Base Load Power Hub (BLPH)

F&G FIELD EQUIPMENT

FACTORY ACCEPTANCE TEST PROCEDURE

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Rev.	Date	Description	Prepared	Reviewed	Approved

FORES ENGINEERING

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1 INTRODUCTION

1.1 PROJECT OVERVIEW

Crosswind, a Shell and Eneco joint venture, was awarded the tender to develop the offshore Hollandse Kust Noord (HKN) wind farm, located 18.5km off the coast of Netherlands near the town of Egmond aan Zee. The consortium plans to have HKN operational in 2023 with an installed capacity of 759MW generating at least 3.3TWh per year. This is sufficient renewable power to supply more than 1 million Dutch households with green electricity.

Offshore wind farms produce intermittent electricity and balancing these dips and peaks and integrating this electricity into the national energy system requires new technologies. For this reason, the offshore wind farm will include several new technologies that could be implemented at full-scale in the future. The new technologies being explored include a floating solar park, a short-duration battery storage as well as long-term storage via green hydrogen produced by water electrolysis and subsequently consumed in a fuel cell. The combination of these individual measures, herein referred to as the Base Load Power Hub (BLPH) will ensure a continuous power supply regardless of the wind situation.

1.1.1 Project Location

The Hollandse Kust Noord (HKN) wind farm is located 18.5km off the coast of the Netherlands near the town of Egmond aan Zee.

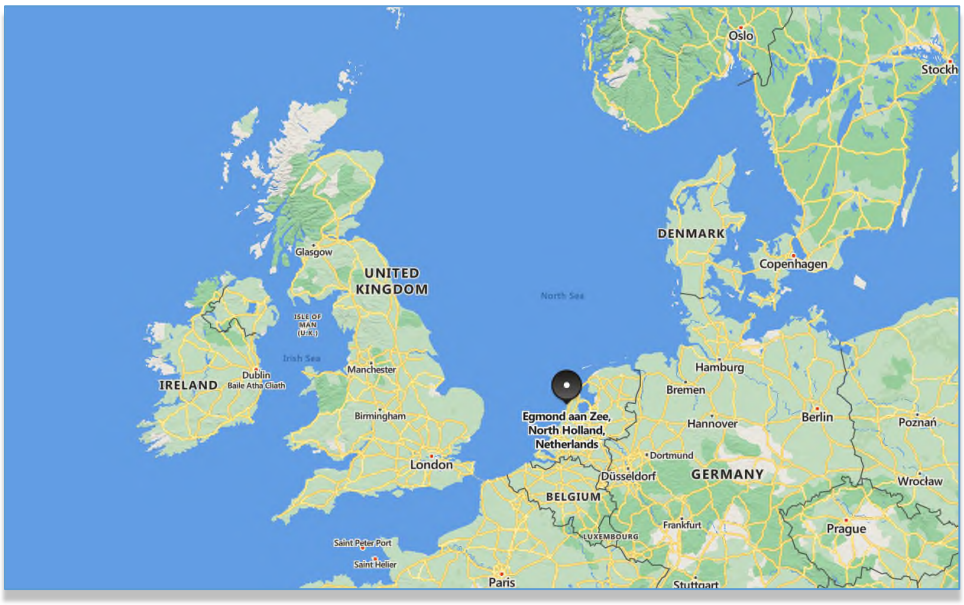


Figure 1 HOLLANDSE KUST NOORD WIND PARK Location Map

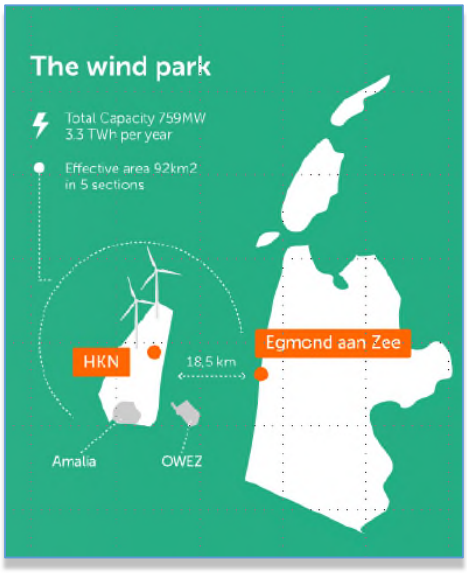


Figure 2 - Wind Park Details

The wind farm will consist of No. 69 x 11.5MW wind turbine generators each to be installed on a dedicated monopile structure. A 70th monopile located on coordinates E 590719.1, N 5841602.3 is reserved for installing the platform accommodating the BLPH. The monopile structure was designed and installed by Van Oord Offshore Wind (VooW) and therefore not part of the BLPH scope.

1.1.2 Project Concept

All components included in the BLPH will be integrated onshore on a topsides and installed in an offshore location within the boundaries of the HKN wind farm. At its simplest, the BLPH will store energy during periods of high electricity generation from renewable sources (a wind turbine generator and the floating solar PV farm) and release it during periods of low generation. In practice. It is expected that the energy stored will supplement generation from renewable sources to ensure that at least 1.0MW of power is exported to the electrical grid regardless of wind/solar availability.

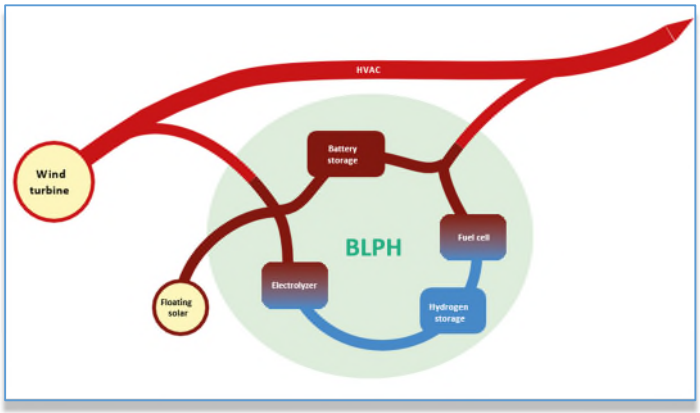


Figure 3 – BLPH Concept

Electricity in the BLPH will be stored in the form of electrons in a battery energy storage system (BESS) as well as converted into green hydrogen via water electrolysis. When the power output from the connecting wind turbine drops to below 1 MWe, the BLPH will return its stored energy to supplement the remaining power output. This will be by discharging the BESS, while stored hydrogen will be converted back into electricity using a fuel cell to extend the discharge duration.

The purpose of the BLPH s to function as a testbed for the integration of energy storage technologies with renewable generation. It is expected that equipment installed on the BLPH will operate as Normally Unmanned Installation for at least two (2) years with no or minimal maintenance and it will have its own independent control room with the ability to communicate with Crosswind's control room.

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2 DOCUMENT SCOPE

The purpose of this procedure is to define how the operating method, the checks and inspection for the Fire & Gas Equipment are carried out in accordance with its Inspection and Test Plan doc. 1724000821-QC-ITP-00002.

For each item in scope of the project will be used the relevant procedure and each activity must be signed in a report attached to this procedure.

Factory Acceptance Tests are carried out at the factory to make sure that all the requirements are met, which results in high quality products. The tests are normally executed in presence of the final customer.

2.1 REFERENCES

Doc. No.	Description
1724000821-IN-DS-00004	INSTRUMENT DATA SHEETS
1724000821-IN-DA-00003	GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM
1724000821-QC-ITP-00002	INSPECTION AND TEST PLAN

Table 1 - Reference Documents

2.2 DEFINITIONS AND ABBREVIATIONS

COMPANY or Client (CPY):	Crosswind
CONTRACTOR (CTR):	ROSETTI MARINO S.p.A.
SYSTEM INTEGRATOR (SI):	FORES ENGINEERING S.r.l.
PROJECT:	HOLLANDSE KUST NOORD WIND PARK Project

Table 2 - Definitions and Abbreviations

3 LIST OF TEST TOOLS USED DURING FAT

n.	Test tools	Test type
1	Measuring tape	Dimensional measures
2	RAL Series	Coating color evaluation
3	Multimeter	Electric parameters measures
4		

Note: All instrument calibration certificates will be provided during FAT and recorded on the FAT reports.

4 ACTIVITIES AND EXECUTIVE MODALITIES

The scope of this document is to describe the requirements concerning Factory Acceptance Test (FAT), according to the ITP document and product's international standards. The FAT is a customized testing procedure for its system and the tests are executed before the final shipping at the plant.

The Inspection and tests shall be done considering the criteria mentioned on this procedure and all reference documents mentioned in section 5.

FAT report shall be completed with the name and signature of the person who carries out the check and/or test. All the results of each test shall be recorded in the test report.

4.1 ESTIMATE DURATION OF TEST

FAT test duration is estimated in 1 working day for loose materials.

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5 FACTORY ACCEPTANCE TEST

5.1 LOOSE MATERIAL VISUAL AND DIMENSIONAL CHECK

5.1.1 Flame Detector Check

Test Name / Test N°	**FLAME DETECTOR CHECK**	
Test Scope	The scope of this test to perform visual and mechanical check of 1 device for each device type	
ITP Reference	1724000821-QC-ITP-00002, section 1.1, 1.2 ,1.3	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	None	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The loose equipment is aligned with Datasheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Datasheets and complete with all accessories
5	Equipment tag labels check (where applicable)	Tag Label provided and compliant to Reference Documents (where applicable). Ex label installed and compliant to the Ex standard (where applicable)
6	Certification check	Atex, Sil, Calibration check (where applicable), Test certificate (where applicable) in compliance and unexpired

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
FGD FlameSpec FLS-UV-IR-AS11					
Remarks:					

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.2 Flame Detector Check Power on

Test Name / Test N°	**FLAME DETECTOR CHECK POWER ON**	
Test Scope	The scope of this test to power on 20% devices	
ITP Reference	1724000821-QC-ITP-00002, section 1.4	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	24VDC	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Power on	Device LED on

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
FGD FlameSpec					
FGD FlameSpec					
FGD FlameSpec					
FGD FlameSpec					
FGD FlameSpec					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.3 Smoke Detector Check

Test Name / Test N°	**SMOKE DETECTOR CHECK**	
Test Scope	The scope of this test to perform visual and mechanical check of 1 device for each device type	
ITP Reference	1724000821-QC-ITP-00002, section 1.1, 1.2 ,1.3	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	None	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The loose equipment is aligned with Datasheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Datasheets and complete with all accessories
5	Equipment tag labels check (where applicable)	Tag Label provided and compliant to Reference Documents (where applicable). Ex label installed and compliant to the Ex standard (where applicable)
6	Certification check	Atex, Sil, Calibration check (where applicable), Test certificate (where applicable) in compliance and unexpired

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
ZETTLER MR601TEx					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.4 Gas Detector Hydrogen Check

Test Name / Test N°	**GAS DETECTOR HYDROGEN CHECK**	
Test Scope	The scope of this test to perform visual and mechanical check of 1 device for each device type	
ITP Reference	1724000821-QC-ITP-00002, section 1.1, 1.2 ,1.3	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	None	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The loose equipment is aligned with Datasheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Datasheets and complete with all accessories
5	Equipment tag labels check (where applicable)	Tag Label provided and compliant to Reference Documents (where applicable). Ex label installed and compliant to the Ex standard (where applicable)
6	Certification check	Atex, Sil, Calibration check (where applicable), Test certificate (where applicable) in compliance and unexpired

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
Dräger Polytron® 8200 CAT DQ d S 4-20/HART®					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.5 Gas Detector Hydrogen Power on

Test Name / Test N°	**GAS DETECTOR HYDROGEN POWER ON**	
Test Scope	The scope of this test to power on 20% devices	
ITP Reference	1724000821-QC-ITP-00002, section 1.4	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	24VDC	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Power on	Device display on

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
Dräger Polytron® 8200 CAT					
Dräger Polytron® 8200 CAT					
Dräger Polytron® 8200 CAT					
Dräger Polytron® 8200 CAT					
Dräger Polytron® 8200 CAT					
Dräger Polytron® 8200 CAT					
Dräger Polytron® 8200 CAT					
Dräger Polytron® 8200 CAT					
Dräger Polytron® 8200 CAT					
Dräger Polytron® 8200 CAT					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.6 Gas Detector Ultrasonic Check and Power on

Test Name / Test N°	**GAS DETECTOR ULTRASONIC CHECK AND POWER ON**	
Test Scope	The scope of this test to perform visual and mechanical check of 1 device for each device type and to power on 20% devices	
ITP Reference	1724000821-QC-ITP-00002, section 1.1, 1.2, 1.3, 1.4	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	24VDC	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The loose equipment is aligned with Datasheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Datasheets and complete with all accessories
5	Equipment tag labels check (where applicable)	Tag Label provided and compliant to Reference Documents (where applicable). Ex label installed and compliant to the Ex standard (where applicable)
6	Certification check	Atex, Sil, Calibration check (where applicable), Test certificate (where applicable) in compliance and unexpired
7	Power on	Device display on

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
Dräger Polytron® 8900 UGLD d S 4-20/HART® Relay					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.7 Gas Detector Oxygen Check and Power on

Test Name / Test N°	**GAS DETECTOR OXYGEN CHECK AND POWER ON**	
Test Scope	The scope of this test to perform visual and mechanical check of 1 device for each device type and to power on 20% devices	
ITP Reference	1724000821-QC-ITP-00002, tion 1.1, 1.2, 1.3, 1.4	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	24VDC	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The loose equipment is aligned with Datasheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Datasheets and complete with all accessories
5	Equipment tag labels check (where applicable)	Tag Label provided and compliant to Reference Documents (where applicable). Ex label installed and compliant to the Ex standard (where applicable)
6	Certification check	Atex, Sil, Calibration check (where applicable), Test certificate (where applicable) in compliance and unexpired
7	Power on	Device display on

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
Dräger Polytron 8100 EC d S 4-20/Hart					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.8 Push Button Manual Fire Alarm Check

Test Name / Test N°	**PUSH BUTTON MANUAL FIRE ALARM CHECK**	
Test Scope	The scope of this test to perform visual and mechanical check of 1 device for each device type	
ITP Reference	1724000821-QC-ITP-00002, section 1.1, 1.2 ,1.3	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	None	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The loose equipment is aligned with Datasheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Datasheets and complete with all accessories
5	Equipment tag labels check (where applicable)	Tag Label provided and compliant to Reference Documents (where applicable). Ex label installed and compliant to the Ex standard (where applicable)
6	Certification check	Atex, Sil, Calibration check (where applicable), Test certificate (where applicable) in compliance and unexpired

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
MEDC SM87PBL MANUAL FIRE ALARM					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.9 Push Button To SIS Check

Test Name / Test N°	**PUSH BUTTON TO SIS CHECK**	
Test Scope	The scope of this test to perform visual and mechanical check of 1 device for each device type	
ITP Reference	1724000821-QC-ITP-00002, section 1.1, 1.2 ,1.3	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	None	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The loose equipment is aligned with Datasheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Datasheets and complete with all accessories
5	Equipment tag labels check (where applicable)	Tag Label provided and compliant to Reference Documents (where applicable). Ex label installed and compliant to the Ex standard (where applicable)
6	Certification check	Atex, Sil, Calibration check (where applicable), Test certificate (where applicable) in compliance and unexpired

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
MEDC SM87PBL PUSH BUTTON TO SIS					

Remarks:

		Name and Surname	Signature
Test Attendants	SI		
	CTR		
	CPY		

5.1.10 Gas Flash Beacon (Amber) Check

Test Name / Test N°	**GAS FLASH BEACON (AMBER) CHECK**	
Test Scope	The scope of this test to perform visual and mechanical check of 1 device for each device type	
ITP Reference	1724000821-QC-ITP-00002, section 1.1, 1.2 ,1.3	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	None	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The loose equipment is aligned with Datasheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Datasheets and complete with all accessories
5	Equipment tag labels check (where applicable)	Tag Label provided and compliant to Reference Documents (where applicable). Ex label installed and compliant to the Ex standard (where applicable)
6	Certification check	Atex, Sil, Calibration check (where applicable), Test certificate (where applicable) in compliance and unexpired

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
GAS FLASH BEACON (AMBER) MEDC SM87LEDS					

Remarks:

		Name and Surname	Signature
Test Attendants	SI		
	CTR		
	CPY		

5.1.11 Fire Flash Beacon (Red) Check

Test Name / Test N°	**FIRE FLASH BEACON (RED) CHECK**	
Test Scope	The scope of this test to perform visual and mechanical check of 1 device for each device type	
ITP Reference	1724000821-QC-ITP-00002, section 1.1, 1.2 ,1.3	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	None	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The loose equipment is aligned with Datasheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Datasheets and complete with all accessories
5	Equipment tag labels check (where applicable)	Tag Label provided and compliant to Reference Documents (where applicable). Ex label installed and compliant to the Ex standard (where applicable)
6	Certification check	Atex, Sil, Calibration check (where applicable), Test certificate (where applicable) in compliance and unexpired

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
FIRE FLASH BEACON (RED) MEDC SM87LEDS					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.12 Sounder Check

Test Name / Test N°	**FIRE FLASH BEACON (RED) CHECK**	
Test Scope	The scope of this test to perform visual and mechanical check of 1 device for each device type	
ITP Reference	1724000821-QC-ITP-00002, section 1.1, 1.2 ,1.3	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	None	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The loose equipment is aligned with Datasheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Datasheets and complete with all accessories
5	Equipment tag labels check (where applicable)	Tag Label provided and compliant to Reference Documents (where applicable). Ex label installed and compliant to the Ex standard (where applicable)
6	Certification check	Atex, Sil, Calibration check (where applicable), Test certificate (where applicable) in compliance and unexpired

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
SOUNDER MEDC DB3B					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.13 Push Button DPDT Contact

Test Name / Test N°	**PUSH BUTTON DPDT CONTACT**	
Test Scope	The scope of this test to perform visual and mechanical check of 1 device for each device type	
ITP Reference	1724000821-QC-ITP-00002, section 1.1, 1.2 ,1.3	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS 1724000821-IN-DA-00003 - GENERAL ARRANGEMENTS including DETAIL DRAWINGS, NAME PLATE DRAWINGS, WIRING DIAGRAM	
Equipment Involved	Loose Material as listed in Data sheet	
Requirements	None	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The loose equipment is aligned with Datasheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Datasheets and complete with all accessories
5	Equipment tag labels check (where applicable)	Tag Label provided and compliant to Reference Documents (where applicable). Ex label installed and compliant to the Ex standard (where applicable)
6	Certification check	Atex, Sil, Calibration check (where applicable), Test certificate (where applicable) in compliance and unexpired

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
PUSH BUTTON DPDT CONTACT EATON GHG 432					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.14 Commissioning Spare Parts Check

Test Name / Test N°	**COMMISSIONING SPARE PARTS CHECK**	
Test Scope	The scope of this test to perform visual and mechanical check of Commissioning Spare parts	
ITP Reference	1724000821-QC-ITP-00002, section 2.1	
Reference Documents	1724000821-COM-LIS-00011 - SPARE PART INDEX REGISTER 1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS	
Equipment Involved	Material as listed in the Commissioning Spare list	
Requirements	None	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The spare parts equipment are aligned with System Data sheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Commissioning Spare Parts list.

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
Ref. to Commissioning Spare Part List					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		

5.1.15 Special Tools Check

Test Name / Test N°	**SPECIAL TOOLS CHECK**	
Test Scope	The scope of this test to perform visual and mechanical check of special tools	
ITP Reference	1724000821-QC-ITP-00002, section 2.2	
Reference Documents	1724000821-IN-DS-00004 - INSTRUMENT DATA SHEETS	
Equipment Involved	Material as listed in Data sheet	
Requirements	None	
Prerequisites	None	
Notes		

Procedure

Step	Description	Acceptance Criteria
1	Dimensional check	Visual inspection to verify compliance with reference Drawing
2	Mechanical damage check	No mechanical damage are presents
3	Equipment quality check	The spare parts equipment are aligned with System Data sheet
4	Equipment quantity check	The quantity of devices supplied are in compliance with Data sheet

Equipment involved	Pass	Fail	Not Applicable	Punch Code	Date
Ref. to Data sheets					

Remarks:

Test Attendants		Name and Surname	Signature
	SI		
	CTR		
	CPY		