSensor PR M DQ, HT M DQ or PR NPT DQ) are fixed equipment for the measurement of flammable gases and vapours mixed with air at volume fractions up to the lower explosive limit. The transmitters XTR 0*2* (Polytron 8200 with Ex-sensor LC M or LC NPT) are fixed equipment for the measurement of flammable gases and vapours mixed with air at volume fractions up to 10 % of the lower explosive limit. The sensor may be directly connected to the transmitter housing or operated as remote sensor.
The transmitters type ETR 0*0* (Polytron 8100 with DrägerSensor O_2 or DrägerSensor O_2 LS) are fixed equipment for the measurement of oxygen. The sensor is directly fitted to the transmitter housing. Operation with a remote sensor is not subject of this supplement to the EU-type examination certificate.
A 4-20 mA interface serves for transmission of the measured value to a control unit.
The transmitters can be equipped with a relay module that provides two alarm relays and one fault relay.

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15.3 **Parameters**

see PTB 11 ATEX 1005 X Ausgabe 01

15.4 **Measuring function for explosion protection**

This EU-type examination certificate covers:

- transmitters types ITR 041*, ITR 051*, ITR 042*, ITR 052*, XTR 040*, XTR 050*, XTR 041*, XTR 051*, XTR 042*, XTR 052* with software version 3.1.0 and transmitters types ETR 040* and ETR 050* with software version 3.1.0 (main) and 5 (SIOS)
- for transmitters types ITR 0*1* and ITR 0*2* (infrared sensor) the measuring function for those gases and vapours which are listed in the instruction manual with reference to the EU-type examination certificate BVS 08 ATEX G 001 X
- for transmitters type XTR 0*0* (infrared sensor) when operated in gas category methane the measuring function for methane in the measuring range 0 - 100 % LEL, when operated in gas category propane the measuring function for propane, i-butane, n-butane, n-pentane, n-hexane, n-octane, n-nonane and i-propanol in the measuring range 0 - 100 % LEL and ethanol and ethyl acetate in the measuring range 0 - 70 % LEL, and when operated in gas category ethylene the measuring function for ethylene, propylene, toluene, acetone and ethyl acetate in the measuring range 0 - 100 % LEL and methanol in the measuring range 0 - 70 % LEL
- for transmitters type XTR 0*1* (catalytic combustion sensor) the measuring function for methane, propane, acetone, acetylene, ammonia, special boiling point spirit 65/95, benzene, 1,3-butadiene, n-butane, 2-butanone, n-butyl acetate, diethyl ether, dimethyl ether, acetic acid, ethanol, ethylene, ethyl acetate, ethylene oxide, n-hexane, methanol, methyl methacrylate, n-octane, n-pentane, 2-propanol, propylene, propylene oxide, n-nonane, toluene, o-xylene and hydrogen in the measuring range 0 - 100 % LEL
- for transmitters type XTR 0*2* (catalytic combustion sensor) the measuring function for methane, propane, ethylene, acetylene, propylene, i-butylene, benzene, n-nonane and hydrogen in the measuring range 0 - 10 % LEL
- for transmitters type ETR 0*0* (electrochemical sensor) the measuring function for oxygen (measurement of inertisation) in the measuring range 0 - 5...25 % O_2
- use of the following outputs for safety relevant purposes:
  - display
  - 4-20 mA output for measured values
  - relays
- use of the following accessories for transmitters types ITR 0*1* and ITR 0*2*:
  - Spacer (part no. 6812617)
  - use of the following accessories for sensor PIR 7000:
    - Mounting set PIR 7000 (part no. 68 11 648)
    - Splash guard PIR 7000 (part no. 68 11 911)
    - Insect guard PIR 7000 (part no. 68 11 609)
    - Hydrophobic filter PIR 7000 (part no. 68 11 890)
    - Calibration adapter PIR 7000 (part no. 68 11 610)
    - Status indicator PIR 7000 (part no. 68 11 625)
    - Flowcell PIR 7000 (part no. 68 11 490)
    - Bump test adapter PIR 7000 (part no. 68 11 630)
    - Process adapter PIR 7000 (part no. 68 11 915)
    - Prozess cuvette PIR 7000 (part no. 68 11 415)
    - Prozess cuvette PIR 7000 SGR (part no. 68 13 219)
    - Junction box Ex e (part no. 68 11 898)
    - Junction boxes Ex d (part no. 45 20 561)
    - Magnetic wand (part no. 45 44 101)

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Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
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- use of the following accessories for transmitters type XTR 0*0*:
  - use of the following accessories for DrägerSensor IR:
    - Splash guard (part-no. 68 10 796)
    - Calibration adapter (part-no. 68 10 859)
    - Weather guard (part-no. 68 11 135)
    - Gassing-/process adapter (part-no. 68 11 330)
    - Magnetic wand (part-no. 45 44 101)
    - Junction box "Ex d" (part-no. 68 11 161)
    - Junction box "Ex e" (part-no. 68 11 299)
    - Junction box "Ex e" (part-no. 68 11 159)
- use of the following accessories for transmitters type XTR 0*1*:
  - Calibration adapter PE, Europe (part no. 68 06 978)
  - Process adapter (part no. 68 12 470)
  - Remote calibration adapter DQ (part no. 68 12 480)
- use of the following accessory for transmitters type XTR 0*2*:
  - Calibration adapter PE, Europe (part no. 68 06 978)
- use of the following accessories for transmitters type ETR 0*0*:
  - Calibration adapter PE, Europe (part no. 68 06 978)
  - Sensor test dongle (part no. 83 17 619)
  - Diagnostic dongle (part no. 83 17 860)

The EU-type examination includes the following deviations from the operating conditions required by EN 60079-29-1:

- Extended range of temperature at operation: -40 °C to +70 °C (with relay module)
  -40 °C to +77 °C (ITR 0*1* und ITR 0*2*; without relay module)
  -40 °C to +65 °C (XTR 0*0*)
  -40 °C to +80 °C (XTR 0*1* and XTR 0*2*; without relay module)
  -40 °C to +85 °C (Polytron SE Ex LC M1/2 DD)
- Extended range of ambient pressure: 70 kPa to 130 kPa
- Extended range of humidity of the measured gas: 0 % RH to 95 % RH (ITR 0*1*, ITR 0*2*, and XTR 0*0*)
  5 % RH to 95 % RH (XTR 0*1* and XTR 0*2*)

The EU-type examination includes the following deviations from the operating conditions required by EN 50104:

- Extended range of temperature at operation: -40 °C to +65 °C (DrägerSensor O_2 LS)
- Deviating range of temperature at operation: 0 °C to +55 °C (DrägerSensor O_2)
- Extended range of ambient pressure: 70 kPa to 130 kPa
- Extended range of humidity of the measured gas: 5 % RH to 95 % RH (DrägerSensor O_2 LS)
  10 % RH to 95 % RH (DrägerSensor O_2)

16 Test report

PFG-no. 41300313P NIX of 2020-02-04
EU-type examination certificate PTB 11 ATEX 1005 X Ausgabe 01 of 2017-05-10

This certificate may only be reproduced in its entirety and without any change.

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

17 Special Conditions for Use

- see EU-type examination certificate PTB 11 ATEX 1005 X Ausgabe 01
- If operated with a relay module:
  - The main alarm shall be configured "latching" and "non-acknowledgeable" or "pre-acknowledgeable".
  - The pre-alarm shall only be configured "acknowledgeable" if it is used for operation of an acoustic alarm device.
- For transmitters types ITR 0*1* and ITR 0*2*:
  - see EU-type examination certificate BVS 08 ATEX G 001 X
- For transmitters type XTR 0*0*:
  - see 9th supplement to the EU-type examination certificate BVS 05 ATEX E 143 X
- For transmitters type XTR 0*1*:
  - When exposed to a directed flow of air mixed with gas, the measured values can be increased by up to 32 %.
  - When operated with the remote calibration adapter DQ the measured values can be increased by up to 70 %.
- For transmitters type XTR 0*2*:
  - Operate the transmitter when connected to a control unit that has a latching over-range indication. Do not use internal alarm relays of the transmitter.
  - When exposed to a directed flow of air mixed with gas, the measured values can be increased by up to 32 %.
  - Adjust the transmitter with the sensor in its operational orientation.
  - False alarms can occur during warming up of the sensor.
- For transmitters type ETR 0*0*:
  - The response time t_{20} can exceed the limit of EN 50104 for small concentration changes.

18 Essential Health and Safety Requirements

The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are covered by the standards listed under item 9.

19 Drawings and Documents

Drawings and documents are listed in the confidential test report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, dated 2020-02-04

Managing Director

This certificate may only be reproduced in its entirety and without any change.

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

[1] # EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

[3] EU-Type Examination Certificate Number: **DEMKO 09 ATEX 0924202X Rev. 2**

[4] Product: **Gas Sensor XDS 02xx**

[5] Manufacturer: **Dräger Safety AG & Co. KGaA**

[6] Address: **Revalstrasse 1, 23560 Lübeck, Germany**

[7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. **US/UL/ExTR09.0006/03**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-1:2014** **EN 60079-31:2014**

[10] If the sign "**X**" is placed after the certificate number, it indicates that the product is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

[12] The marking of the product shall include the following:

II 2 G Ex db IIC T6...T3 Gb

II 2 D Ex tb IIIC T130°C…T195°C Db

Certification Manager
Jan-Erik Storgaard



This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2009-10-23
Re-issued: 2020-12-14

Notified Body UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com

This certificate may only be reproduced in its entirety and without any change, schedule included.

[13] [14]

Schedule
EU-TYPE EXAMINATION CERTIFICATE No.
DEMKO 09 ATEX 0924202X Rev. 2

[15] Description of Product

The Ex-Sensor XDS 020x (tapered NPT thread) may be mounted to enclosures, type of protection Flameproof Enclosure "d", employing female flameproof ¾" NPT threads.

Nomenclature for XDS 02 x x
I II III

I - Denotes basic gas sensor designation
XDS 02

II - Denotes threaded hub size located on the cover of the sensor
0 – 3/4" - 14 NPT male threads
1 – M25 x 1.5 male threads

III - Denotes limits on ambient temperature range
0 – -50 °C to +85 °C
1 – -50 °C to +155 °C

Performance testing

The measuring function of the product for explosion protection, according to Annex II clause 1.5.5, 1.5.6 and 1.5.7 of the Directive 2014/34/EU is not covered in this certificate.

Temperature range

The relation between ambient temperature and the assigned temperature class is as follows:

Ambient temperature range	Temperature class (G)	Maximum surface temperature (D)
-50 °C to +155 °C	T3	T195
-50 °C to +85 °C	T4	T130
-50 °C to +55 °C	T5	T130
-50 °C to +40 °C	T6	T130

Electrical data

Power supply:
30 V, max. 2 W

Routine tests

Routine tests according to EN 60079-1:2014, cl. 16 are required. As a suitable alternative for Overpressure testing the survey of welding parameters, such as yield, weld energy has been described by the Manufacturer and must be guaranteed during production process.

[16] Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17] Specific conditions of use:

- The XDS02** component sensor was evaluated for a temperature classification related to various ambient temperatures as shown in the table under Temperature Range.
- Dust tightness suitability of threaded entry is to be verified in combination with the ultimate enclosure in the end-use application. This applies to "Flameproof Enclosure," "Increased Safety" and "Protection by Enclosure" applications equally.
- Ingress Protection ratings to IP6X in accordance with EN 60529:1992/A2 2013, if applicable, are to be verified in combination with the ultimate enclosure in the end-use application.
- Metric thread does not comply with EN 60079-1 and may only be used with Ex certified enclosures of Equipment Level Protection Gb or Gc or when subject to special investigation in end use.
- No repair is possible on the welded construction of the flameproof enclosure.

[18] Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The Ex-Sensor XDS 02xx has in addition passed the tests for Ingress Protection to IP 6X in accordance with EN60529:1991+A1:2000+A2:2013.

The trademark Dräger will be used as the company identifier on the marking label.

This certificate may only be reproduced in its entirety and without any change, schedule included.

EU Type Examination Certificate CML 18ATEX1320X Issue 3

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment **Type 737 & 797 Ranges of Adaptors & Reducers and 747, 757 & 767 Ranges of Stopping Plugs**

3 Manufacturer **CMP Products Ltd**

4 Address **Unit 36 Nelson Way**
Nelson Park East,
Cramlington
NE23 1WH
UK

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 CML B.V., Chamber of Commerce No 67386717, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018	EN IEC 60079-7:2015+A1:2018
EN 60079-1:2014	EN 60079-31:2014

10 The equipment shall be marked with the following:

I M2	Ex db I Mb and/or Ex eb I Mb	II 2 G	Ex eb IIC Gb
II 2 G	Ex db IIC Gb and/or Ex eb IIC Gb	II 1 D	Ex ta IIIC Da
II 1 D	Ex ta IIIC Da		

(NOTE: Equipment marked with mining code are not available in aluminium)

11 Description

The Type 737 & 797 Ranges of Adaptors & Reducers and 747, 757 & 767 Ranges of Stopping Plugs are designed for explosive atmospheres, supplied in metallic and non-metallic (excluding 797 range) material options.
The Adaptor and Reducer product ranges convert an existing cable entry thread to another type and/or size. They comprise a hexagonal or cylindrical body – with flats – threaded from both ends providing the change required. These can be manufactured with equal threads or a combination of various sizes and types, unless otherwise stated.

- 737 Adaptor – Comprises a male (M) entry thread, adapting to a female (F) thread of the same size or larger, and limited to a change of two 'standard' thread sizes, e.g. M16 x M25.
- 737 Reducer – Comprises a male (M) entry thread, reducing to a female (F) thread, smaller and not limited by a specific number of thread sizes,
  e.g. M130 (M) x M10 (F) being acceptable.
- 797 Adaptor/Reducer – Comprises M/M or F/F threads only and limited to a change of two 'standard' thread sizes; with the exception of F/F thread options, where a change of three 'standard' thread sizes is allowed for M20 (F) x M10 (F) only.

Stopping Plug product ranges provide a means of blanking unused cable entries, giving Ex protection.

- 747 Stopping Plug – Comprises a cylindrical body with an external male thread and hexagonal, or square drive, recess or protrusion.
  - Non-tamperproof – allen key hexagonal, or square drive, recess only accessible outside the enclosure
  - Tamperproof – allen key hexagonal, or square drive, recess only accessible inside the enclosure
- 757 Stopping Plug – Comprises a hexagonal head and cylindrical body with an external male thread.
- 767 Stopping Plug – Comprises a cylindrical body with an external male thread and domed head with allen key hexagonal, or square drive, recess.

Materials of manufacture

Metallic:

- Brass; aluminium; stainless steel; mild steel.

Non-Metallic:

- Glass reinforced flame-retardant nylon (Excluded from Group I applications).

All brass manufactured component parts can be optionally nickel-plated. All mild steel manufactured components can be optionally zinc plated.

Design Options

- The male entry component can be fitted with an O-ring seal, which locates on the mating face with its associated enclosure. This option having the product type prefixed with the letter 'R'. Applicable to 737, 757, 767, and 797 (M/M only) product ranges.
- Alternative entry component thread forms; Metric, ET (conduit), PG, BSPP, BSPT, ISO, NPT, and NPSM. Refer to R12922A for thread specifications.
- Intermediate thread sizes permitted, e.g. M28.

Thread and Size Designations:

Table 1 details the size reference and thread designation of the thread options covered. Table 2 details the products and their approved thread size ranges:

Table 1

737 / 747 / 757 / 767 / 797 **Size Reference and Recognised Equivalent Threads**							
Size Ref.	**Metric**	**NPT**	**NPSM**	**BSPP**	**BSPT**	**PG DIN**	**E.T.**
10	M10	1/8	1/8	1/8	1/8	-	3/8
12	M12	1/4	1/4	1/4	1/4	PG7	1/2
16	M16	3/8	3/8	3/8	3/8	PG9	5/8
20	M20	1/2	1/2	1/2	1/2	PG11 PG13.5	3/4
25	M25	3/4	3/4	3/4	3/4	PG16 PG21	1
32	M32	1	1	1	1	-	1-1/4
40	M40	1-1/4	1-1/4	1-1/4	1-1/4	PG29	1-1/2
50	M50	1-1/2	1-1/2	1-1/2	1-1/2	PG36	2
63	M63	2	2	2	2	PG42	2-1/2
75	M75	2-1/2	2-1/2	2-1/2	2-1/2	PG48	3
90	M90	3	3	3	3	-	3-1/2
100	M100	3-1/2	3-1/2	3-1/2	3-1/2	-	4
115	M115	4	4	4	4	-	-
130	M130	5	5	5	5	-	-

NOTE: Metric entry threads of all model ranges may be manufactured with a thread pitch between 0.7 mm and 2.0 mm, with 1.5 mm as standard, with the exception of Size 10 which is only permitted with a 1.0 mm thread pitch.

Table 2

Product Range	Metallic*	
	Male Thread (Size Ref.)	**Female Thread (Size Ref.)**
737 Adaptor	12 to 130	12 to 130
737 Reducer	16 to 130	10 to 115
797	12 to 130	10 to 130
747 / 757 / 767	12 to 130	-
* Stainless Steel only, when any thread size 10 or 12 is required		
Product Range	**Non-metallic***	
	Male Thread (Size Ref.)	**Female Thread (Size Ref.)**
737 Adaptor	20 to 75	20 to 90
737 Reducer	20 to 90	16 to 75
747 / 757 / 767	20 to 100	-
* Excluded from Group I applications		

Variation 1

This variation introduces the following modifications:

i. The introduction of a universal certificate schedule drawing detailing critical parts.
ii. The introduction of additional sizes.
iii. The introduction of an additional Specific Condition of Use.
iv. The amendment of drawing text and formatting, including consolidation, for consistency that has no effect on the technical content.
v. The update to the latest standard editions.

Variation 2

This variation introduces the following modification:

i. Correction to typographical errors on this certificate, relating to the ATEX certificate number.

Variation 3

This variation introduces the following modifications:

i. Introduction of a square socket (recessed) and a square plug (protrusion) on the 747 Stopping plugs and 767 Stopping plugs.
ii. Modification to the specific conditions of use

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	18 Feb 2019	R12060D/00	Issue of the prime certificate
1	04 May 2021	R12735B/00 R12922A	Introduction of variation 1
2	26 Jan 2022	N/A	Introduction of variation 2 Correction of typographical errors only, no supporting report was required.
3	09 Feb 2024	R16280A/00	Introduction of Variation 3

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.

ii. Non-metallic and aluminium adaptors, reducers and stopping plugs shall not bear any Group I marking.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

i. The interfaces between a male thread of an adaptor/reducer and an associated enclosure, between a female thread of an adaptor/reducer and a cable entry device, and between a stopping plug and an associated enclosure cannot be defined. Therefore, it is the installer's responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.

ii. Non-metallic adaptors, reducers and stopping plugs shall not be used in enclosures where the temperature, at the point of mounting, is outside the range of -20°C to +60°C.

iii. The installer shall refer to the manufacturer's instructions for the action necessary regarding the electrostatic risk associated with non-metallic adaptors, reducers and stopping plugs.

iv. Any cable gland used with the non-metallic adaptors and reducers shall be non-metallic.

v. The adaptors, reducers and stopping plugs sizes 10 & 12 have been tested to a mechanical impact of 7 J and therefore, when used in Group I applications, shall only be installed where the risk of mechanical impact is low.

Certificate Annex

Certificate Number	**CML 18ATEX1320X**
Equipment	**Type 737 & 797 Ranges of Adaptors & Reducers and 747, 757 & 767 Ranges of Stopping Plugs**
Manufacturer	**CMP Products Ltd**

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
GA077	1 of 1	06	11 Feb 2019	ATEX Adaptors, Reducers and Stopping Plugs
GA133	1 of 1	05	11 Feb 2019	ATEX Non-metallic Adaptors, Reducers and Stopping Plugs
GA134	1 of 1	03	11 Feb 2019	Type 797 Male/Male & Female/Female Adaptors
GA307	1 of 1	03	11 Feb 2019	Type 737 & Type 797 Adaptors (Optional Sizes)
SCH0070	1 of 1	07	11 Feb 2019	Adaptor/Reducer Cross-Reference Chart

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
GA2372	1 to 2	00	04 May 2021	Adaptors, Reducers and Stopping Plugs
SCH0070	1 of 1	08	04 May 2021	Adaptor/Reducer Cross-Reference Chart

Issue 2

No drawings were introduced or revised under this issue.

Issue 3

Drawing No	Sheets	Rev	Approved date	Title
GA2372	1 to 2	02	09 Feb 2024	ADAPTORS, REDUCERS, AND STOPPING PLUGS

ULTRASONIC GAS DETECTOR

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Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

(1) EU-TYPE-EXAMINATION CERTIFICATE

(Translation)

(2) Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

PTB 11 ATEX 1005 X **Issue: 3**

(4) Product: Gas detection transmitters ETR/ITR/XTR 0***, Remote Box RCU 0***

(5) Manufacturer: Dräger Safety AG & Co. KGaA

(6) Address: Revalstraße 1, 23560 Lübeck, Germany

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential Test Report PTB Ex 21-11017.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC60079-0:2018; EN 60079-1:2014+AC:2018;
EN IEC 60079-7:2015+A1:2018; EN 60079-11:2012; EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II 2 G Ex db IIC T6/T4 Gb resp.
II 2 G Ex db eb IIC T6/T4 Gb resp.
II 2 D Ex tb IIIC T80°C/T130°C Db resp.
II 2G Ex db ia IIC T6/T4 Gb resp.
II 2G Ex db eb ia IIC T6/T4 Gb resp.
II 2 G Ex db [ia] IIC T6/T4 Gb resp.
II 2 G Ex db ia [ia] IIC T6/T4 Gb resp.

ZSEx001e c

EU-Type Examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
In case of dispute, the German text shall prevail.

Physikalisch-Technische Bundesanstalt • Bundesallee 100 • 38116 Braunschweig • GERMANY

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

(1) # EU-TYPE-EXAMINATION CERTIFICATE

(Translation)

II 2 G Ex db eb [ia] IIC T6/T4 Gb resp.
II 2 G Ex db eb ia [ia] IIC T6/T4 Gb resp.
II 2 D Ex tb [ia] IIIC T135°C Db

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, April 20, 2021

Dr.-Ing. D. Markus
Direktor und Professor

ZSEx001e c

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(13) # SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 11 ATEX 1005 X, Issue: 03**

(15) Description of Product

The Gas detection transmitters ETR/ITR/XTR 0*** consist of three different types of sensors and interfaces. The Gas detection transmitter type ETR 0*** uses the electrochemical sensing principle, the Gas detection transmitter type ITR 0*** uses the infrared sensing principle and the Gas detection transmitter type XTR 0*** uses the catalytic sensing principle or infrared sensing principle with a catalytic sensor interface.

The Remote Box type RCU 0*** shall only be used with separate certified sensors. The sensor frontend (EC sensing head) of the ETR 0*** series comprises a galvanically separating barrier circuit (inside the flameproof enclosure) and intrinsically safe electronics located outside the flameproof enclosure as well as an electro-chemical resp. ultrasonic sensor - all of them being covered by this certificate. The sensors of the ITR 0*** and XTR 0*** series are covered by separate certifications, which are accepted under this certificate.
The internal electronics optionally covers the intrinsically safe fieldbus under consideration of the maximum FISCO input ratings applicable for the operation as both FISCO Field device or alternatively non- intrinsically safe fieldbus Modbus RTU.

The connection of the equipment is made on the one hand via direct cable entries into the flameproof enclosure (E,I,X)TR 0(2…5)*(0...F) or on the other hand via a terminal box of the increased safety type of protection (E,I,X)TR 0(2…5)*(I...X). For remote applications, the equipment can optionally be connected to the flameproof terminal box EAC 01**.

Nomenclature:

$\frac{*}{1}$**TR 0** $\frac{*}{2}\ \frac{*}{3}\ \frac{*}{4}$

1: Sensing principle
- E = electrochemical
- I = infrared
- X = catalytic

2: Series and enclosure material
- 2 = 02/03 aluminium enclosure
- 3 = 02/03 series, stainless steel enclosure
- 4 = 04/05 series, aluminium enclosure
- 5 = 04/05 series, stainless steel enclosure

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3: Sensor

**ITR 0 *_* *

3: Sensor

0 = IDS 0001
1 = IDS 0101
2 = IDS 0102
5 = IDS 0105

**ETR 0 *_* *

3: Sensor

0 = DrägerSensor or XS with Adapter
2 = Ultrasonic sensor

**XTR 0 *_* *

3: Sensor

0 = IDS 0002
1 = XDS 020*
2 = Ex-Sensor LC NPT

4: Interface

0 = "d", 4-20 mA
1 = "d", 4-20 mA with Relay
2 = “d”, Modbus RTU
A = "d"+"ia", Foundation Fieldbus
B = "d"+"ia", Foundation Fieldbus SIF
E = "d"+"ia", Profibus
F = "d"+"ia", Profisafe
I = "d"+"e", 4-20 mA
J = "d"+"e", 4-20 mA with Relay
K = "d"+"e", Modbus RTU
S = "d"+"e"+"ia", Foundation Fieldbus
T = "d"+"e"+"ia", Foundation Fieldbus SIF
W = "d"+"e"+"ia", Profibus
X = "d"+"e"+"ia", Profisafe

EU-Type Examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
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Nomenclature for Junction Box, type EAC 01** (remote sensor)

EAC 01 $\frac{*}{1}\ \frac{*}{2}$

1: Enclosure material
- 0 = Aluminium enclosure
- 1 = Stainless steel enclosure

2: Not safety relevant

Nomenclature for Remote Box, type RCU 0***

RCU 0 $\frac{* \ * \ *}{1\ 2\ 3}$

1: Enclosure Material
- 2 = Aluminum
- 3 = Stainless Steel

2: Not safety relevant

3: Interface
- 0 = "d", 4-20 mA
- 1 = "d", 4-20 mA with Relay
- 2 = “d”, Modbus RTU
- A = "d"+"ia", Foundation Fieldbus
- B = "d"+"ia", Foundation Fieldbus SIF
- E = "d"+"ia", Profibus
- F = "d"+"ia", Profisafe
- I = "d"+"e", 4-20 mA
- J = "d"+"e", 4-20 mA with relay
- K = "d"+"e", Modbus RTU
- S = "d"+"e"+"ia", Foundation Fieldbus
- T = "d"+"e"+"ia", Foundation Fieldbus SIF
- W = "d"+"e"+"ia", Profibus
- X = "d"+"e"+"ia", Profisafe

The relation between ambient temperature and the assigned temperature class is as follows:

Table 1

Type	Ambient temperature range	Temperature class (Gas)	Max. surface temperature (Dust)
ITR 0*0* XTR 0*0*	-40 °C to +65 °C	T4	T130°C
All other ITR 0***-, XTR 0***- versions and RCU 0***	-40 °C to +80 °C	T4	T130°C

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In case of dispute, the German text shall prevail.

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SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 11 ATEX 1005 X, Issue: 03

Table 1 (continued)

Type	Ambient temperature range	Temperature class (Gas)	Max. surface temperature (Dust)
All versions	-40 °C to +40 °C	T6	T80°C
ETR 02/032*, ETR 04/052*	-40 °C to +70 °C	T4	T135°C
ETR 02/030*, ETR 04/050*	-40 °C to +70 °C	T4	T135°C
ETR 02/030*, ETR 04/050*	-40 °C to +40 °C	T6	T135°C

Electrical ratings:

Maximum supply wattage: P_{max}: 5 W

Supply:

ETR 02/03** series	10…30 VDC, 0.08…0.15 A
ITR 02/03** series	10…30 VDC, 0.1…0.75 A
XTR 02/03** series	10…30 VDC, 0.1…0.2 A
ETR 04/05** series	10…30 VDC, 0.1…0.35 A
ITR 04/05** series	10…30 VDC, 0.3…1.0 A
RCU 02/03** series	10…30 VDC, 0.3…1.0 A
XTR 04/05** series	10…30 VDC, 0.15…0.45 A
Relay	5A, 30 VDC or 230 VAC

Fieldbus circuit:
Field device as Fieldbus system in type of protection Intrinsic Safety Ex ia IIC; FISCO in accordance with IEC 60079-11, only for the interface types A; B; E; F; S; T; W and X

Electrical data,
Maximum values:

Type	Voltage, Ui [VDC]	Current, Ii [mA]	Power, Pi [mW]
ETR 04** ETR 05** ITR 04** ITR 05** RCU 02** RCU 03** XTR 04** XTR 05**	17.5	380	5320

For the Gas detection transmitters series ETR ****
Sensor circuit: in type of protection Intrinsic safety Ex ia IIC / IIIC;
only for connecting DrägerSensor or XS with adapter or ultrasonic sensor

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SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 11 ATEX 1005 X, Issue: 03

Changes with respect to earlier issues

Addition of new aluminum and stainless steel specifications with comparable material properties and identical tensile strength compared to the previously tested materials.

The connection openings provided may optionally be closed or left out in the cast, provided that the closing wall has the originally tested minimum wall thickness of 5 mm in aluminum or 3.5 mm in stainless steel.

(16) Test Report PTB Ex 21-11017

(17) Specific conditions of use

Repairs on the flameproof joints may only be made in accordance with the manufacturer's structural specifications. Repairs on the basis of the values in tables 1 and 2 of EN 60079-1 are not permitted.
The device variants incorporating a FISCO fieldbus interface as well as the Gas detection transmitter Type ETR 0*** must operate in circuits that are limited to overvoltage category I/II/III in accordance with IEC 60664-1 for FISCO field device operation.

Additional notes for installation and operation

The reference between ambient temperature in dependence of the temperature class and the surface temperature has to be taken from table 1 of this certificate or the operating instructions.

Components that are attached or installed (terminal compartments. bushings. cable glands. connectors) but are not included in the type approval documents shall be of a technical standard that complies with the specifications on the cover sheet. They must be suited for the operating conditions and come with a separate examination certificate. The special conditions specified for the components shall be complied with and the components shall be included in the type test, if necessary. This equally applies to the components that have already been mentioned in the technical description.

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Dr.-Ing. D. Markus
Direktor und Professor

Braunschweig, April 20, 2021

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT

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OXYGEN POINT DETECTORS

(GAS TRASMITTER - GAS DETECTOR)

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Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

(1) EU-TYPE-EXAMINATION CERTIFICATE

(Translation)

(2) Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

PTB 11 ATEX 1005 X **Issue: 3**

(4) Product: Gas detection transmitters ETR/ITR/XTR 0***, Remote Box RCU 0***

(5) Manufacturer: Dräger Safety AG & Co. KGaA

(6) Address: Revalstraße 1, 23560 Lübeck, Germany

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential Test Report PTB Ex 21-11017.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC60079-0:2018; EN 60079-1:2014+AC:2018;
EN IEC 60079-7:2015+A1:2018; EN 60079-11:2012; EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II 2 G Ex db IIC T6/T4 Gb resp.
II 2 G Ex db eb IIC T6/T4 Gb resp.
II 2 D Ex tb IIIC T80°C/T130°C Db resp.
II 2G Ex db ia IIC T6/T4 Gb resp.
II 2G Ex db eb ia IIC T6/T4 Gb resp.
II 2 G Ex db [ia] IIC T6/T4 Gb resp.
II 2 G Ex db ia [ia] IIC T6/T4 Gb resp.

ZSEx001e c

EU-Type Examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
In case of dispute, the German text shall prevail.

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Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

(1) **EU-TYPE-EXAMINATION CERTIFICATE**

(Translation)

II 2 G Ex db eb [ia] IIC T6/T4 Gb resp.
II 2 G Ex db eb ia [ia] IIC T6/T4 Gb resp.
II 2 D Ex tb [ia] IIIC T135°C Db

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, April 20, 2021

Dr.-Ing. D. Markus
Direktor und Professor

ZSEx001e c

EU-Type Examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
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(13) # SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 11 ATEX 1005 X, Issue: 03**

(15) Description of Product

The Gas detection transmitters ETR/ITR/XTR 0*** consist of three different types of sensors and interfaces. The Gas detection transmitter type ETR 0*** uses the electrochemical sensing principle, the Gas detection transmitter type ITR 0*** uses the infrared sensing principle and the Gas detection transmitter type XTR 0*** uses the catalytic sensing principle or infrared sensing principle with a catalytic sensor interface.

The Remote Box type RCU 0*** shall only be used with separate certified sensors. The sensor frontend (EC sensing head) of the ETR 0*** series comprises a galvanically separating barrier circuit (inside the flameproof enclosure) and intrinsically safe electronics located outside the flameproof enclosure as well as an electro-chemical resp. ultrasonic sensor - all of them being covered by this certificate. The sensors of the ITR 0*** and XTR 0*** series are covered by separate certifications, which are accepted under this certificate.
The internal electronics optionally covers the intrinsically safe fieldbus under consideration of the maximum FISCO input ratings applicable for the operation as both FISCO Field device or alternatively non- intrinsically safe fieldbus Modbus RTU.

The connection of the equipment is made on the one hand via direct cable entries into the flameproof enclosure (E,I,X)TR 0(2…5)*(0...F) or on the other hand via a terminal box of the increased safety type of protection (E,I,X)TR 0(2…5)*(I...X). For remote applications, the equipment can optionally be connected to the flameproof terminal box EAC 01**.

Nomenclature:

$\frac{*}{1}$**TR 0** $\frac{*}{2}\ \frac{*}{3}\ \frac{*}{4}$

1: Sensing principle
- E = electrochemical
- I = infrared
- X = catalytic

2: Series and enclosure material
- 2 = 02/03 aluminium enclosure
- 3 = 02/03 series, stainless steel enclosure
- 4 = 04/05 series, aluminium enclosure
- 5 = 04/05 series, stainless steel enclosure

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3: Sensor

**ITR 0 *_* *

3: Sensor

0 = IDS 0001
1 = IDS 0101
2 = IDS 0102
5 = IDS 0105

**ETR 0 *_* *

3: Sensor

0 = DrägerSensor or XS with Adapter
2 = Ultrasonic sensor

**XTR 0 *_* *

3: Sensor

0 = IDS 0002
1 = XDS 020*
2 = Ex-Sensor LC NPT

4: Interface

0 = "d", 4-20 mA
1 = "d", 4-20 mA with Relay
2 = “d”, Modbus RTU
A = "d"+"ia", Foundation Fieldbus
B = "d"+"ia", Foundation Fieldbus SIF
E = "d"+"ia", Profibus
F = "d"+"ia", Profisafe
I = "d"+"e", 4-20 mA
J = "d"+"e", 4-20 mA with Relay
K = "d"+"e", Modbus RTU
S = "d"+"e"+"ia", Foundation Fieldbus
T = "d"+"e"+"ia", Foundation Fieldbus SIF
W = "d"+"e"+"ia", Profibus
X = "d"+"e"+"ia", Profisafe

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Nomenclature for Junction Box, type EAC 01** (remote sensor)

EAC 01 $\frac{*}{1}\ \frac{*}{2}$

1: Enclosure material
- 0 = Aluminium enclosure
- 1 = Stainless steel enclosure

2: Not safety relevant

Nomenclature for Remote Box, type RCU 0***

RCU 0 $\frac{* \ * \ *}{1\ 2\ 3}$

1: Enclosure Material
- 2 = Aluminum
- 3 = Stainless Steel

2: Not safety relevant

3: Interface
- 0 = "d", 4-20 mA
- 1 = "d", 4-20 mA with Relay
- 2 = “d”, Modbus RTU
- A = "d"+"ia", Foundation Fieldbus
- B = "d"+"ia", Foundation Fieldbus SIF
- E = "d"+"ia", Profibus
- F = "d"+"ia", Profisafe
- I = "d"+"e", 4-20 mA
- J = "d"+"e", 4-20 mA with relay
- K = "d"+"e", Modbus RTU
- S = "d"+"e"+"ia", Foundation Fieldbus
- T = "d"+"e"+"ia", Foundation Fieldbus SIF
- W = "d"+"e"+"ia", Profibus
- X = "d"+"e"+"ia", Profisafe

The relation between ambient temperature and the assigned temperature class is as follows:

Table 1

Type	Ambient temperature range	Temperature class (Gas)	Max. surface temperature (Dust)
ITR 0*0* XTR 0*0*	-40 °C to +65 °C	T4	T130°C
All other ITR 0***-, XTR 0***- versions and RCU 0***	-40 °C to +80 °C	T4	T130°C

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SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 11 ATEX 1005 X, Issue: 03

Table 1 (continued)

Type	Ambient temperature range	Temperature class (Gas)	Max. surface temperature (Dust)
All versions	-40 °C to +40 °C	T6	T80°C
ETR 02/032*, ETR 04/052*	-40 °C to +70 °C	T4	T135°C
ETR 02/030*, ETR 04/050*	-40 °C to +70 °C	T4	T135°C
ETR 02/030*, ETR 04/050*	-40 °C to +40 °C	T6	T135°C

Electrical ratings:

Maximum supply wattage: P_{max}: 5 W

Supply:

ETR 02/03** series	10…30 VDC, 0.08…0.15 A
ITR 02/03** series	10…30 VDC, 0.1…0.75 A
XTR 02/03** series	10…30 VDC, 0.1…0.2 A
ETR 04/05** series	10…30 VDC, 0.1…0.35 A
ITR 04/05** series	10…30 VDC, 0.3…1.0 A
RCU 02/03** series	10…30 VDC, 0.3…1.0 A
XTR 04/05** series	10…30 VDC, 0.15…0.45 A
Relay	5A, 30 VDC or 230 VAC

Fieldbus circuit:
Field device as Fieldbus system in type of protection Intrinsic Safety Ex ia IIC; FISCO in accordance with IEC 60079-11, only for the interface types A; B; E; F; S; T; W and X

Electrical data,
Maximum values:

Type	Voltage, Ui [VDC]	Current, Ii [mA]	Power, Pi [mW]
ETR 04** ETR 05** ITR 04** ITR 05** RCU 02** RCU 03** XTR 04** XTR 05**	17.5	380	5320

For the Gas detection transmitters series ETR ****
Sensor circuit: in type of protection Intrinsic safety Ex ia IIC / IIIC;
only for connecting DrägerSensor or XS with adapter or ultrasonic sensor

EU-Type Examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
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SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 11 ATEX 1005 X, Issue: 03

Changes with respect to earlier issues

Addition of new aluminum and stainless steel specifications with comparable material properties and identical tensile strength compared to the previously tested materials.

The connection openings provided may optionally be closed or left out in the cast, provided that the closing wall has the originally tested minimum wall thickness of 5 mm in aluminum or 3.5 mm in stainless steel.

(16) Test Report PTB Ex 21-11017

(17) Specific conditions of use

Repairs on the flameproof joints may only be made in accordance with the manufacturer's structural specifications. Repairs on the basis of the values in tables 1 and 2 of EN 60079-1 are not permitted.
The device variants incorporating a FISCO fieldbus interface as well as the Gas detection transmitter Type ETR 0*** must operate in circuits that are limited to overvoltage category I/II/III in accordance with IEC 60664-1 for FISCO field device operation.

Additional notes for installation and operation

The reference between ambient temperature in dependence of the temperature class and the surface temperature has to be taken from table 1 of this certificate or the operating instructions.

Components that are attached or installed (terminal compartments. bushings. cable glands. connectors) but are not included in the type approval documents shall be of a technical standard that complies with the specifications on the cover sheet. They must be suited for the operating conditions and come with a separate examination certificate. The special conditions specified for the components shall be complied with and the components shall be included in the type test, if necessary. This equally applies to the components that have already been mentioned in the technical description.

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Dr.-Ing. D. Markus
Direktor und Professor

Braunschweig, April 20, 2021

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Translation

1 # EU-Type Examination Certificate Supplement 08

2 **Equipment intended for use in potentially explosive atmospheres Directive 2014/34/EU**

2 **Device with a measuring function for explosion protection Directive 2014/34/EU**

3 EU-Type Examination Certificate Number: **BVS 13 ATEX G 001 X**

4 Product: **Transmitters types ITR 041*, ITR 051*, ITR 042*, ITR 052*, XTR 040*, XTR 050*, XTR 041*, XTR 051*, XTR 042*, XTR 052*, ETR 040*, ETR 050***

5 Manufacturer: **Dräger Safety AG & Co. KGaA**

6 Address: **Revalstraße 1, 23560 Lübeck, Germany**

7 This supplementary certificate extends EU-Type Examination Certificate No. BVS 13 ATEX G 001 X to apply to products designed and constructed in accordance with the specification set out in the Annex of the said certificate but having any variations specified in the Annex attached to this certificate and the documents therein referred to.

8 DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential test report PFG-no. 41300313P NIX.

9 Compliance with the Essential Health and Safety Requirements with respect to the measuring function for explosion protection has been assured by compliance with:

EN 60079-29-1:2007
EN 60079-29-1:2016
EN 50104:2010
EN 50271:2010
EN 50271:2018

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

see PTB 11 ATEX 1005 X Ausgabe 01

DEKRA Testing and Certification GmbH
Bochum, 2020-02-04

Signed: Kilisch
Managing Director

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DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 13 ATEX G 001 X
Supplement 08

15 **Product description**

15.1 **Subject and type**

Transmitter types ITR 041*, ITR 051*, ITR 042*, ITR 052*, XTR 040*, XTR 050*, XTR 041*, XTR 051*, XTR 042*, XTR 052*, ETR 040*, ETR 050*

Coding of type:		(1)TR 0(2)(3)(4)
(1)	E, I or X	Sensor interface: infrared (I) or catalytic (X)
(2)	4 or 5	Material of housing: aluminium (4) or stainless steel (5)
(3)		internal sensor:
	1 or 2	for ITR: IDS 0101 (1) or IDS 0102 (2)
	0,1 or 2	for XTR: IDS 0002 (0) or XDS 0200 (1) or Ex-Sensor LC NPT (2)
		external sensor with junction box EAC 01**:
	1 or 2	for ITR: IDS 0101 (1) or IDS 0102 (2)
	0,1 or 2	for XTR: IDS 0002 (0) or XDS 0200 (1) or Ex-Sensor LC NPT (2)
		external sensor with other junction boxes:
	1 or 2	for ITR: IDS 0101 (1) or IDS 0102 (2) or IDS 0111 (1) or IDS 0112 (2)
	0,1 or 2	for XTR: IDS 0002 (0) or IDS 0012 (0) or Polytron SE Ex PR M* DQ (1) or Polytron SE Ex PR NPT1 DQ (1) or Polytron SE Ex HT M DQ (1) or Polytron SE Ex LC M1/2 DD (2)
	0	DrägerSensor (internal sensor only) for ETR 0*0*
(4)	0, 1, I, J	interface: "d", 4-20 mA (0) or "d", 4-20 mA with relays (1) or "d"+"e", 4-20 mA (I) or "d"+"e", 4-20 mA with relays (J)

15.2 **Description**

Reason for the supplement:
Modification of the software of the transmitter and re-testing of types ITR 041*, ITR 051*, ITR 042* and ITR 052* according to EN 60079-29-1:2016 and EN 50271:2018.
The test according to EN 50271:2018 concerns only transmitters types XTR 0*1*, XTR 0*2*, ETR 0*0*, ITR 041*, ITR 051*, ITR 042* and ITR 052*. The test according to EN 60079-29-1:2016 concerns only transmitters types XTR 0*1*, XTR 0*2*, ITR 041*, ITR 051*, ITR 042* and ITR 052*.

Description of Product

The transmitters ITR 0*1* (Polytron 8700 with sensor Dräger PIR 7000 type 334), ITR 0*2* (Polytron 8700 with sensor Dräger PIR 7000 type 340), XTR 0*0* (Polytron 8310 with Dräger Sensor IR) and XTR 0*1* (Polytron 8200 with DrägerSensor PR M DQ, HT M DQ or PR NPT DQ) are fixed equipment for the measurement of flammable gases and vapours mixed with air at volume fractions up to the lower explosive limit. The transmitters XTR 0*2* (Polytron 8200 with Ex-sensor LC M or LC NPT) are fixed equipment for the measurement of flammable gases and vapours mixed with air at volume fractions up to 10 % of the lower explosive limit. The sensor may be directly connected to the transmitter housing or operated as remote sensor.
The transmitters type ETR 0*0* (Polytron 8100 with DrägerSensor O_2 or DrägerSensor O_2 LS) are fixed equipment for the measurement of oxygen. The sensor is directly fitted to the transmitter housing. Operation with a remote sensor is not subject of this supplement to the EU-type examination certificate.
A 4-20 mA interface serves for transmission of the measured value to a control unit.
The transmitters can be equipped with a relay module that provides two alarm relays and one fault relay.

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DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

15.3 **Parameters**

see PTB 11 ATEX 1005 X Ausgabe 01

15.4 **Measuring function for explosion protection**

This EU-type examination certificate covers:

- transmitters types ITR 041*, ITR 051*, ITR 042*, ITR 052*, XTR 040*, XTR 050*, XTR 041*, XTR 051*, XTR 042*, XTR 052* with software version 3.1.0 and transmitters types ETR 040* and ETR 050* with software version 3.1.0 (main) and 5 (SIOS)
- for transmitters types ITR 0*1* and ITR 0*2* (infrared sensor) the measuring function for those gases and vapours which are listed in the instruction manual with reference to the EU-type examination certificate BVS 08 ATEX G 001 X
- for transmitters type XTR 0*0* (infrared sensor) when operated in gas category methane the measuring function for methane in the measuring range 0 - 100 % LEL, when operated in gas category propane the measuring function for propane, i-butane, n-butane, n-pentane, n-hexane, n-octane, n-nonane and i-propanol in the measuring range 0 - 100 % LEL and ethanol and ethyl acetate in the measuring range 0 - 70 % LEL, and when operated in gas category ethylene the measuring function for ethylene, propylene, toluene, acetone and ethyl acetate in the measuring range 0 - 100 % LEL and methanol in the measuring range 0 - 70 % LEL
- for transmitters type XTR 0*1* (catalytic combustion sensor) the measuring function for methane, propane, acetone, acetylene, ammonia, special boiling point spirit 65/95, benzene, 1,3-butadiene, n-butane, 2-butanone, n-butyl acetate, diethyl ether, dimethyl ether, acetic acid, ethanol, ethylene, ethyl acetate, ethylene oxide, n-hexane, methanol, methyl methacrylate, n-octane, n-pentane, 2-propanol, propylene, propylene oxide, n-nonane, toluene, o-xylene and hydrogen in the measuring range 0 - 100 % LEL
- for transmitters type XTR 0*2* (catalytic combustion sensor) the measuring function for methane, propane, ethylene, acetylene, propylene, i-butylene, benzene, n-nonane and hydrogen in the measuring range 0 - 10 % LEL
- for transmitters type ETR 0*0* (electrochemical sensor) the measuring function for oxygen (measurement of inertisation) in the measuring range 0 - 5...25 % O_2
- use of the following outputs for safety relevant purposes:
  - display
  - 4-20 mA output for measured values
  - relays
- use of the following accessories for transmitters types ITR 0*1* and ITR 0*2*:
  - Spacer (part no. 6812617)
  - use of the following accessories for sensor PIR 7000:
    - Mounting set PIR 7000 (part no. 68 11 648)
    - Splash guard PIR 7000 (part no. 68 11 911)
    - Insect guard PIR 7000 (part no. 68 11 609)
    - Hydrophobic filter PIR 7000 (part no. 68 11 890)
    - Calibration adapter PIR 7000 (part no. 68 11 610)
    - Status indicator PIR 7000 (part no. 68 11 625)
    - Flowcell PIR 7000 (part no. 68 11 490)
    - Bump test adapter PIR 7000 (part no. 68 11 630)
    - Process adapter PIR 7000 (part no. 68 11 915)
    - Prozess cuvette PIR 7000 (part no. 68 11 415)
    - Prozess cuvette PIR 7000 SGR (part no. 68 13 219)
    - Junction box Ex e (part no. 68 11 898)
    - Junction boxes Ex d (part no. 45 20 561)
    - Magnetic wand (part no. 45 44 101)

This certificate may only be reproduced in its entirety and without any change.

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

- use of the following accessories for transmitters type XTR 0*0*:
  - use of the following accessories for DrägerSensor IR:
    - Splash guard (part-no. 68 10 796)
    - Calibration adapter (part-no. 68 10 859)
    - Weather guard (part-no. 68 11 135)
    - Gassing-/process adapter (part-no. 68 11 330)
    - Magnetic wand (part-no. 45 44 101)
    - Junction box "Ex d" (part-no. 68 11 161)
    - Junction box "Ex e" (part-no. 68 11 299)
    - Junction box "Ex e" (part-no. 68 11 159)
- use of the following accessories for transmitters type XTR 0*1*:
  - Calibration adapter PE, Europe (part no. 68 06 978)
  - Process adapter (part no. 68 12 470)
  - Remote calibration adapter DQ (part no. 68 12 480)
- use of the following accessory for transmitters type XTR 0*2*:
  - Calibration adapter PE, Europe (part no. 68 06 978)
- use of the following accessories for transmitters type ETR 0*0*:
  - Calibration adapter PE, Europe (part no. 68 06 978)
  - Sensor test dongle (part no. 83 17 619)
  - Diagnostic dongle (part no. 83 17 860)

The EU-type examination includes the following deviations from the operating conditions required by EN 60079-29-1:

- Extended range of temperature at operation: -40 °C to +70 °C (with relay module)
  -40 °C to +77 °C (ITR 0*1* und ITR 0*2*; without relay module)
  -40 °C to +65 °C (XTR 0*0*)
  -40 °C to +80 °C (XTR 0*1* and XTR 0*2*; without relay module)
  -40 °C to +85 °C (Polytron SE Ex LC M1/2 DD)
- Extended range of ambient pressure: 70 kPa to 130 kPa
- Extended range of humidity of the measured gas: 0 % RH to 95 % RH (ITR 0*1*, ITR 0*2*, and XTR 0*0*)
  5 % RH to 95 % RH (XTR 0*1* and XTR 0*2*)

The EU-type examination includes the following deviations from the operating conditions required by EN 50104:

- Extended range of temperature at operation: -40 °C to +65 °C (DrägerSensor O_2 LS)
- Deviating range of temperature at operation: 0 °C to +55 °C (DrägerSensor O_2)
- Extended range of ambient pressure: 70 kPa to 130 kPa
- Extended range of humidity of the measured gas: 5 % RH to 95 % RH (DrägerSensor O_2 LS)
  10 % RH to 95 % RH (DrägerSensor O_2)

16 Test report

PFG-no. 41300313P NIX of 2020-02-04
EU-type examination certificate PTB 11 ATEX 1005 X Ausgabe 01 of 2017-05-10

This certificate may only be reproduced in its entirety and without any change.

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

17 Special Conditions for Use

- see EU-type examination certificate PTB 11 ATEX 1005 X Ausgabe 01
- If operated with a relay module:
  - The main alarm shall be configured "latching" and "non-acknowledgeable" or "pre-acknowledgeable".
  - The pre-alarm shall only be configured "acknowledgeable" if it is used for operation of an acoustic alarm device.
- For transmitters types ITR 0*1* and ITR 0*2*:
  - see EU-type examination certificate BVS 08 ATEX G 001 X
- For transmitters type XTR 0*0*:
  - see 9th supplement to the EU-type examination certificate BVS 05 ATEX E 143 X
- For transmitters type XTR 0*1*:
  - When exposed to a directed flow of air mixed with gas, the measured values can be increased by up to 32 %.
  - When operated with the remote calibration adapter DQ the measured values can be increased by up to 70 %.
- For transmitters type XTR 0*2*:
  - Operate the transmitter when connected to a control unit that has a latching over-range indication. Do not use internal alarm relays of the transmitter.
  - When exposed to a directed flow of air mixed with gas, the measured values can be increased by up to 32 %.
  - Adjust the transmitter with the sensor in its operational orientation.
  - False alarms can occur during warming up of the sensor.
- For transmitters type ETR 0*0*:
  - The response time t_{20} can exceed the limit of EN 50104 for small concentration changes.

18 Essential Health and Safety Requirements

The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are covered by the standards listed under item 9.

19 Drawings and Documents

Drawings and documents are listed in the confidential test report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, dated 2020-02-04

Managing Director

This certificate may only be reproduced in its entirety and without any change.

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

FLAME DETECTOR

(SENSOR - PLUG - REDUCTION)

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Its distribution is electronically controlled. Once printed shall be considered as "NOT CONTROLLED" copy

International Center for Quality Certification - ICQC LLC
63-19, Skolas street, Jurmala, LV-2016, Latvia
Phone: +371 27168371 E-mail: office@icqc.lv Web: www.icqc.lv
SIA „International Center for Quality Certification - ICQC"
Reģ. Nr.LV40103539825
Skolas iela 63-19, Jūrmala, LV-2016, Latvija

Notified Body 2549

EN ISO/IEC 17065
S1-499

(1) EU-TYPE EXAMINATION CERTIFICATE

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **ICQC 19 ATEX 0424 X** **Issue: 2**

(4) Equipment: **FlameSpec Detector types: FLS-IR3-ASXX, FLS-IR3-H2-ASXX, FLS-UV-IR-ASXX, FLS-UV-IR-F-ASXX**

(5) Applicant: **Fire & Gas Detection Technologies, Inc**
4222 E. La Palma Avenue, Anaheim, CA 92807, USA

(6) Manufacturer: **Fire & Gas Detection Technologies, Inc**
4222 E. La Palma Avenue, Anaheim, CA 92807, USA

(7) This equipment and any acceptable variations, also documents which are specified in the schedule to this certificate.

(8) The certification body ICQC, Notified body No. 2549 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.
The examination and test results are recorded in confidential report No. **424-01/2023/04/ATEX**

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC60079-0:2018, EN 60079-1:2014, EN 60079-7:2015, EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and the construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture and supply of this equipment. These are not covered by the certificate

(12) The marking of the equipment or protective system shall include the following:

II 2 G Ex db IIC T5 Gb or II 2 G Ex db eb IIC T5 Gb and II 2D Ex tb IIIC T95 °C Db -55°C<Ta<75°C

II 2 G Ex db IIC T4 Gb or II 2 G Ex db eb IIC T4 Gb and II 2D Ex tb IIIC T105 °C Db -55°C<Ta<85°C

Head of Certification Body: Sergey Kovalev

International Center for Quality Certification Notified Body 2549 JŪRMALA, LATVIJA

Date of issue: 07 February 2023
Jurmala, Latvia

Certificate without signature is void. This certificate may only be reproduced in its entirety and without any change, schedule included. Extracts or modifications must be authorized by SIA ICQC.

(13) **SCHEDULE**

(14) **to EU-TYPE EXAMINATION CERTIFICATE: ICQC 19 ATEX 0424 X** **Issue: 2**

(15) **Description of Equipment:**

Optical Flame Detectors types: FLS-IR3-ASXX, FLS-IR3-H2-ASXX, FLS-UV-IR-ASXX, FLS-UV-IR-F-ASXX are infrared and UV/IR flame detectors, which provide fast response, high performance and reliable detection of all types of hydrocarbon and hydrogen fires (visible and non-visible).

The last four symbols in the type designation:
A – ATEX certified
S – stainless steel enclosure
X – openings for M25 (1) or 3/4" NPT (2) cable glands
X – symbol for options, not affecting explosion protection.

The flame detector consists of electronic compartment in type of protection flameproof enclosure "d" and terminal compartment in type of protection "d" or increased safety "e"with two openings 3/4" NPT or M25 for cable glands.

The cable entry devices (cable glands) shall be certified with an appropriated type of protection. Unused entries shall be closed with certified blanking elements. Installing and use of cable gland and blanking elements shall be in compliance with EN 60079-14 current edition.

The detector is intended for use as part of a complex system and can be installed indoor or outdoor. The detector has a window heater, which automatically turns on by the ambient temperature below 5^0C.

There are following features available in the flame detectors:
- Alarm Relay
- Fault Relay
- 4-20 mA and HART Output
- RS-485
- Data/Event logger
- Built-in-Test (BIT)

Technical characteristics:

Parameter	Value
Supply voltage	18 ... 32 V DC
Current Consumption	• Standby: 210 mA Maximum: 300 mA all systems in operation (including window heater)
Alarm Relay, SPST, Normally open and normally closed	2A at 30 VDC
Fault Relay, SPST, Normally open	
Degree of protection	IP66 / IP68
Ambient temperature range	-55°C to +75°C or -55°C to +85°C

Routine tests:
Routine tests according to cl. 7.1 of EN 60079-7 shall be conducted for Exe terminal compartment with a test voltage of 500 V
Routine tests according to cl. 16 of EN 60079-1 can be omitted because the enclosure was tested at four times reference pressure.

Certificate without signature is void. This certificate may only be reproduced in its entirety and without any change, schedule included. Extracts or modifications must be authorized by SIA ICQC.

Variation 1 - This variation introduced the following changes:
Manufacturer address update. Product design unchanged.

Variation 2 - This variation introduced the following changes:
Changing the design of the partition wall and cemented joint of the transit PCB between the terminal and electronic compartment.

(16) **Descriptive Documents:**

User Guide Release Number	F120V0020– FlameSpec-IR3 F150V0020– FlameSpec-IR3-H2 F110V0020 – FlameSpec-UV-IR & FlameSpec-UV-IR-F

The drawings are listed in Evaluation report No. 424-01/2023/04/ATEX

Certificate History:

Issue/Date	Evaluation report	Comment
Issue 0 from 21.01.2019	424/2019/07/ATEX	The release of the prime certificate.
Issue 1 from 11.03.2020	424/2019/07/ATEX	The introduction of Variation 1.
Issue 2 from 07.02.2023	424-01/2023/04/ATEX	The introduction of Variation 2.

(17) **Specific conditions of use:**
17.1 The Exd electronic compartment of flame detector has flamepaths which differ from those in IEC 60079-1. Repairs shall be conducted only by Fire & Gas Detection Technologies Inc.

(18) **Essential Health and Safety Requirements:**
Met by compliance with the standards mentioned in clause (9).

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TÜV SÜD ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

(1) # EU-Type Examination Certificate

(2) Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

TPS 19 ATEX 105708 0001 X Rev. 00

(4) Equipment or Protective System: Stopping plugs - Type: BHL M25, BHL 3/4NPT

(5) Manufacturer: Shenzhen Zhongli Hardware Products Co., Ltd.

(6) Address: Building 1, Hehe Science and technology Park, Daxing Community, Fucheng Street, Longhua District, 518109 Shenzhen, PEOPLE'S REPUBLIC OF CHINA

(7) This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) TÜV SÜD Product Service GmbH, Notified Body no. 0123, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports with no. 64.105.19.01091.01

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018	**EN 60079-1:2014**
EN 60079-7:2015+A1:2018	**EN 60079-31:2014**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

Ex II 2GD Ex db IIC Gb Ex eb IIC Gb
Ex tb IIIC Db

Certification Body, München, 13.01.2020

Ing. Kristof De Gersem, MSc.

Certificates without signature shall not be valid. The Certificates may only be circulated in full including its schedule(s). Extracts or alterations are subject to approval by TÜV SÜD Product Service GmbH. In case of dispute, the German text shall prevail. The document is administrated under the following number: EX5A 105708 0001 Rev. 00

Doc. Name: Temp-ExNBG-TPS-EU-Type-Cert-Rev. 04

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A4 / 07.17

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(13) **Schedule**

(14) **EU-Type Examination Certificate no.**

TPS 19 ATEX 105708 0001 X Rev. 00

Product Service

Certificate History

Revision:	Description:	Report no.:	Issue Date:
Rev. 00	First issue of certificate.	64.105.19.01091.01	13.01.2020

(15) Description of equipment:

The stopping plugs comprise a cylindrical body with an external male thread along its length. BHL M25 has M thread and BHL 3/4NPT has NPT thread. The body material of them are SUS316L. BHL M25 with an "O" ring seal but BHL 3/4NPT without.

The stopping plugs are designed for use in explosive atmospheres classified as Gas Zone 1 and Zone 2 and as Dust Zone 21 and Zone 22.

The M and NPT thread forms are in explosion protection type "d", "e" and "t".

See the instruction manual for further details.

Model designation:

BHL M25, BHL 3/4NPT

Model difference:

Type	Metric	NPT
BHL M25	M25	-
BHL 3/4NPT	-	¾ NPT

Technical data:

Service temperature (Ts)	-60°C≤Ts≤180°C
Degree of protection by enclosure	IP64*, IP66**, IP68**

* IP64 is tested according to EN/IEC 60079-0.
** IPX6 and IPX8 are tested according to EN/IEC 60529; IPX8: 1m, 24h.

Warning label:

N/A

Installation instruction:

See installation instructions provided by the manufacturer and part of this certification.

Certificates without signature shall not be valid. The Certificates may only be circulated in full including its schedule(s). Extracts or alterations are subject to approval by TÜV SÜD Product Service GmbH. In case of dispute, the German text shall prevail. The document is administrated under the following number: EX5A 105708 0001 Rev. 00

Doc. Name: Temp-ExNBG-TPS-EU-Type-Cert-Rev. 04

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TÜV SÜD ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

(13) **Schedule**

(14) **EU-Type Examination Certificate no.**

TPS 19 ATEX 105708 0001 X Rev. 00

Product Service

See also (17) Special conditions for safe use.

(16) Test report(s): 64.105.19.01091.01

Routine tests:

N/A

Document List:

File no.:	Description:	Pages:	Rev:	Date:
20191006M-01	BHL M25 drawing	1	A/0	2019-11-25
20191006F-01	BHL 3/4NPT drawing	1	A/0	2019-11-25
BC0601A	BHL M25 Instruction manual	1	00	2019-11-25
BC0601B	BHL 3/4NPT Instruction manual	1	00	2019-11-25

A copy of the full documentation is kept confidentially at TÜV SÜD.

(17) Special conditions for safe use:

1. The equipment shall be installed according to the instruction manual provided by manufacturer.
2. Service temperature: -60°C to 180°C.
3. To maintain the IP64 requirement according to EN/IEC 60079-0, BHL M25 and BHL 3/4NPT shall be made wrench tight. BHL M25 requires at least 5 threads engaged and shall be installed perpendicular to the mounting face and with a groove for sealing ring, ensuring that the sealing ring is evenly compressed against the mounting face. BHL 3/4NPT shall be made up wrench-tight and at least 3 ½ threads engaged.
4. To maintain the flameproof properties, BHL M25 shall be made wrench tight and requires at least 5 threads engaged. BHL 3/4NPT shall be made wrench tight and the threads length engaged shall be not less as the "L2" dimension according ANSI/ASME B1.20.1. When this cannot be realised at the final installation, the stopping plugs cannot be used for "Ex db" applications.

(18) Essential health and safety requirements:

Assured by compliance with standards set out in (9).

Certificates without signature shall not be valid. The Certificates may only be circulated in full including its schedule(s). Extracts or alterations are subject to approval by TÜV SÜD Product Service GmbH. In case of dispute, the German text shall prevail. The document is administrated under the following number: EX5A 105708 0001 Rev. 00

Doc. Name: Temp-ExNBG-TPS-EU-Type-Cert-Rev. 04

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ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD

RIBCO
EXPLOSION PROOF EQUIPMENT
Via dei Mille, 12 - 20061 - ITALY Carugate (MI)
www.ribco.it - info@ribco.it

ISO 9001 : 2008
Cert. N° 9105-RIBC

Reg. N° IT-78971

ATEX NOTIFIED
CESI 11 ATEX 044Q

DICHIARAZIONE DI CONFORMITA' UE

ATEX_DCE-2024-00453

N°	**453**
Data	**18/07/2024**
Pagina	**1 / 1**

Il costruttore

RIBCO s.r.l.
Via dei Mille,12 - 20061 - Carugate (MI) - ITALY

Dichiara sotto la propria responsabilità che i prodotti

Codice Articolo	Descrizione	Quantità
RE2520S	RIDUZIONE IN ACCIAIO INOX AISI 316L DA MASCHIO M25x1.5 A FEMMINA M20x1.5 - ORING IN EPDM (-40°C ÷ +100°C) INCLUSA - IECEx INE 14.0038X INERIS 14 ATEX 0029X CE 0722 Ex I M2 Ex II 2GD Ex d I Mb Ex d IIC Gb Ex e IIC Gb Ex tb IIIC	23,00
REB1N20MS	RIDUZIONE IN ACCIAIO INOX AISI 316L DA FEMMINA 1/2" NPT A MASCHIO M20x1.5 - ORING IN EPDM (-40°C ÷ +100°C) INCLUSA - IECEx INE 14.0038X INERIS 14 ATEX 0029X CE 0722 Ex I M2 Ex II 2GD Ex d I Mb Ex d IIC Gb Ex e IIC Gb Ex tb IIIC	10,00

Consegnati alla società

BIESSE SISTEMI Srl
VIA FRATELLI LUMIERE, 39
48124 FORNACE ZARATTINI RAVENNA (RA) (IT)

con il seguente documento
DOCUMENTO DI TRASPORTO N° 538 del 18/07/2024

sono conformi alla direttiva comunitaria **ATEX 2014/34/EU**
La conformità è dimostrata dalla osservanza delle seguenti norme europee:

EN 60079-0 : 2012 / A11 : 2013
EN 60079-1 : 2007
EN 60079-7 : 2007
EN 60079-31 : 2009

La conformità non è influenzata dalle modifiche introdotte dalle seguenti norme armonizzate:

EN IEC 60079-0 : 2018
EN 60079-1 : 2014
EN IEC 60079-7 : 2015 / A1 : 2018
EN 60079-31 : 2014

Certificato di esame CE di tipo ATEX
INERIS 14ATEX0029X notified body n°0080

Organismo Notificato incaricato della sorveglianza
CESI MILANO – n° 0722

CARUGATE (MI), 18/07/2024

Ing. Roberto Borroni
RIBCO s.r.l.

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres Directive 94/9/EC**

(1) # EC-TYPE EXAMINATION CERTIFICATE

(3) Number of the EC type examination certificate: **INERIS 14ATEX0029X**

(4) Equipment or protective system:

FITTING UNITS TYPE RE**** or RE******* or PL**** or NP*** or EM*** or ELF***

(5) Manufacturer: **RIBCO**

(6) Address: Via dei Mille, 12
20061 Carugate (MI)-ITALY

(7) This equipment or protective system and any other acceptable alternative of this one are described in the annex of this certificate and the descriptive documents quoted in this annex.

(8) INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/EC of the 23rd March 1994, and accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation available on the website www.cofrac.fr) certifies that this equipment or protective system fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, described in annex II of the Directive.

The examinations and the tests are consigned in report No 028198/14.

(9) The respect of the Essential Health and Safety Requirements is ensured by:

- conformity with:

EN 60079-0	:	2012/A11 :2013
EN 60079-1	:	2007
EN 60079-7	:	2007
EN 60079-31	:	2009

- specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents.

Parc Technologique Alata BP 2 F-60550 Verneuil-en-Halatte
tél + 33(0)3 44 55 66 77 **fax** + 33(0)3 44 55 66 99 **internet** www.ineris.fr

Institut national de l'environnement industriel et des risques
Etablissement public à caractère industriel et commercial - RCS Senlis B 381 984 921 - Siret 381 984 921 00019 - APE 7120B

(10) Sign X, when it is placed following the Number of the EC type examination certificate, indicates that this equipment and protective system is subjected to the special conditions for safe use, mentioned in the annex of this certificate.

(11) This EC type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system, these are not covered by this certificate.

(12) The marking of the equipment or the protective system will have to contain:

Ex I M2 Ex II 2 GD

Verneuil-en-Halatte, 2014.06.26

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

The Chief Executive Officer of INERIS
By delegation
T. HOUEIX
Ex Certification Officer

(13) # ANNEX

(14) EC TYPE EXAMINATION CERTIFICATE N°INERIS 14ATEX0029X

(15) DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM

This series of fitting units is composed by adapters, plugs, nipples and 90°bends can be made in EN AW-6060, CW614N (OT58), AISI 316L or ASTM A105.

It gets the degree of protection IP66 according to the EN 60529 standard.

PARAMETERS RELATING TO THE SAFETY

Size of threaded joints:

Taper threading	:	NPT	:	3/8" NPT up to 3" NPT.
Cylindrical threading	:	ISO-262 and ISO965-1/2/3	:	M16 x 1.5 mm up to M90 x 1.5 mm.

Operating temperature:

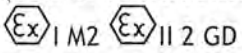
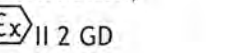
-40°C to +100°C with EPDM O-ring;

-60°C to +180°C with silicone O-ring.

MARKING

Marking has to be readable and indelible; it has to include the following indications:

a) **Marking for units without aluminum**

RIBCO
20061 Carugate (MI)-ITALY
RE****** or RE******* or PL**** or NP*** or EM*** or ELF***
INERIS 14ATEX0029X
(Year of construction)
 I M2  II 2 GD
Ex d I Mb
Ex d IIC Gb
Ex e IIC Gb
Ex tb IIIC Db IP66

On the small equipments, the marking can be reduced:

RIBCO-I
RE****** or RE******* or PL**** or NP*** or EM*** or ELF***
(Year of construction)
INERIS 14ATEX0029X
Ex I M2 Ex II 2 GD
Ex d/e/tb
IP66

Marking may be carried out in the language of the country of use.

The protective system or equipment has also to carry the marking normally stipulated by its construction standards.

b) Marking for units in aluminum

RIBCO
20061 Carugate (MI)-ITALY
RE****** or RE******* or PL**** or NP*** or EM*** or ELF***
INERIS 14ATEX0029X
(Year of construction)
Ex II 2 GD
Ex d IIC Gb
Ex e IIC Gb
Ex tb IIIC Db IP66

On the small equipments, the marking can be reduced:

RIBCO-I
RE****** or RE******* or PL**** or NP*** or EM*** or ELF***
(Year of construction)
INERIS 14ATEX0029X
Ex II 2 GD
Ex d/e/tb
IP66

Marking may be carried out in the language of the country of use.

The protective system or equipment has also to carry the marking normally stipulated by its construction standards.

ROUTINE EXAMINATIONS AND TESTS

None.

(16) DESCRIPTIVE DOCUMENTS

The descriptive document quoted hereafter constitutes the technical documentation of the equipment, subject of this certificate.

- Certification File DC-FIT-00 Rev.0 (12 items) signed on 2014.03.10

(17) SPECIAL CONDITIONS FOR SAFE USE

Operating temperature of the fitting units:

-40°C to +100°C with EPDM O-ring;

-60°C to +180°C with silicone O-ring.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is ensured by:

- Conformity to the standards quoted in clause (9).
- All provisions adopted by the manufacturer and defined in the descriptive documents.

MANUAL FIRE ALARM

ABANDON ACTIVATION

MAN OVER BOARD ACTIVATION

EMERGENCY SHUTDOWN ACTIVATION

EMERGENCY SHUTDOWN DEPRESSURIZATION ACTIVATION

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1 # EU - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
Directive 2014/34/EU

3 EU - Type Examination Certificate Number: **Baseefa03ATEX0075X – Issue 21**

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **SM87 Alarm Stations**

5 Manufacturer: **Eaton MEDC Limited**

6 Address: **Unit B, Sutton Parkway, Oddicroft Lane, Sutton-in-Ashfield, NG17 5FB**
United Kingdom

7 This re-issued certificate extends EC Type Examination Certificate No. **Baseefa03ATEX0075** to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **See certificate history.**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

Ⓔx II 2 GD Ex db IIC T* Gb Tamb -55°C to +°C Ex tb IIIC T**°C Db IP66/67 Tamb -55°C to +**°C**

SGS Fimko Oy Customer Reference No. **0676** Project File No. **22/0235**

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Mikko Välimäki
SGS Fimko Oy

13 # Schedule

14 ## Certificate Number Baseefa03ATEX0075X – Issue 21

15 Description of Product

The Range of SM87 Alarm Stations comprises a cylindrical enclosure a square base with an irregular shaped cover secured by 4 off screws of grade A4-70 or A4-80 stainless steel. The base and cover may be manufactured from either aluminium or stainless steel.

The cover is fitted with an actuator mechanism which may be operated by either a push button or break glass function dependant on the external actuator assembly.

The units may be supplied by the manufacturer in an assembly of up to five interconnected enclosures using cable bushings to EPS13ATEX1619U.

The range of Type SM87 Alarm Stations comprises:-

Type BGLD – A Breakglass unit with latching mechanism The interior of the enclosure comprises up to two micro-switches, mounted on the inside of the cover, and up to twelve rail mounted terminals fitted to the enclosure base, and rated up to 24V, 2A.

Type LBGLD - A Breakglass unit with protective lift flap and latching mechanism. The interior and rating as per the Type BGLD.

Type PBLD – A Push Button unit with latching mechanism. The interior and rating as per the Type BGLD.

Type PBMD – A Push button unit with momentary mechanism. The interior and rating as per the Type BGLD.

Type SM87 EOL Unit A – The interior comprises up to two micro-switches, mounted on the inside of the cover, and up to twelve rail mounted terminals fitted to the enclosure base with the addition of an end of line module rated 24V 0.5A.

Type SM87 Addressable Unit B –The interior comprises up to two micro-switches, mounted on the inside of the cover and a Servoteknikk addressable callpoint PCB, rated up to 24V 0.5A.

Type SM87 Addressable Unit G –The interior comprises up to two micro-switches, mounted on the inside of the cover and a Tyco addressable callpoint PCB, rated up to 24V 0.5A.

Type SM87 Addressable Unit F – The interior comprises up to two micro-switches, mounted on the inside of the cover and an Autronica addressable callpoint PCB, rated up to 24V 0.5A.

Type SM87 XP950 Module Unit – The interior comprises up to two micro-switches, mounted on the inside of the cover and an Apollo PCB, rated up to 24V 1.0A.

Type SM87 Addressable Unit H - The interior comprises a Hochiki addressable callpoint PCB and up to 7 terminals rated at up to 24V 0.2A.

Type SM87 Addressable Unit J - The interior comprises a Ziton addressable module, up to 5 terminals and 2 x 2.5W resistors rated at up to 24V 0.1A, 7W.

Type SM87PBD MCR-CUBE EOL Unit – an SM87 Alarm Station with switches mounted on the underside of the cover and an end of line (EOL) module and terminals mounted in the base, rated up to 24V, 0.5A.

Type SM87 Omron Relay Unit A – Type SM87 Alarm Station comprising an alternative interior which includes a relay callpoint, Omron Type SPDT G2R and up to 6 Weidmuller AKZ 1.5 terminals, rated up to 24V, 2A.

Type SM87 Addressable Unit C - SM87 Alarm Station with switches mounted on the underside of the cover and an alternative addressable printed circuit board (PCB) mounted in the base, rated up to 28V, 0.5A

Type SM87 Addressable Module G – with switches mounted on the underside of the cover and an alternative addressable Tyco module mounted in the base, rated up to 24V, 0.02A.

Type SM87 Addressable Module I – with switches mounted on the underside of the cover and an alternative addressable Apollo module mounted in the base, rated up to 24V, 0.02A.

Type SM87 Addressable Module K – with switches mounted on the underside of the cover and an alternative addressable Tyco module mounted on the base, rated up to 24V, 0.1A.

The alarm stations are coded:-

Ex db IIC T6 Gb Tamb -55°C to +55°C

Ex tb IIIC T85°C Db IP66/67 Ta -55°C to +55°C

Or

Ex db IIC T5 Gb Tamb -55°C to +70°C

Ex tb IIIC T100°C Db IP66/67 Ta -55°C to +70°C

Cable entry holes are provided as specified on the certified drawings for the accommodation of flameproof cable entry devices, with or without the interposition of a flameproof thread adapter. Unused entries are to be fitted with suitable certified flameproof stopping plugs.

The cable entry devices, thread adapters and stopping plugs shall be suitable for the equipment, the cable and the conditions of use and shall be certified as Equipment (not a Component) under an EC Type Examination Certificate to Directive 2014/34/EU.

When used in an explosive dust atmosphere the cable entry devices shall maintain the ingress protection of the enclosure.

16 Report Number

See certificate history.

17 Specific Conditions of Use

1. Potential electrostatic charging hazard – see instructions.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.2.7	LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
562-774	1 - 2	F	08-08-23	ATEX Certification Detail SM87BGLD, SM87PBLD, SM87LBGLD & PBMD
562-778	1	B	08-08-23	SM87BG ATEX Certification Label
562-779	1	B	08-08-23	SM87PB ATEX Certification Label

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
562-775	1 & 2	E	12/12/19	SM87PBD SM87BGD ATEX OPTIONAL MODULE DETAILS
562-851		A	25.11.10	General Arrangement, SM87PBD MCR-CUBE EOL UNIT

20 Certificate History

Certificate No.	Date	Comments
Baseefa03ATEX0075	09 May 2006	The release of the prime certificate. The associated test and assessment against the requirements of EN 50014:1997 + Amendments 1 & 2, EN 50018:2000 + Amendment 1, EN 50281-1-1:1998 is documented in Test Report No. 02(C)0226.
Baseefa03ATEX0075/1	27 January 2004	Alternative arrangement comprising an SM87 Alarm Station with switches mounted on the underside of the cover and an addressable printed circuit board (PCB) mounted in the base. In this form the unit is designated a **SM87 ADDRESSABLE UNIT B** and is rated up to 24V, 0.5A with a revised Temperature Classification of T85°C (Tamb = -55°C to +55°C) or T100°C (Tamb = -55°C to +70°C). No report.
Baseefa03ATEX0075/2	27 January 2004	Alternative arrangement comprising an SM87 Alarm Station with switches mounted on the underside of the cover and an alternative addressable printed circuit board (PCB) mounted in the base. In this form the unit is designated a **SM87 ADDRESSABLE UNIT F** and is rated up to 24V, 0.5A with a revised Temperature Classification of T85°C (Tamb = -55°C to +55°C) or T100°C (Tamb = -55°C to +70°C). No report.
Baseefa03ATEX0075/3	29 January 2004	Alternative arrangement comprising an SM87 Alarm Station with switches mounted on the underside of the cover and an alternative addressable printed circuit board (PCB) mounted in the base. In this form the unit is designated a **SM87 ADDRESSABLE UNIT G** and is rated up to 24V, 0.5A with a revised Temperature Classification of T85°C (Tamb = -55°C to +55°C) or T100°C (Tamb = -55°C to +70°C). No report.

Certificate No.	Date	Comments
Baseefa03ATEX0075/4	25 August 2005	To note change in type reference of the addressable callpoint. No report.
Baseefa03ATEX0075/5	14 October 2005	Alternative arrangement comprising an SM87 Alarm Station with switches mounted on the underside of the cover and an alternative printed circuit board mounted in the base. In this form the unit is designated a **SM87 XP950 MODULE UNIT** and is rated up to 24V, 1A with a revised Temperature Classification of T85°C (Tamb = -55°C to +55°C). No report.
Baseefa03ATEX0075/6	05 December 2005	Alternative rating of 48V, 1A for the SM87 Alarm Stations, together with a change to the optional internal resistors. No report.
Baseefa03ATEX0075/7	14 September 2006	Alternative arrangement comprising an SM87 Alarm Station with switches mounted on the underside of the cover and up to 12 rail mounted terminals and an end of line (EOL) device mounted in the base. In this form the unit is designated a **SM87PBD EOL UNIT A** and is rated up to 24V, 0.5A with a Temperature Classification of T85°C (Tamb = -55°C to +55°C) or T100°C (Tamb = -55°C to +70°C). No report.
Baseefa03ATEX0075/8	10 October 2007	Optional addition of an indicator LED and window assembly to the cover of the push-button and break-glass units. Baseefa certification report 04(C)0562 refers.
Baseefa03ATEX0075/9	07 July 2008	To permit an optional transient voltage suppressor rated up to 5W. No report.
Baseefa03ATEX0075/10	07 January 2009	Alternative arrangement comprising an SM87 Alarm Station with an addressable callpoint mounted on the underside of the cover and an addressable printed circuit board (PCB) module and terminals mounted in the base. In this form the unit is designated a **SM87 ADDRESSABLE UNIT H** and is rated up to 24V, 0.02A with a Temperature Classification of T85°C (Tamb = -55°C to +55°C) or T100°C (Tamb = -55°C to +70°C). No report.
Baseefa03ATEX0075/11	17 April 2009	Alternative arrangement comprising an SM87 Alarm Station with switches mounted on the underside of the cover and an addressable printed circuit board (PCB) module and terminals mounted in the base. In this form the unit is designated a **SM87 ADDRESSABLE UNIT J** and is rated up to 24V, 0.1A with a Temperature Classification of T85°C (Tamb = -55°C to +55°C) or T100°C (Tamb = -55°C to +70°C). No report.
Baseefa03ATEX0075/12	27 September 2010	To amalgamate the current design and previous variations into one revised set of drawings. No technical changes were carried out. SGS Baseefa certification report GB/BAS/ExTR09.0084/00 refers.

Certificate No.	Date	Comments
Baseefa03ATEX0075/13	23 December 2010	Alternative arrangement comprising an SM87 Alarm Station with switches mounted on the underside of the cover and an end of line (EOL) module and terminals mounted in the base. In this form the unit is designated a **SM87PBD MCR-CUBE EOL UNIT** and is rated up to 24V, 0.5A. No report.
Baseefa03ATEX0075/14	10 May 2012	Variation to the Type SM87 Alarm Station comprising an alternative interior which includes a relay callpoint, Omron Type SPDT G2R and up to 6 Weidmuller AKZ 1.5 terminals. In this form the unit is designated a **Type SM87 Omron Relay Unit A** and is rated up to 24V, 2A. No report.
Baseefa03ATEX0075/15	4 October 2013	To increase the number of resistors rated at up to 470Ω and 0.6W installed in the SM87 from 4 to a maximum of 6 without any increase in power dissipation. SGS Baseefa report GB/BAS/ExTR13.0225/00 refers.
Baseefa03ATEX0075/16	15 October 2013	Alternative arrangement comprising an SM87 Alarm Station with switches mounted on the underside of the cover and an alternative addressable printed circuit board (PCB) mounted in the base. In this form the unit is designated a **SM87 Addressable Unit C** and is rated up to 28V, 0.5A with a Temperature Classification of T85°C (Tamb -55°C to +55°C) or T100°C (Tamb -55°C to +70°C). SGS Baseefa certification report GB/BAS/ExTR13.0232/00 refers.
Baseefa03ATEX0075/17	20 January 2014	Increase in the maximum number of rail mounted terminals to thirteen. SGS Baseefa certification report GB/BAS/ExTR14.0022/00 refers.
Baseefa03ATEX0075/18	22 January 2015	Alternative arrangement comprising an SM87 Alarm Station with switches mounted on the underside of the cover and an alternative addressable Tyco module mounted in the base. In this form the unit is designated a **SM87 Addressable Module G** and is rated up to 24V, 0.02A with a Temperature Classification of T85°C (Tamb -55°C to +55°C) or T100°C (Tamb -55°C to +70°C). Alternative arrangement comprising an SM87 Alarm Station with switches mounted on the underside of the cover and an alternative addressable Apollo module mounted in the base. In this form the unit is designated a **SM87 Addressable Module I** and is rated up to 24V, 0.02A with a Temperature Classification of T85°C (Tamb -55°C to +55°C) or T100°C (Tamb -55°C to +70°C). No report.
Baseefa03ATEX0075/19	23 June 2015	Addition of alternative terminal Type Weidmuller AKZ1.5 to the existing list of terminals; Weidmuller: AKZ4 — Max Number 12 Weidmuller: AKZ1.5 — Max Number 13 Weidmuller: AKZ2.5 — Max Number 13 Phoenix: MBK up to 2.5mm — Max Number 13 SGS Baseefa certification report GB/BAS/ExTR15.0189/00 refers.

Certificate No.	Date	Comments
Baseefa03ATEX0075/20	31 January 2020	To introduce an alternative arrangement comprising an SM87 Alarm Station with switches mounted on the underside of the cover and an alternative addressable Tyco module mounted on the base. In this form the unit is designated a **SM87 Addressable Module K** and is rated up to 24V, 0.1A with a temperature classification of T85°C (Tamb -55°C to +55°C) or T100°C (Tamb -55°C to +70°C). SGS Baseefa certification report 20(C)0064 refers.
Baseefa03ATEX0075X Issue 21	14 November 2023	To assess the SM87 Alarm Stations against EN IEC 60079-0:2018, EN 60079-1:2014 and EN 60079-31:2014. SGS Baseefa certification report GB/BAS/ExTR22.0113/00 refers.
For drawings applicable to each issue, see original of that issue.		

FLAMMABLE GAS ALARM

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Powering Business Worldwide

EU-Declaration of conformity

MEDC22DOC104X

We

Eaton MEDC Limited
Unit B, Sutton Parkway, Oddicroft Lane,
Sutton-In-Ashfield, NG17 5FB

hereby declare in our sole responsibility, that the product

Beacon

Ex II 2 GD	XB4 Xenon Beacon	Baseefa02ATEX0224X	Ex II 2 G	FL12 Filament Beacon	BAS99ATEX2196X
Ex II 2 GD	FB4 Filament Beacon	Baseefa02ATEX0224X	Ex II 2 G	FB12 Filament Beacon	BAS99ATEX2196X
Ex II 2 GD	FB4E Filament Beacon	Baseefa02ATEX0224X	Ex II 2 G	TH12 Rotating Beacon	BAS99ATEX2196X
Ex II 1 G	XB8 Xenon Beacon	BAS02ATEX1258X	Ex II 2 GD	XB15 Xenon Beacon	Baseefa04ATEX0009X
Ex II 2 G	XB9 Xenon Beacon	BAS00ATEX2031X	Ex II 2 GD	FB15 Filament Beacon	Baseefa04ATEX0009X
Ex II 2 G	XB10 Xenon Beacon	BAS00ATEX2204X	Ex II 2 GD	LD15 Led Beacon	Baseefa04ATEX0009X
Ex II 2 G	XB10E Xenon Beacon	BAS00ATEX2226X	Ex II 2 GD	SM87XBT Xenon Beacon	Baseefa03ATEX0222X
Ex II 2 GD	XB11 Xenon Beacon	BAS99ATEX2195X	Ex II 2 GD	SM87LU1 Fluorescent Beacon	Baseefa03ATEX0222X
Ex II 2 GD	FL11 Filament Beacon	BAS99ATEX2195X	Ex II 2 GD	SM87LU3 Filament Beacon	Baseefa03ATEX0222X
Ex II 2 GD	FB11 Filament Beacon	BAS99ATEX2195X	Ex II 2 GD	SM87HXB Xenon Beacon	Baseefa03ATEX0222X
Ex II 2 G	XB12 Xenon Beacon	BAS99ATEX2196X	Ex II 2 GD	SM87LED Beacon	Baseefa03ATEX0222X

complies with the following EU directives, their corresponding harmonised standards, and other normative documents.

Terms of the directive		*Title and / or No. and date of issue of the standard*
2014/30/EU:	*EMC Directive - relating to Electromagnetic Compatibility*	EN 61000-6-2:2005 EN 61000-6-4:2007+A1:2011
2014/34/EU:	*ATEX Directive - relating to equipment and protective systems intended for use in potentially explosive atmospheres.*	EN IEC 60079-0:2018† EN 60079-1:2014† EN IEC 60079-7: 2015 +A1: 2018 EN 60079-11: 2012† EN 60079-28: 2015 EN 60079-31: 2014†

† Where products were initially assessed for compliance with the Essential Health and Safety Requirements of the Directive using earlier harmonized standards, a subsequent review has determined that compliance is unaffected by the current harmonized standard(s) listed above.

2015/863/EU:	*RoHS Directive - relating to hazardous substances in electrical and electronic equipment*	EN IEC 63000:2018

Name — *Stewart Parfitt*
Designation — *Engineering Director*
Place and date — *Luton, 18th November 2024*

For the safe use of this equipment, the information given in the accompanying operating instructions must be followed.

Notified Bodies responsible for issuing Cat 1 or 2 ATEX Certificates:
0598 SGS Fimko Oy, Takomotie 8, FI-00380 Helsinki, Finland
Notified Body responsible for ATEX QA regime:
0598 SGS Fimko Oy, Takomotie 8, FI-00380 Helsinki, Finland

Registered in England No. 1202172
VAT Number GB127566651

1 # SUPPLEMENTRY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa03ATEX0222/6**
4	Equipment or Protective System:	**SM87 Beacons**
5	Manufacturer:	**Cooper MEDC Limited**
6	Address:	**Colliery Road, Pinxton, Nottingham NG16 6JF**

7 This supplementary certificate extends EC – Type Examination Certificate No. **Baseefa03ATEX0222** to apply to equipment or a protective system designed and constructed in accordance with the specification set out in the Schedule of this certificate which incorporates and supersedes all previous issues of the said certificate.

8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR/09/0082/00**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN60079-0: 2009 **EN60079-1: 2007** **IEC60079-31: 2008**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This Supplementary EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

Ⓔx II 2 GD Ex d IIC T* (Ta -55°C to + **°C) Gb Ex tb IIIC T°C (Ta -55°C to + **°C) Db IP66/IP67**

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0676**

Project File No. **07/1065**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa

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Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

13 **Schedule**

14 **Certificate Number Baseefa03ATEX222/6**

15 Description of Equipment or Protective System

The Type SM87 Beacons comprise a cylindrical enclosure on a square base and a cover provided with a glass dome to component enclosure Baseefa09ATEX0018U. The base and cover may be manufactured from either aluminium or stainless steel and the cover is secured by screws of grade A4-80 stainless steel. The base is provided with up to four threaded cable entries. The units may be joined together by the manufacturer's supplied coupling up to a maximum of 5 units.

The enclosure contains various internal arrangements to form the following:-

A filament lamp and terminals to form a **Type SM87 LU3** rated up to 240Vac, 10W, 25W or 40W.

A fluorescent lamp, a PCB and terminals to form a **Type SM87 LU1** rated up to 254Vac or 48Vdc, 5W or 10W.

A Xenon Lamp, a PCB and terminals to form a **Type SM87 HXB** rated up to 254Vac or 48Vdc, 11W.

A Xenon electronics unit PCB and terminals to form a **Type SM87 XBT/A** rated up to 254Vac or 48Vdc 11W. This unit is to drive the XTB/B unit described below.

A Xenon Lamp PCB and terminals to form a **Type SM87 XBT/B** powered from the unit above.

Four PCBs containing clusters of LEDs, a driver PCB and terminals to form a **Type SM87 LED** rated up to 48Vdc 4W (white) or 5.6W (blue).

The temperature classification and ambient temperature range for the beacons fitted with the specified lamps are indicated below.

Beacon	Watts	Marked Temperature	Ambient temperature range	Cable Temperature Rise (K)
SM87 LU3	10	T100°C	-55°C to + 70°C	30
		T85°C	-55°C to + 55°C	
		T70°C	-55°C to + 40°C	
	25	T130°C	-55°C to + 55°C	65
		T115°C	-55°C to + 40°C	
	40	T155°C	-55°C to + 55°C	110
		T140°C	-55°C to + 40°C	
SM87 LU1	5	T85°C	-55°C to + 55°C	50
		T70°C	-55°C to + 40°C	
	10	T85°C	-55°C to + 55°C	50
		T70°C	-55°C to + 40°C	
SM87 HXB	11	T95°C	-55°C to + 70°C	60
		T80°C	-55°C to + 55°C	
		T65°C	-55°C to + 40°C	
SM87 XBT/A	11	T70°C	-55°C to + 55°C	40
		T55°C	-55°C to + 40°C	

Beacon	Watts	Marked Temperature	Ambient temperature range	Cable Temperature Rise (K)
SM87 XBT/B	-	T110°C	-55°C to + 85°C	20
		T95°C	-55°C to + 70°C	
		T80°C	-55°C to + 55°C	
		T65°C	-55°C to + 40°C	
SM87 LED White	4	T70°C	-55°C to + 55°C	20
		T55°C	-55°C to + 40°C	
SM87 LED Blue	5.6	T70°C	-55°C to + 55°C	20
		T55°C	-55°C to + 40°C	

16 Report Number

Baseefa Certification Report GB/BAS/ExTR09.0082/00

17 Special Conditions for Safe Use

None.

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

The drawings indicated below amalgamate the current design and previous variations, and supersede all previous issues.

Number	Sheet	Issue	Date	Description
562-749	1	A	11.08.10	XHB, XBT, LU1, LU3, LED Assemblies
562-749	2	A	11.08.10	XHB, XBT, LU1, LU3, LED Assemblies
562-749	3	A	11.08.10	XHB, XBT, LU1, LU3, LED Assemblies

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa03ATEX0222/7**
4	Equipment or Protective System:	**SM87 Beacons**
5	Manufacturer:	**Cooper MEDC Limited**
6	Address:	**Unit B, Sutton Parkway, Oddicroft Lane, Sutton-in-Ashfield, NG17 5FB**

7 This supplementary certificate extends EC – Type Examination Certificate No. **Baseefa03ATEX0222** to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

Baseefa Customer Reference No. **0676**

Project File No. **15/0438**

This document is issued by the Company subject to its General Conditions for Certification Services accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and the Supplementary Terms and Conditions accessible at http://www.baseefa.com/terms-and-conditions.asp. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. It does not necessarily indicate that the equipment may be used in particular industries or circumstances. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, schedule included, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

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Registered in England No. 4305578.
Registered address: Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN

pp MPowney MPowney
R S SINCLAIR
GENERAL MANAGER
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa03ATEX0222/7**

15 **Description of the variation to the Equipment or Protective System**

Variation 7.1

To permit an alternative type MBK 2.5 terminal, and minor drawings amendments.

Variation 7.2

To permit an increase in power of the blue and white LED versions to 7.2W.

The complete listing is indicated below.

Beacon	Watts	Marked Temperature	Ambient temperature range	Cable Temperature Rise (K)
SM87 LU3	10	T100°C	-55°C to + 70°C	30
		T85°C	-55°C to + 55°C	
		T70°C	-55°C to + 40°C	
	25	T130°C	-55°C to + 55°C	65
		T115°C	-55°C to + 40°C	
	40	T155°C	-55°C to + 55°C	110
		T140°C	-55°C to + 40°C	
SM87 LU1	5	T85°C	-55°C to + 55°C	50
		T70°C	-55°C to + 40°C	
	10	T85°C	-55°C to + 55°C	50
		T70°C	-55°C to + 40°C	
SM87 HXB	11	T95°C	-55°C to + 70°C	60
		T80°C	-55°C to + 55°C	
		T65°C	-55°C to + 40°C	
SM87 XBT/A	11	T70°C	-55°C to + 55°C	40
		T55°C	-55°C to + 40°C	
SM87 XBT/B	-	T110°C	-55°C to + 85°C	20
		T95°C	-55°C to + 70°C	
		T80°C	-55°C to + 55°C	
		T65°C	-55°C to + 40°C	
SM87 LED Red/green/amber	4	T70°C	-55°C to + 55°C	20
		T55°C	-55°C to + 40°C	
SM87 LED White/Blue	7.2	T70°C	-55°C to + 55°C	20
		T55°C	-55°C to + 40°C	

16 **Report Number**

GB/BAS/ExTR15.0176/00.

17 **Specific Conditions of Use**

None.

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Sheet	Issue	Date	Description
562-749	1-3 inc.	B	03.06.15	General Assembly SM87 – ATEX Certification

1 # EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	EC - Type Examination Certificate Number:	**Baseefa03ATEX0222**
4	Equipment or Protective System:	**SM87 BEACONS**
5	Manufacturer:	**MEDC LIMITED**
6	Address:	**Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa (2001) Ltd. Notified body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. **03(C)0265**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + Amendments 1 & 2 **EN 50018: 2000 + Amendment 1** **EN 50281-1-1: 1998**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

⟨Ex⟩ II 2 GD EEx d IIC T* (see schedule)

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. **0676**

Project File No. **03/0265**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

Baseefa (2001) Ltd.
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e-mail info@baseefa2001.biz web site www.baseefa2001.biz
Registered in England No. 4305578 at 13 Dovedale Crescent, Buxton, Derbyshire, SK17 9BJ

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.

13 **Schedule**

14 **Certificate Number Baseefa03ATEX0222**

15 Description of Equipment or Protective System

The Type SM87 Beacons each comprise a cylindrical enclosure on a square base with a domed glass cover secured by 4 off M6 x 12mm long socket head cap screws of grade A4-80 stainless steel. The base and cover ring may be manufactured from either aluminium or stainless steel.

The interior of the units may contain one of the following lamp types and the associated control gear, each with different designations and thermal characteristics as shown below :-

TYPE SM87 ---	Lamp Type	Voltage (V)	Watts (W)	Temperature Classification T* (T_{amb}= -55°C to + °C)			
				+40°C	+55°C	+70°C	+85°C
LU3	Filament	240 ac	48	T135°C	T200°C	N/A	
LU1	Fluorescent	254 ac	10	T100°C	T135°C	N/A	
		240 ac		T85°C	T100°C		
		110/120 ac	5				
		12, 24, 48 dc			T85°C		
HXB	Xenon	110, 240, 254 ac	11	T85°C	T135°C	T135°C	N/A
		12, 24, 30, 48 dc					
XBT/A	Xenon (Electronics unit)	110, 240, 254 ac	11*	T85°C	T135°C	N/A	
		12, 24, 30, 48 dc					
XBT/B	Xenon (Lamp unit)	N/A		N/A			T135°C
LED	LED	24, 48 dc	4	T85°C	T135°C	N/A	
	LED (Blue)		5.6				

* Note XBT units A & B are intended to be used together in pairs and are rated accordingly

The enclosure is provided with internal and external earth connection facilities.

Up to 4 cable entry holes threaded M20 to M25 (or NPT & Pg equivalents) are provided for the accommodation of suitable BASEEFA certified flameproof IIC cable entry devices, with or without the interposition of a suitable BASEEFA certified flameproof IIC thread adapter. Unused entries are to be fitted with suitable BASEEFA certified flameproof IIC stopping plugs.

Suitable flameproof IIC cable entry devices, thread adapters and stopping plugs certified as Equipment (not a Component) under an EC Type Examination Certificate to Directive 94/9/EC may also be used in the manner specified above.

If the unit is intended for use in a dust atmosphere these devices must be sealed in accordance with the relevant codes of practice to ensure a dust tight seal.

In addition, these units may be supplied by the manufacturer in an assembly of up to five interconnected enclosures.

16 Report Number

Baseefa Certification Report No. 03(C)0265

17 Special Conditions for Safe Use

None

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

Number	Issue	Date	Description
562-131 Sheets 1 to 3	A	26-03-03	General Arrangement, SM87 Beacons
562-130	A	28-02-03	Enclosure, Earth & Seal Detail
562-128	A	25-03-03	Cover, Machining Detail, Stainless Steel
562-129	A	25-03-03	Enclosure & Cover Detail, Aluminium
562-127	A	25-03-03	Enclosure, Machining Detail, Stainless Steel
562-132	A	26-03-03	Circuit Diagram, SM87 HXB 240V, High Power
562-133	A	26-03-03	Circuit Diagram, SM87 HXB 240V
562-134	A	23-03-03	Circuit Diagram, SM87 HXB 110/120V
562-135	A	27-03-03	Circuit Diagram, SM87 HXB 254V
562-136	A	27-03-03	Circuit Diagram, SM87 HXB 24V
562-137	A	26-03-03	Circuit Diagram, SM87 HXB 48V
562-138	A	26-03-03	Circuit Diagram, Relay/Telephone Interface
562-139	A	26-03-03	Circuit Diagram, SM87 Fluorescent 12, 24 & 48V
562-140	A	26-03-03	Circuit Diagram, SM87 LED 24V
562-141	A	26-03-03	Circuit Diagram, SM87 LED 48V
562-142	A	26-03-03	Circuit Diagram, SM87 LED (Blue) 24 & 48V
562-143	A	26-03-03	Circuit Diagram, SM87 HXB 12V
562-144	A	26-03-03	Circuit Diagram, SM87 HXB 30V

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa03ATEX0222/1**
4	Equipment or Protective System:	**SM87 BEACONS**
5	Manufacturer:	**MEDC Limited**
6	Address:	**Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa03ATEX0222 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0676**

Project File No. **05/0662**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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Baseefa is a trading name of Baseefa (2001) Ltd
Registered in England No. 4305578 at the above address

13 # Schedule

14 ## Certificate Number Baseefa03ATEX0222/1

15 **Description of the variation to the Equipment or Protective System**

Variation 1.1

Increased dimensional tolerance for the wellglass cover.

16 **Report Number**

None

17 **Special Conditions for Safe Use**

None

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Issue	Date	Description
562-131 Sheets 1 to 3	B	06-10-05	General Arrangement, SM87 Beacons

1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa03ATEX0222/2**
4	Equipment or Protective System:	**SM87 BEACONS**
5	Manufacturer:	**MEDC**
6	Address:	**Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa03ATEX0222 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0676**

Project File No. **07/0040**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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DIRECTOR
On behalf of
Baseefa (2001) Ltd.

13 # Schedule

14 ## Certificate Number Baseefa03ATEX0222/2

15 **Description of the variation to the Equipment or Protective System**

Variation 2.1

Increase in the maximum dissipated wattage of the LUI fluorescent fitting rated at 110V to 120V from 5W to 10W

16 **Report Number**

None

17 **Special Conditions for Safe Use**

None

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Issue	Date	Description
562-131 Sheets 1 to 3	C	11-01-07	General Arrangement, SM87 Beacons
562-573	A	11-01-07	AC Fluorescent Ballast Circuit Diagram

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3 Supplementary EC - Type Examination Certificate Number: **Baseefa03ATEX0222/3**

4 Equipment or Protective System: **SM87 BEACONS**

5 Manufacturer: **MEDC**

6 Address: **Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa03ATEX0222 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0676**

Project File No. **07/0351**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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DIRECTOR
On behalf of
Baseefa (2001) Ltd.

13 # Schedule

14 ## Certificate Number Baseefa03ATEX0222/3

15 **Description of the variation to the Equipment or Protective System**

Variation 3.1

Increase in the depth of label fixing holes.

16 **Report Number**

None

17 **Special Conditions for Safe Use**

None

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Issue	Date	Description
562-129	B	24-04-07	Enclosure/Cover Details

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**See Schedule**
4	Equipment or protective system:	**See Schedule**
5	Manufacturer:	**MEDC Limited**
6	Address:	**Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This supplementary certificate extends the EC - Type Examination Certificates listed in the Schedule to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedules of the said Certificates but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

A copy of this Supplementary Certificate shall be attached to each of the original Certificates.

This certificate may only be reproduced in its entirety, without any change, Schedule included.

Baseefa Customer Reference No. **0676**

Project File No. **08/0067**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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Baseefa is a trading name of Baseefa (2001) Ltd
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Schedule

Description of the variation to the Equipment or Protective System

Alternative certification label wording for the units listed below and as on the scheduled drawings.

Certificate No.	Supplement No.	Equipment Type
BAS00ATEX2031	3	Type XB9 Xenon Beacon
BAS00ATEX2097X	10	Type DB3 Sounder and DB4 Speaker Units
BAS00ATEX2204X	2	Type XB10 Beacon
Baseefa02ATEX0224X	6	Type XB4 Xenon Beacon
BAS02ATEX2086X	6	Type DB10 Loudspeaker Units
Baseefa03ATEX0222	4	Type SM87 HXB & SM87 LED Beacons
Baseefa04ATEX0166X	3	Type DB16 IIB Speaker Unit

Report No.

None

Special Conditions for Safe Use

None additional to those listed previously

Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

Drawings and Documents

Number	Sheet	Issue	Date	Description
227-173	-	A	28-01-08	Type XB9 Xenon Beacon
219-833	-	A	28-01-08	Type DB3 Sounder Units
199-519	-	A	28-01-08	Type DB4 Speaker Units
228-210	-	A	28-01-08	Type XB10 Beacon
188-625	-	A	28-01-08	Type XB4 Xenon Beacon
253-154	-	A	07-01-08	Type DB10 Loudspeaker Units
562-661	-	A	28-01-08	Type SM87 HXB Xenon Beacon
562-662	-	A	28-01-08	Type SM87 LED Beacon
286-145	-	A	07/01/08	Type DB16 IIB Speaker Unit

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa03ATEX0222/5**
4	Equipment or Protective System:	**SM87 BEACONS**
5	Manufacturer:	**Cooper MEDC Limited**
6	Address:	**Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This supplementary certificate extends EC – Type Examination Certificate No. **Baseefa03ATEX0222** to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0676**

Project File No. **10/0595**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

R S SINCLAIR
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On behalf of
Baseefa

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Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

13 # Schedule

14 ## Certificate Number Baseefa03ATEX0222/5

15 Description of the variation to the Equipment or Protective System

Variation 5.1

To permit clear LEDs in the SM87 LED Beacon.

16 Report Number

None.

17 Special Conditions for Safe Use

None

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
562-141	1	B	20.07.10	Circuit Diagram, SM87 LED Blue/Clear 24V & 48V

FIRE FLASH BEACON

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Powering Business Worldwide

EU-Declaration of conformity

MEDC22DOC104X

We

Eaton MEDC Limited
Unit B, Sutton Parkway, Oddicroft Lane,
Sutton-In-Ashfield, NG17 5FB

hereby declare in our sole responsibility, that the product

Beacon

Ex II 2 GD	XB4 Xenon Beacon	Baseefa02ATEX0224X	Ex II 2 G	FL12 Filament Beacon	BAS99ATEX2196X
Ex II 2 GD	FB4 Filament Beacon	Baseefa02ATEX0224X	Ex II 2 G	FB12 Filament Beacon	BAS99ATEX2196X
Ex II 2 GD	FB4E Filament Beacon	Baseefa02ATEX0224X	Ex II 2 G	TH12 Rotating Beacon	BAS99ATEX2196X
Ex II 1 G	XB8 Xenon Beacon	BAS02ATEX1258X	Ex II 2 GD	XB15 Xenon Beacon	Baseefa04ATEX0009X
Ex II 2 G	XB9 Xenon Beacon	BAS00ATEX2031X	Ex II 2 GD	FB15 Filament Beacon	Baseefa04ATEX0009X
Ex II 2 G	XB10 Xenon Beacon	BAS00ATEX2204X	Ex II 2 GD	LD15 Led Beacon	Baseefa04ATEX0009X
Ex II 2 G	XB10E Xenon Beacon	BAS00ATEX2226X	Ex II 2 GD	SM87XBT Xenon Beacon	Baseefa03ATEX0222X
Ex II 2 GD	XB11 Xenon Beacon	BAS99ATEX2195X	Ex II 2 GD	SM87LU1 Fluorescent Beacon	Baseefa03ATEX0222X
Ex II 2 GD	FL11 Filament Beacon	BAS99ATEX2195X	Ex II 2 GD	SM87LU3 Filament Beacon	Baseefa03ATEX0222X
Ex II 2 GD	FB11 Filament Beacon	BAS99ATEX2195X	Ex II 2 GD	SM87HXB Xenon Beacon	Baseefa03ATEX0222X
Ex II 2 G	XB12 Xenon Beacon	BAS99ATEX2196X	Ex II 2 GD	SM87LED Beacon	Baseefa03ATEX0222X

complies with the following EU directives, their corresponding harmonised standards, and other normative documents.

Terms of the directive		*Title and / or No. and date of issue of the standard*
2014/30/EU:	*EMC Directive - relating to Electromagnetic Compatibility*	EN 61000-6-2:2005 EN 61000-6-4:2007+A1:2011
2014/34/EU:	*ATEX Directive - relating to equipment and protective systems intended for use in potentially explosive atmospheres.*	EN IEC 60079-0:2018† EN 60079-1:2014† EN IEC 60079-7: 2015 +A1: 2018 EN 60079-11: 2012† EN 60079-28: 2015 EN 60079-31: 2014†

† Where products were initially assessed for compliance with the Essential Health and Safety Requirements of the Directive using earlier harmonized standards, a subsequent review has determined that compliance is unaffected by the current harmonized standard(s) listed above.

2015/863/EU:	*RoHS Directive - relating to hazardous substances in electrical and electronic equipment*	EN IEC 63000:2018

Name — *Stewart Parfitt*
Designation — *Engineering Director*
Place and date — *Luton, 18th November 2024*

For the safe use of this equipment, the information given in the accompanying operating instructions must be followed.

Notified Bodies responsible for issuing Cat 1 or 2 ATEX Certificates:
0598 SGS Fimko Oy, Takomotie 8, FI-00380 Helsinki, Finland
Notified Body responsible for ATEX QA regime:
0598 SGS Fimko Oy, Takomotie 8, FI-00380 Helsinki, Finland

Registered in England No. 1202172
VAT Number GB127566651

1 # SUPPLEMENTRY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa03ATEX0222/6**
4	Equipment or Protective System:	**SM87 Beacons**
5	Manufacturer:	**Cooper MEDC Limited**
6	Address:	**Colliery Road, Pinxton, Nottingham NG16 6JF**

7 This supplementary certificate extends EC – Type Examination Certificate No. **Baseefa03ATEX0222** to apply to equipment or a protective system designed and constructed in accordance with the specification set out in the Schedule of this certificate which incorporates and supersedes all previous issues of the said certificate.

8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR/09/0082/00**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN60079-0: 2009 **EN60079-1: 2007** **IEC60079-31: 2008**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This Supplementary EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

Ⓔx II 2 GD Ex d IIC T* (Ta -55°C to + **°C) Gb Ex tb IIIC T°C (Ta -55°C to + **°C) Db IP66/IP67**

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0676**

Project File No. **07/1065**

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R S SINCLAIR
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On behalf of
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Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

13 **Schedule**

14 **Certificate Number Baseefa03ATEX222/6**

15 Description of Equipment or Protective System

The Type SM87 Beacons comprise a cylindrical enclosure on a square base and a cover provided with a glass dome to component enclosure Baseefa09ATEX0018U. The base and cover may be manufactured from either aluminium or stainless steel and the cover is secured by screws of grade A4-80 stainless steel. The base is provided with up to four threaded cable entries. The units may be joined together by the manufacturer's supplied coupling up to a maximum of 5 units.

The enclosure contains various internal arrangements to form the following:-

A filament lamp and terminals to form a **Type SM87 LU3** rated up to 240Vac, 10W, 25W or 40W.

A fluorescent lamp, a PCB and terminals to form a **Type SM87 LU1** rated up to 254Vac or 48Vdc, 5W or 10W.

A Xenon Lamp, a PCB and terminals to form a **Type SM87 HXB** rated up to 254Vac or 48Vdc, 11W.

A Xenon electronics unit PCB and terminals to form a **Type SM87 XBT/A** rated up to 254Vac or 48Vdc 11W. This unit is to drive the XTB/B unit described below.

A Xenon Lamp PCB and terminals to form a **Type SM87 XBT/B** powered from the unit above.

Four PCBs containing clusters of LEDs, a driver PCB and terminals to form a **Type SM87 LED** rated up to 48Vdc 4W (white) or 5.6W (blue).

The temperature classification and ambient temperature range for the beacons fitted with the specified lamps are indicated below.

Beacon	Watts	Marked Temperature	Ambient temperature range	Cable Temperature Rise (K)
SM87 LU3	10	T100°C	-55°C to + 70°C	30
		T85°C	-55°C to + 55°C	
		T70°C	-55°C to + 40°C	
	25	T130°C	-55°C to + 55°C	65
		T115°C	-55°C to + 40°C	
	40	T155°C	-55°C to + 55°C	110
		T140°C	-55°C to + 40°C	
SM87 LU1	5	T85°C	-55°C to + 55°C	50
		T70°C	-55°C to + 40°C	
	10	T85°C	-55°C to + 55°C	50
		T70°C	-55°C to + 40°C	
SM87 HXB	11	T95°C	-55°C to + 70°C	60
		T80°C	-55°C to + 55°C	
		T65°C	-55°C to + 40°C	
SM87 XBT/A	11	T70°C	-55°C to + 55°C	40
		T55°C	-55°C to + 40°C	

Beacon	Watts	Marked Temperature	Ambient temperature range	Cable Temperature Rise (K)
SM87 XBT/B	-	T110°C	-55°C to + 85°C	20
		T95°C	-55°C to + 70°C	
		T80°C	-55°C to + 55°C	
		T65°C	-55°C to + 40°C	
SM87 LED White	4	T70°C	-55°C to + 55°C	20
		T55°C	-55°C to + 40°C	
SM87 LED Blue	5.6	T70°C	-55°C to + 55°C	20
		T55°C	-55°C to + 40°C	

16 Report Number

Baseefa Certification Report GB/BAS/ExTR09.0082/00

17 Special Conditions for Safe Use

None.

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

The drawings indicated below amalgamate the current design and previous variations, and supersede all previous issues.

Number	Sheet	Issue	Date	Description
562-749	1	A	11.08.10	XHB, XBT, LU1, LU3, LED Assemblies
562-749	2	A	11.08.10	XHB, XBT, LU1, LU3, LED Assemblies
562-749	3	A	11.08.10	XHB, XBT, LU1, LU3, LED Assemblies

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa03ATEX0222/7**
4	Equipment or Protective System:	**SM87 Beacons**
5	Manufacturer:	**Cooper MEDC Limited**
6	Address:	**Unit B, Sutton Parkway, Oddicroft Lane, Sutton-in-Ashfield, NG17 5FB**

7 This supplementary certificate extends EC – Type Examination Certificate No. **Baseefa03ATEX0222** to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

Baseefa Customer Reference No. **0676**

Project File No. **15/0438**

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pp MPowney MPowney
R S SINCLAIR
GENERAL MANAGER
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa03ATEX0222/7**

15 **Description of the variation to the Equipment or Protective System**

Variation 7.1

To permit an alternative type MBK 2.5 terminal, and minor drawings amendments.

Variation 7.2

To permit an increase in power of the blue and white LED versions to 7.2W.

The complete listing is indicated below.

Beacon	Watts	Marked Temperature	Ambient temperature range	Cable Temperature Rise (K)
SM87 LU3	10	T100°C	-55°C to + 70°C	30
		T85°C	-55°C to + 55°C	
		T70°C	-55°C to + 40°C	
	25	T130°C	-55°C to + 55°C	65
		T115°C	-55°C to + 40°C	
	40	T155°C	-55°C to + 55°C	110
		T140°C	-55°C to + 40°C	
SM87 LU1	5	T85°C	-55°C to + 55°C	50
		T70°C	-55°C to + 40°C	
	10	T85°C	-55°C to + 55°C	50
		T70°C	-55°C to + 40°C	
SM87 HXB	11	T95°C	-55°C to + 70°C	60
		T80°C	-55°C to + 55°C	
		T65°C	-55°C to + 40°C	
SM87 XBT/A	11	T70°C	-55°C to + 55°C	40
		T55°C	-55°C to + 40°C	
SM87 XBT/B	-	T110°C	-55°C to + 85°C	20
		T95°C	-55°C to + 70°C	
		T80°C	-55°C to + 55°C	
		T65°C	-55°C to + 40°C	
SM87 LED Red/green/amber	4	T70°C	-55°C to + 55°C	20
		T55°C	-55°C to + 40°C	
SM87 LED White/Blue	7.2	T70°C	-55°C to + 55°C	20
		T55°C	-55°C to + 40°C	

16 **Report Number**

GB/BAS/ExTR15.0176/00.

17 **Specific Conditions of Use**

None.

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Sheet	Issue	Date	Description
562-749	1-3 inc.	B	03.06.15	General Assembly SM87 – ATEX Certification

1 # EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	EC - Type Examination Certificate Number:	**Baseefa03ATEX0222**
4	Equipment or Protective System:	**SM87 BEACONS**
5	Manufacturer:	**MEDC LIMITED**
6	Address:	**Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa (2001) Ltd. Notified body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. **03(C)0265**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + Amendments 1 & 2 **EN 50018: 2000 + Amendment 1** **EN 50281-1-1: 1998**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

⟨Ex⟩ II 2 GD EEx d IIC T* (see schedule)

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. **0676**

Project File No. **03/0265**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.

13 **Schedule**

14 **Certificate Number Baseefa03ATEX0222**

15 Description of Equipment or Protective System

The Type SM87 Beacons each comprise a cylindrical enclosure on a square base with a domed glass cover secured by 4 off M6 x 12mm long socket head cap screws of grade A4-80 stainless steel. The base and cover ring may be manufactured from either aluminium or stainless steel.

The interior of the units may contain one of the following lamp types and the associated control gear, each with different designations and thermal characteristics as shown below :-

TYPE SM87 ---	Lamp Type	Voltage (V)	Watts (W)	Temperature Classification T* (T_{amb}= -55°C to + °C)			
				+40°C	+55°C	+70°C	+85°C
LU3	Filament	240 ac	48	T135°C	T200°C	N/A	
LU1	Fluorescent	254 ac	10	T100°C	T135°C	N/A	
		240 ac		T85°C	T100°C		
		110/120 ac	5				
		12, 24, 48 dc			T85°C		
HXB	Xenon	110, 240, 254 ac	11	T85°C	T135°C	T135°C	N/A
		12, 24, 30, 48 dc					
XBT/A	Xenon (Electronics unit)	110, 240, 254 ac	11*	T85°C	T135°C	N/A	
		12, 24, 30, 48 dc					
XBT/B	Xenon (Lamp unit)	N/A		N/A			T135°C
LED	LED	24, 48 dc	4	T85°C	T135°C	N/A	
	LED (Blue)		5.6				

* Note XBT units A & B are intended to be used together in pairs and are rated accordingly

The enclosure is provided with internal and external earth connection facilities.

Up to 4 cable entry holes threaded M20 to M25 (or NPT & Pg equivalents) are provided for the accommodation of suitable BASEEFA certified flameproof IIC cable entry devices, with or without the interposition of a suitable BASEEFA certified flameproof IIC thread adapter. Unused entries are to be fitted with suitable BASEEFA certified flameproof IIC stopping plugs.

Suitable flameproof IIC cable entry devices, thread adapters and stopping plugs certified as Equipment (not a Component) under an EC Type Examination Certificate to Directive 94/9/EC may also be used in the manner specified above.

If the unit is intended for use in a dust atmosphere these devices must be sealed in accordance with the relevant codes of practice to ensure a dust tight seal.

In addition, these units may be supplied by the manufacturer in an assembly of up to five interconnected enclosures.

16 Report Number

Baseefa Certification Report No. 03(C)0265

17 Special Conditions for Safe Use

None

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

Number	Issue	Date	Description
562-131 Sheets 1 to 3	A	26-03-03	General Arrangement, SM87 Beacons
562-130	A	28-02-03	Enclosure, Earth & Seal Detail
562-128	A	25-03-03	Cover, Machining Detail, Stainless Steel
562-129	A	25-03-03	Enclosure & Cover Detail, Aluminium
562-127	A	25-03-03	Enclosure, Machining Detail, Stainless Steel
562-132	A	26-03-03	Circuit Diagram, SM87 HXB 240V, High Power
562-133	A	26-03-03	Circuit Diagram, SM87 HXB 240V
562-134	A	23-03-03	Circuit Diagram, SM87 HXB 110/120V
562-135	A	27-03-03	Circuit Diagram, SM87 HXB 254V
562-136	A	27-03-03	Circuit Diagram, SM87 HXB 24V
562-137	A	26-03-03	Circuit Diagram, SM87 HXB 48V
562-138	A	26-03-03	Circuit Diagram, Relay/Telephone Interface
562-139	A	26-03-03	Circuit Diagram, SM87 Fluorescent 12, 24 & 48V
562-140	A	26-03-03	Circuit Diagram, SM87 LED 24V
562-141	A	26-03-03	Circuit Diagram, SM87 LED 48V
562-142	A	26-03-03	Circuit Diagram, SM87 LED (Blue) 24 & 48V
562-143	A	26-03-03	Circuit Diagram, SM87 HXB 12V
562-144	A	26-03-03	Circuit Diagram, SM87 HXB 30V

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa03ATEX0222/1**
4	Equipment or Protective System:	**SM87 BEACONS**
5	Manufacturer:	**MEDC Limited**
6	Address:	**Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa03ATEX0222 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0676**

Project File No. **05/0662**

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13 # Schedule

14 ## Certificate Number Baseefa03ATEX0222/1

15 **Description of the variation to the Equipment or Protective System**

Variation 1.1

Increased dimensional tolerance for the wellglass cover.

16 **Report Number**

None

17 **Special Conditions for Safe Use**

None

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Issue	Date	Description
562-131 Sheets 1 to 3	B	06-10-05	General Arrangement, SM87 Beacons

1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa03ATEX0222/2**
4	Equipment or Protective System:	**SM87 BEACONS**
5	Manufacturer:	**MEDC**
6	Address:	**Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa03ATEX0222 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

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Baseefa Customer Reference No. **0676**

Project File No. **07/0040**

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13 # Schedule

14 ## Certificate Number Baseefa03ATEX0222/2

15 **Description of the variation to the Equipment or Protective System**

Variation 2.1

Increase in the maximum dissipated wattage of the LUI fluorescent fitting rated at 110V to 120V from 5W to 10W

16 **Report Number**

None

17 **Special Conditions for Safe Use**

None

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Issue	Date	Description
562-131 Sheets 1 to 3	C	11-01-07	General Arrangement, SM87 Beacons
562-573	A	11-01-07	AC Fluorescent Ballast Circuit Diagram

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3 Supplementary EC - Type Examination Certificate Number: **Baseefa03ATEX0222/3**

4 Equipment or Protective System: **SM87 BEACONS**

5 Manufacturer: **MEDC**

6 Address: **Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa03ATEX0222 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

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Baseefa Customer Reference No. **0676**

Project File No. **07/0351**

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13 # Schedule

14 ## Certificate Number Baseefa03ATEX0222/3

15 **Description of the variation to the Equipment or Protective System**

Variation 3.1

Increase in the depth of label fixing holes.

16 **Report Number**

None

17 **Special Conditions for Safe Use**

None

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Issue	Date	Description
562-129	B	24-04-07	Enclosure/Cover Details

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**See Schedule**
4	Equipment or protective system:	**See Schedule**
5	Manufacturer:	**MEDC Limited**
6	Address:	**Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This supplementary certificate extends the EC - Type Examination Certificates listed in the Schedule to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedules of the said Certificates but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

A copy of this Supplementary Certificate shall be attached to each of the original Certificates.

This certificate may only be reproduced in its entirety, without any change, Schedule included.

Baseefa Customer Reference No. **0676**

Project File No. **08/0067**

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Schedule

Description of the variation to the Equipment or Protective System

Alternative certification label wording for the units listed below and as on the scheduled drawings.

Certificate No.	Supplement No.	Equipment Type
BAS00ATEX2031	3	Type XB9 Xenon Beacon
BAS00ATEX2097X	10	Type DB3 Sounder and DB4 Speaker Units
BAS00ATEX2204X	2	Type XB10 Beacon
Baseefa02ATEX0224X	6	Type XB4 Xenon Beacon
BAS02ATEX2086X	6	Type DB10 Loudspeaker Units
Baseefa03ATEX0222	4	Type SM87 HXB & SM87 LED Beacons
Baseefa04ATEX0166X	3	Type DB16 IIB Speaker Unit

Report No.

None

Special Conditions for Safe Use

None additional to those listed previously

Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

Drawings and Documents

Number	Sheet	Issue	Date	Description
227-173	-	A	28-01-08	Type XB9 Xenon Beacon
219-833	-	A	28-01-08	Type DB3 Sounder Units
199-519	-	A	28-01-08	Type DB4 Speaker Units
228-210	-	A	28-01-08	Type XB10 Beacon
188-625	-	A	28-01-08	Type XB4 Xenon Beacon
253-154	-	A	07-01-08	Type DB10 Loudspeaker Units
562-661	-	A	28-01-08	Type SM87 HXB Xenon Beacon
562-662	-	A	28-01-08	Type SM87 LED Beacon
286-145	-	A	07/01/08	Type DB16 IIB Speaker Unit

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa03ATEX0222/5**
4	Equipment or Protective System:	**SM87 BEACONS**
5	Manufacturer:	**Cooper MEDC Limited**
6	Address:	**Colliery Road, Pinxton, Nottingham, NG16 6JF**

7 This supplementary certificate extends EC – Type Examination Certificate No. **Baseefa03ATEX0222** to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0676**

Project File No. **10/0595**

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13 # Schedule

14 ## Certificate Number Baseefa03ATEX0222/5

15 Description of the variation to the Equipment or Protective System

Variation 5.1

To permit clear LEDs in the SM87 LED Beacon.

16 Report Number

None.

17 Special Conditions for Safe Use

None

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
562-141	1	B	20.07.10	Circuit Diagram, SM87 LED Blue/Clear 24V & 48V

SOUNDER

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[1] # EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

[3] EU-Type Examination Certificate Number: **UL 21 ATEX 2559X Rev. 0**

[4] Product: **DB4BM range of Loudspeakers and DB3BM range of Sounders**

[5] Manufacturer: **Eaton MEDC Ltd.**

[6] Address: **Unit B, Sutton Parkway, Oddicroft Lane, Sutton-in-Ashfield NG17 5FB UK**

[7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. **DK/ULD/ExTR21.0017/00.**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-1: 2014** **EN 60079-31:2014**

[10] If the sign "**X**" is placed after the certificate number, it indicates that the product is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

[12] The marking of the product shall include the following:

II 2 G Ex db IIC T* Gb

II 2 D Ex tb IIIC T*°C Db

(Tamb -60°C to +*°C)

*See Schedule for T class & ambient combination

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2021-08-11

Notified Body UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com

This certificate may only be reproduced in its entirety and without any change, schedule included.

[13] [14]

Schedule
EU-TYPE EXAMINATION CERTIFICATE No.
UL 21 ATEX 2559X Rev. 0

[15] Description of Product

DB4BM Loudspeakers
The DB4BM Loudspeakers are comprised of a cylindrical metallic body and two metallic covers, two compartments are electrically connected by a bushing. The front cover is threaded and closes a flameproof chamber for housing the speaker driver assembly. In the front cover is a sintered wire mesh element that facilitates sound transmission. An elastomeric O-ring seal located within the cover provides against water ingress to the manufacturer's self-declared IPX6 protection when fitted with a long horn flare or self-declared IPX5 protection when fitted with a short horn flare.

The flanged rear cover closes a chamber that houses a transformer assembly and control PCB. An elastomeric O-ring seal located within the enclosure body provides against water ingress to the manufacturer's self-declared IPX6 and IPX7 protection. The cover is fixed with six M5 x 0.8 x 20mm long socket head screws of minimum property class A2-70, the screws can be both reduced shank and fully threaded to the screw head. Up to two M20 or M25 cable entries (alternative option 1/2" NPT or ¾" NPT) are provided in the side of the enclosure to accommodate suitably certified cable entries devices.
A non-metallic horn assembly comprising long, or short horn flare is fitted externally to the front cover, and along the sides, of the enclosure, together with a metallic mounting bracket.

DB3BM Sounders
The DM3BM Sounders are identical in construction to the DB4BM Loudspeakers with the exception that the flameproof chamber contains different components, including sound generating PCB's.

Performance testing
Not applicable.

Temperature range and Electrical Data

Loudspeakers

Type Designation	Rated Voltage Max.	Rated Power	Ambient Range / Temperature Class							
			-60°C to +40°C		-60°C to +55°C		-60°C to +70°C		-60°C to +85°C	
			Gas	Dust	Gas	Dust	Gas	Dust	Gas	Dust
DB4BM	25V ac	8W	T6	T85°C	T5	T100°C	-	-	T4	T135°C
DB4BM	25V ac	15W	T5	T100°C	-	-	-	-	T4	T135°C
DB4BM	25V ac	25W	T5	T100°C	-	-	T4	T135°C	T3	T200°C
DB4BM	70V ac	8W	T6	T85°C	T5	T100°C	-	-	T4	T135°C
DB4BM	70V ac	15W	T5	T100°C	-	-	-	-	T4	T135°C
DB4BM	70V ac	25W	T5	T100°C	-	-	T4	T135°C	T3	T200°C
DB4BM	100V ac	8W	T6	T85°C	T5	T100°C	-	-	T4	T135°C
DB4BM	100V ac	15W	T5	T100°C	-	-	-	-	T4	T135°C
DB4BM	100V ac	25W	T5	T100°C	-	-	T4	T135°C	T3	T200°C

Sounders

Type Designation	Rated Voltage Range	Rated Power	Ambient Range / Temperature Class							
			-60°C to +40°C		-60°C to +55°C		-60°C to +70°C		-60°C to +85°C	
			Gas	Dust	Gas	Dust	Gas	Dust	Gas	Dust
DB3BM	12-48V dc	15W	T6	T85°C	T5	T100°C	-	-	T4	T135°C
DB3BM	110/120V ac	15W	T6	T85°C	T5	T100°C	-	-	T4	T135°C
DB3BM	220/240V ac	15W	T6	T85°C	T5	T100°C	-	-	T4	T135°C
DB3BM	254V ac	15W	T6	T85°C	T5	T100°C	-	-	T4	T135°C

Routine Tests
Routine tests according to EN 60079-1 cl. 16. are not required, as the enclosures have been successfully tested at four times the reference pressure.

This certificate may only be reproduced in its entirety and without any change, schedule included.

[13] **Schedule**

[14] **EU-TYPE EXAMINATION CERTIFICATE No.**

UL 21 ATEX 2559X Rev. 0

[16] Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17] Specific conditions of use:

- For replacement purposes M5 x 0.8 x 20 mm long cover bolts shall be used and shall have a property class of A2-70 or stronger. Reduced shank fasteners must be used with covers employing threaded holes. Fully threaded fasteners must be used with covers employing plain clearance holes.
- The flameproof joints are not intended to be repaired.
- Potential Electrostatic Charging Hazard. If the unit requires cleaning, only clean exterior with a damp cloth to avoid electrostatic charge build-up. See instructions for further guidance.
- If a metal certification label is attached to the horn it is known to be capable of retaining a 3.33 pF charge.

Condition of Manufacture

- The current/ power draw for DB3BM Sounder custom tones shall not exceed that of the worst-case French Fire Sound Tone (Tone 15).

[18] Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The trademark EATON will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.

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PUSH BUTTON DPDT CONTACT

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Translation

1 # EU-Type Examination Certificate

2 **Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014**

3 EU-Type Examination Certificate Number: **BVS 22 ATEX E 032 X** Issue: **00**

4 Equipment: **Control Unit**
type GHG 41.....
type GHG 43.....

5 Manufacturer: **Cooper Crouse-Hinds GmbH**

6 Address: **Neuer Weg Nord 49, 69412 Eberbach, Germany**

7 This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

8 DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential Report No. BVS PP 22.2063 EU.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018	**General requirements**
EN 60079-1:2014	**Flameproof enclosure "d"**
EN IEC 60079-7:2015 + A1:2018	**Increased Safety "e"**
EN 60079-11:2012	**Intrinsic Safety "i"**
EN 60079-18:2015+A1:2017	**Encapsulation "m"**
EN 60079-31:2014	**Protection by Enclosure "t"**

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

11 This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

II 2G Ex eb * IIC/IIB/IIB+H_2 T6/T5 Gb
II 2D Ex tb IIIC T80 °C Db

*) depending on the separately certified components in type of protection type "db", "mb" and/or "ib".

DEKRA Testing and Certification GmbH
Bochum, 2022-06-13

Signed: Jörg-Timm Kilisch

Managing Director

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DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 22 ATEX E 032 X issue 00

15 **Product description**

15.1 **Subject and type**

Control Unit type GHG 41[1).2).3).4)..5).6)….7)]

[1)] Manufacturer control station programme

[2)] Enclosure type

Moulded plastic	1

[3)] Type

Ex i- Measuring instruments	4
Costumer special types	5
No Ex	6
NOS	7
Standard type	8
Crouse Hinds Australia	9

[4)] Enclosure size

Size (85mm x 85mm x 78mm)	1
Size (85mm x 125mm x 78mm)	2
Size (85mm x 165mm x 78mm)	3

[5)6)7)] Alphanumeric character string, without influence on the explosion protection

Type ****[1)]*******[2)] GHG411

[1)] Item number of customer order

[2)] Customer order number

*) Customized type code based on the standard type code

Control Unit type GHG 41[1).2).3).4)..5).6)….7)]

[1)] Manufacturer control station programme

[2)] Enclosure type

Moulded plastic flange mounting	2

[3)] Type

Ex i- Measuring instruments	4
Costumer special types	5
No Ex	6
NOS	7
Standard type	8
Crouse Hinds Australia	9

[4)] enclosure size

Size (85mm x 125mm x 78mm)	2
Size (85mm x 165mm x 78mm)	3

[5)6)7)] Alphanumeric character string, without influence on the explosion protection

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Control Unit type GHG 41[1].[2].[3].[4]..[5].[6]….[7]

[1] Manufacturer control station programme

[2] Enclosure type

Light alloy	3

[3] Type

Ex i- Measuring instruments	4
Costumer special types	5
No Ex	6
NOS	7
Standard type	8
Crouse Hinds Australia	9

[4] Enclosure size

Size (122mm x 120mm x 81mm)	4
Size (220mm x 120mm x 81mm)	5

[5][6][7] Alphanumeric character string, without influence on the explosion protection

Control Unit type GHG 41[1].[2].[3].[4]..[5].[6]….[7]

[1] Manufacturer control station programme

[2] Enclosure type

Stainless steel	4

[3] Type

Ex i- Measuring instruments	4
costumer special types	5
No Ex	6
NOS	7
standard type	8
Crouse Hinds Australia	9

[4] Enclosure size

Size (166mm x 140mm x 76mm)	1
Size (286mm x 140mm x 76mm)	2

[5][6][7] Alphanumeric character string, without influence on the explosion protection

Control Unit type GHG 41[1].[2].[3].[4]..[5].[6]….[7]

[1] Manufacturer control station programme

[2] Enclosure type

Combination of plastic enclosure GHG411*	6

[3] Type

Ex i- Measuring instruments	4
costumer special types	5
No Ex	6
NOS	7
Standard type	8
Crouse Hinds Australia	9

[4][5][6][7] Alphanumeric character string, without influence on the explosion protection

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Control Unit type GHG 43[1].[2]….[3].[4]….[5]

[1] Manufacturer control station program

[2] Enclosure size
Size (100mm x 158mm x 90mm) 2
size (100mm x 247mm x 90mm) 4

[3][4][5] Alphanumeric character string, without influence on the explosion protection

Type ****[1]*******[2] GHG43
[1] Item number of customer order
[2] Customer order number

*) Customized type code based on the standard type code

15.2 Description

The control units of the GHG41 * * * ** * **** and GHG43 * * * ** * **** are used for on-site control of electrical systems or fixed installation on electrical systems in potentially explosive areas.
The control units are built in Type of Protection increased safety “eb” und protection by enclosure “tb”.
The control units consist of plastic or metal enclosure and can be equipped with different separately certified components according “List of components” GHG9025018F0001 (terminals) und GHG9025018F0002.

15.3 Parameters

Nominal voltage	max.: 690 V AC
Nominal current	max.: 16 A
Ambient temperature range	-40°C … +55°C (GHG411/GHG412/GHG416)*
	-55°C … +55°C (GHG413/GHG414)*
	-40 °C … + 55 °C (GHG43)*

*) The maximum permitted ambient temperature depends on the Ex components used or the housing accessories used.

Parameters for marking GHG411/GHG412/GHG416

<table>
<tr><th rowspan="2">Rated Current [A]</th><th rowspan="2">Cross section [mm²]</th><th colspan="2">Permitted ignition group</th><th rowspan="2">Dust Protection</th></tr>
<tr><th>T_{amb} ≤ +40°C</th><th>+40°C < T_{amb} ≤ +55°C</th></tr>
<tr><td>6</td><td rowspan="3">1.5</td><td colspan="2">T6</td><td rowspan="2">T80°C</td></tr>
<tr><td>10</td><td>T6</td><td>T5</td></tr>
<tr><td>16</td><td colspan="3">n/a</td></tr>
<tr><td>6</td><td rowspan="3">2.5</td><td colspan="2" rowspan="2">T6</td><td rowspan="2">T80°C</td></tr>
<tr><td>10</td></tr>
<tr><td>16</td><td colspan="3">n/a</td></tr>
<tr><td>6</td><td rowspan="3">4</td><td colspan="2" rowspan="2">T6</td><td rowspan="3">T80°C</td></tr>
<tr><td>10</td></tr>
<tr><td>16</td><td>T6</td><td>T5</td></tr>
</table>

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Parameters for marking GHG413

Rated Current [A]	Cross section [mm²]	Permitted ignition group		Dust Protection
		$T_{amb} \leq +40°C$	$+40°C < T_{amb} \leq +55°C$	
6	1.5	T6		T80°C
10		T6	T5	
16		n/A		
6	2.5	T6		T80°C
10				
16		T6	T5	
6	4	T6		
10				
16		T6	T5	

Parameters for marking GHG414

Rated Current [A]	Cross section [mm²]	Permitted ignition group		Dust Protection
		$T_{amb} \leq +40°C$	$+40°C < T_{amb} \leq +55°C$	
6	1.5	T6		T80°C
10		T6	T5	
16		n/a		
6	2.5	T6		T80°C
10				
16		n/a		
6	4	T6		T80°C
10				
16		T6	T5	

Parameters for marking GHG43

Rated Current [A]	Cross section [mm²]	Permitted ignition group		Dust Protection
		$T_{amb} \leq +40°C$	$+40°C < T_{amb} \leq +55°C$	
6	1.5	T6		T80°C
10		T6	T5 (T6 to T_{amb}=+54°C)	
16		n/a		
6	2.5	T6		T80°C
10				
16		T6	n/a (only with suitable cable glands + wires)	
6	4	T6		T80°C
10				

16 **Report Number**

BVS PP 22.2063 EU, as of 2022-06-13

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17 **Specific Conditions of Use**

The plastic enclosures GHG411/GHG412 and GHG43 can alternatively be made of different materials.
Material "A" is conductive with a surface resistance of < 10^9 Ω.
Materials "B" and "C" are non-conductive with a surface resistance > 10^9 Ω.
The code letters are given with a preceding "Mat.:" on the type label.
With regard to the possible risk of electrostatic discharge, the relevant information in the operating instructions must be observed.

18 **Essential Health and Safety Requirements**

Met by compliance with the requirements mentioned in item 9.

19 **Remarks and additional information**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2022-06-13
BVS-Pz/MGR A 20210671 / 3423581

Managing Director

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FLAME SIMULATOR

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SIA „International Center for Quality Certification - ICQC"
Reģ. Nr.LV40103539825
Skolas iela 63-19, Jūrmala, LV-2016, Latvija

Notified Body 2549

EN ISO/IEC 17065
S1-499

(1) EU-TYPE EXAMINATION CERTIFICATE

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **ICQC 19 ATEX 0424 X** **Issue: 2**

(4) Equipment: **FlameSpec Detector types: FLS-IR3-ASXX, FLS-IR3-H2-ASXX, FLS-UV-IR-ASXX, FLS-UV-IR-F-ASXX**

(5) Applicant: **Fire & Gas Detection Technologies, Inc**
4222 E. La Palma Avenue, Anaheim, CA 92807, USA

(6) Manufacturer: **Fire & Gas Detection Technologies, Inc**
4222 E. La Palma Avenue, Anaheim, CA 92807, USA

(7) This equipment and any acceptable variations, also documents which are specified in the schedule to this certificate.

(8) The certification body ICQC, Notified body No. 2549 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.
The examination and test results are recorded in confidential report No. **424-01/2023/04/ATEX**

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC60079-0:2018, EN 60079-1:2014, EN 60079-7:2015, EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and the construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture and supply of this equipment. These are not covered by the certificate

(12) The marking of the equipment or protective system shall include the following:

II 2 G Ex db IIC T5 Gb or II 2 G Ex db eb IIC T5 Gb and II 2D Ex tb IIIC T95 °C Db -55°C<Ta<75°C

II 2 G Ex db IIC T4 Gb or II 2 G Ex db eb IIC T4 Gb and II 2D Ex tb IIIC T105 °C Db -55°C<Ta<85°C

Head of Certification Body: Sergey Kovalev

International Center for Quality Certification Notified Body 2549 JŪRMALA, LATVIJA

Date of issue: 07 February 2023
Jurmala, Latvia

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(13) **SCHEDULE**

(14) **to EU-TYPE EXAMINATION CERTIFICATE: ICQC 19 ATEX 0424 X** **Issue: 2**

(15) **Description of Equipment:**

Optical Flame Detectors types: FLS-IR3-ASXX, FLS-IR3-H2-ASXX, FLS-UV-IR-ASXX, FLS-UV-IR-F-ASXX are infrared and UV/IR flame detectors, which provide fast response, high performance and reliable detection of all types of hydrocarbon and hydrogen fires (visible and non-visible).

The last four symbols in the type designation:
A – ATEX certified
S – stainless steel enclosure
X – openings for M25 (1) or 3/4" NPT (2) cable glands
X – symbol for options, not affecting explosion protection.

The flame detector consists of electronic compartment in type of protection flameproof enclosure "d" and terminal compartment in type of protection "d" or increased safety "e"with two openings 3/4" NPT or M25 for cable glands.

The cable entry devices (cable glands) shall be certified with an appropriated type of protection. Unused entries shall be closed with certified blanking elements. Installing and use of cable gland and blanking elements shall be in compliance with EN 60079-14 current edition.

The detector is intended for use as part of a complex system and can be installed indoor or outdoor. The detector has a window heater, which automatically turns on by the ambient temperature below 5^0C.

There are following features available in the flame detectors:
- Alarm Relay
- Fault Relay
- 4-20 mA and HART Output
- RS-485
- Data/Event logger
- Built-in-Test (BIT)

Technical characteristics:

Parameter	Value
Supply voltage	18 ... 32 V DC
Current Consumption	• Standby: 210 mA Maximum: 300 mA all systems in operation (including window heater)
Alarm Relay, SPST, Normally open and normally closed	2A at 30 VDC
Fault Relay, SPST, Normally open	
Degree of protection	IP66 / IP68
Ambient temperature range	-55°C to +75°C or -55°C to +85°C

Routine tests:
Routine tests according to cl. 7.1 of EN 60079-7 shall be conducted for Exe terminal compartment with a test voltage of 500 V
Routine tests according to cl. 16 of EN 60079-1 can be omitted because the enclosure was tested at four times reference pressure.

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Variation 1 - This variation introduced the following changes:
Manufacturer address update. Product design unchanged.

Variation 2 - This variation introduced the following changes:
Changing the design of the partition wall and cemented joint of the transit PCB between the terminal and electronic compartment.

(16) **Descriptive Documents:**

User Guide Release Number: F120V0020– FlameSpec-IR3; F150V0020– FlameSpec-IR3-H2; F110V0020 – FlameSpec-UV-IR & FlameSpec-UV-IR-F

The drawings are listed in Evaluation report No. 424-01/2023/04/ATEX

Certificate History:

Issue/Date	Evaluation report	Comment
Issue 0 from 21.01.2019	424/2019/07/ATEX	The release of the prime certificate.
Issue 1 from 11.03.2020	424/2019/07/ATEX	The introduction of Variation 1.
Issue 2 from 07.02.2023	424-01/2023/04/ATEX	The introduction of Variation 2.

(17) **Specific conditions of use:**

17.1 The Exd electronic compartment of flame detector has flamepaths which differ from those in IEC 60079-1. Repairs shall be conducted only by Fire & Gas Detection Technologies Inc.

(18) **Essential Health and Safety Requirements:**

Met by compliance with the standards mentioned in clause (9).

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