Base Load Power Hub (BLPH)

LIGHTING FIXTURE

EQUIPMENT TECHNICAL DATA SHEET

Document Number: 1724001290-IN-DS-00004

Document Class: 2

02	09/09/2024	Accepted for Construction (AFC)	M. MENEGUZZI	S. ZIANI	A. DELLA RICCA
01	20/08/2024	Issue for Review (IFR)	M. MENEGUZZI	S. ZIANI	A. DELLA RICCA
00	22/07/2024	Issue for Review (IFR)	M. MENEGUZZI	S. ZIANI	A. DELLA RICCA
Rev.	Date	Description	Prepared	Reviewed	Approved

CORTEM GROUP
To be sure to be safe.

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Revision / Change Log

Rev.	Description
00	Issue for Review (IFR)
01	Issue for Review (IFR)
02	Accepted for Construction (AFC)

HOLDS LIST

No.	Description
1.	
2.	
3.	
4.	

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Row	Data Sheet for Lighting Fixtures				Rev.
1	General				
2		Required	Manufacturer Proposal	Comments	
3	Manufacturer	by Vendor	Cortem SpA		
4	Order Status	for Purchase	CONFIRMED		
5	General - Electrical Input Data				
6	System Voltage	230 V ac	CONFIRMED		
7	Voltage Variation (Steady State)	±5 %	CONFIRMED		
8	Rated Frequency	50Hz	CONFIRMED		
9	Frequency Variation (Steady State)	±2 %	CONFIRMED		
10	Number of Phases	1ph + neutral TN-S system	CONFIRMED		
11	Installation conditions				
12	Ambient Temperature	-8.4°C to +25°C	CONFIRMED		
13	Relative humidity (%)	Maximum 95 %	CONFIRMED		
14	Atmosphere	Marine Offshore-fixed	CONFIRMED		
15	Altitude > 1000 m (m)	not more than 1000 m	CONFIRMED		

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Row	Data Sheet for Lighting Fixtures & Accessories				Rev.
1	**42W LED Linear Luminaire-Normal Lighting Fixture**				
2	Item	Required	Manufacturer Proposal	Comments	
3	Model Number	by vendor	LIFEX-MN-0645-BB		
4	Serial Number	by vendor	T24/86772		
5	Quantity	57 Nos.	57 Nos.	Note-1	
6	Location / Module	Lower deck/Below lower deck	NOTED		
7	**LED Lamp**				
8	Nominal power	42 watts	45		
9	No. of linear	1	CONFIRMED		
10	Luminous flux	5810 lm	6200 lm		
11	Colour Temperature	5000 K	CONFIRMED		
12	**Protection**				
13	Hazardous Area Certification (Ex)	Safe area	CONFIRMED		
14	Degree of Protection (IP)	IP 56	IP66		
15	ATEX certified	Not required	suitable for zone 2		
16	**Material**				
17	Body	GRP/Aluminium alloy	Aluminium alloy		
18	Refelector	GRP/Aluminium	Aluminium alloy		
19	Diffuser	Polycarbonate/temperate glass	temperate glass		
20	**Cable Entry**				
21	No. of cable entry	4 Nos.	CONFIRMED		
22	Size	M20	CONFIRMED		
23	**Emergency Battery Pack**				
24	Requirement	Not required	CONFIRMED		
25	Battery type	Not required	CONFIRMED		
26	Autonomy	Not required	CONFIRMED		
27	Emergency luminous flux	Not required	CONFIRMED		
28	**Mechanical parameters**				
29	Dimension	by vendor	600x105x120 mm		
30	Weight	by vendor	2,5		

Note:

1 Quantity included 10% of contingency with roundup value.

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Row	Data Sheet for Lighting Fixtures & Accessories				Rev.
1	**45W LED Linear Luminaire-Emergency Lighting Fixture**				
2	Item	Required	Manufacturer Proposal	Comments	
3	Model Number	by vendor	LIFEX-ME-1260N-BB		
4	Serial Number	by vendor	24/86773		
5	Quantity	78 Nos.	78 Nos.	Note-1	
6	Location / Module	Lower deck/Upper deck/ Below lower deck	NOTED		
7	**LED Lamp**				
8	Nominal power	45 watts	60		
9	No. of linear	1	CONFIRMED		
10	Luminous flux	5810 lm	6200 lm		
11	Colour Temperature	5000 K	5000		
12	**Protection**				
13	Hazardous Area Certification (Ex)	Zone 1 Gas Group IIC (or) IIB + H2, T1	Confirmed zone 1 IIC T6		
14	Degree of Protection (IP)	IP 56	IP66		
15	ATEX certified	Classification EX db	CONFIRMED (Ex db eb)		
16	**Material**				
17	Body	GRP/Aluminium alloy	Aluminium alloy		
18	Refelector	GRP/Aluminium	Aluminium alloy		
19	Diffuser	Polycarbonate/temperate glass	temperate glass		
20	**Cable Entry**				
21	No. of cable entry	4 Nos.	Confirmed		
22	Size	M20	Confirmed		
23	**Emergency Battery Pack**				
24	Requirement	Required	CONFIRMED		
25	Battery type	NiCd internal battery, gas-tight	Ni-MH		
26	Autonomy	180 mins.	CONFIRMED		
27	Emergency luminous flux	1168 lm	1168		
28	**Mechanical parameters**				
29	Dimension	by vendor	1200x105x120		
30	Weight	by vendor	4,5		

Note:

1 Quantity included 10% of contingency with roundup value.

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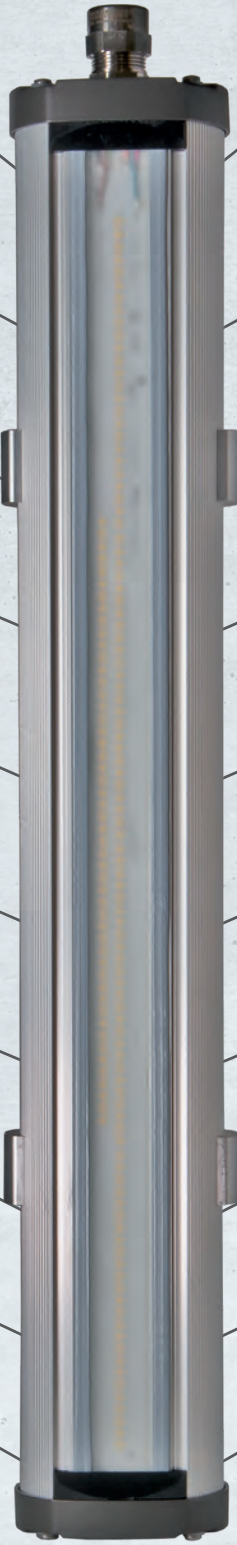
Lifex®, the shift in the new lighting paradigm

CORTEM® GROUP

To be sure to be safe.

We have reduced the size, lowered the weight, shortened the time of installation, removed any type of risk, reduced any maintenance intervention, avoided 70% of the components and saved tons of CO_2.

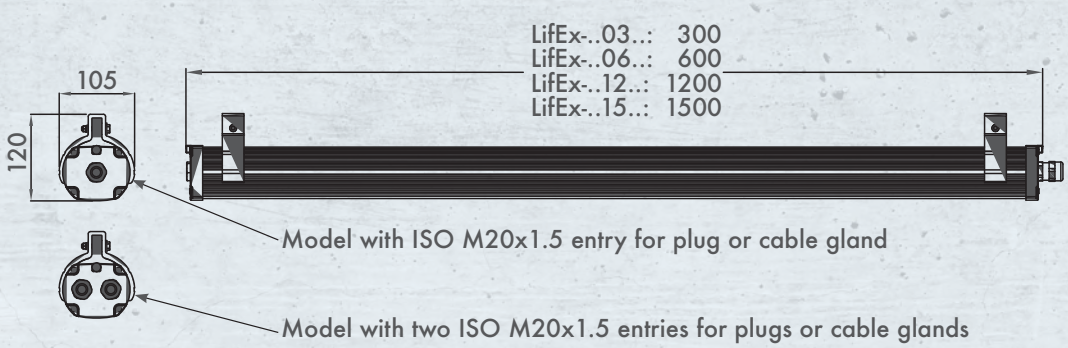
Lifex®



We have also eliminated the possibility of improving it.

Reduced dimensions and weight

Careful product architecture oriented towards achieving optimal total life cycle management (circular economy) and maximising working life made it possible to create a compact, lightweight and easy to install lighting fixture that is also extremely robust and durable.



Luminous flux up to 15,500 lumen

From the perspective of electronics and lighting design, the use of LED technology and high-power LED strips allowed us to reach a light output of 15,500 lm with high efficiency and guaranteed durability through time.

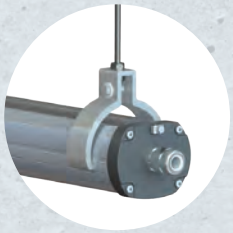
Retrofit brackets

An innovative brackets system, without C/C distance constraints, allows simple installation, easy retrofitting, and the facility to rotate the lighting fixture from -30° to +30°.



from -30° to +30°


LifEx pole mounting


LifEx ceiling mounting (six versions in catalogue)

Comprehensively tested

LifEx has passed, together with all regulatory tests, extra mechanical and electrical tests in addition to those specified in the certificate such as vibration test, IK09 and IPX9, photobiological risk exemption.

Application sectors and zones

On-shore plants

Off-shore plants

Chemical and petrochemical plants

Agri-food plants

Wastewater treatment plants

Naval installations

Low temperatures

MECHANICAL CHARACTERISTICS

Body:	housing and heads in aluminium alloy resistant to atmospheric corrosion and marine environments
Diffuser:	Glass, resistant to thermal shock, impact and UV radiation
Gaskets:	acid and hydrocarbon resistant silicone
Internal frame:	aluminium extrusion
Bolts and screws:	stainless steel
Entries:	Max. 4 inlets Ø25.5. Standard version with no.2 Ø20.5 holes complete with no.1 NAV20IB cable gland and no.1 PLG1IB plug. For other versions, caps and cable glands are on request
Assembly:	mounting brackets for M8 holes adjustable from 0° to 30°

ELECTRICAL CHARACTERISTICS

Power unit:	electronic
Rated voltage:	100÷277 Vac/dc (refer to selection tables for details)
Rated frequency:	50/60 Hz
Connection:	directly to terminal board L, N, Pe 4 mm2 max section terminal board with jumpers suitable for through-wiring both from single side and from two opposite sides
Emergency unit:	electronic inverter 110/227 Vac 50/60 Hz, 110 -270 Vdc. Ni / Mh batteries, 1.8 Ah or 3 Ah, 6V
Wiring:	high-temperature resistant semi-rigid cables

CERTIFICATION DATA

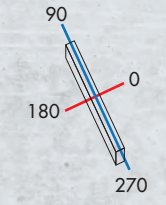
Classification:	group II Category 2 G D
Installation:	Zone 1, 2, 21, 22 (LifEx-ME) zone 2, 21, 22 (LifEx-MN) zone 21, 22 (LifEx-MT)
Marking:	CE 0722 Ex II 2GD - Ex db eb mb IIC T.. Gb - Ex tb IIIC T..°C Db IP66 LifEx-ME CE Ex II 3GD Ex ec IIC T.. Gc - Ex tb IIIC T..°C Db IP66 LifEx-MN CE 0722 Ex II 2D - Ex tb IIIC T..°C Db IP66 LifEx-MT
Certified:	ATEX Ex IEC IECEx EAC
Ambient Temp.:	-60°C for versions without battery, -20°C/-60°C for versions with battery
Protection degree:	Certified IP66

PHOTOMETRIC CHARACTERISTICS

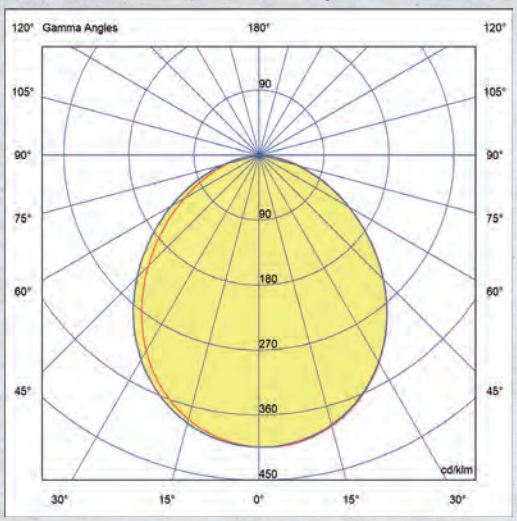
Multichip LED:	Mid power
Viewing angle:	120°
Colour temperature:	5000 K
CRI:	> 80
Instant Restrike:	SI
L80:	> 54000 hours

Flux 6390 lm
Maximum 404.41 cd/klm
Position C=0.00 G=2.00
Efficiency: 100.00%
Date: 11-05-2022
Asymmetrical

1211mm x 114mm



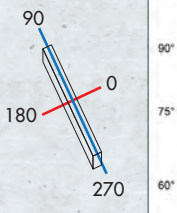
C Halfplanes
180.0 — 0.0
270.0 — 90.0



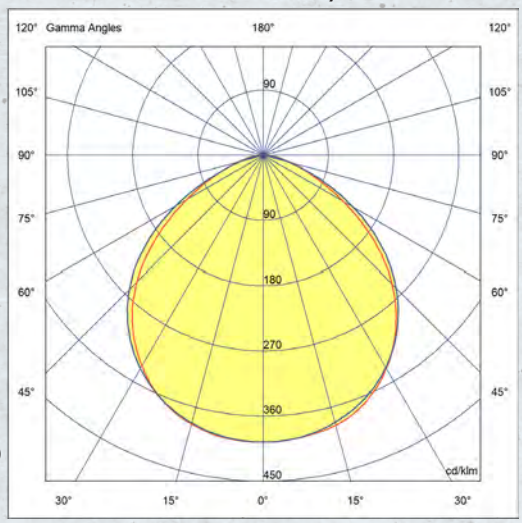
Photometric curve LifEx-MT-1290

Flux 14544.33 lm
Maximum 395.91 cd/klm
Position C=170.00 G=1.00
Efficiency: 100.00%
Date: 12-12-2019
Asymmetrical

1170mm x 95mm



C Halfplanes
180.0 — 0.0
270.0 — 90.0



Photometric curve LifEx-MT-12120

PLG series plugs are used for close-up unused entries. They feature a hexagonal recessed-type head to ensure the opening with proper tools only.

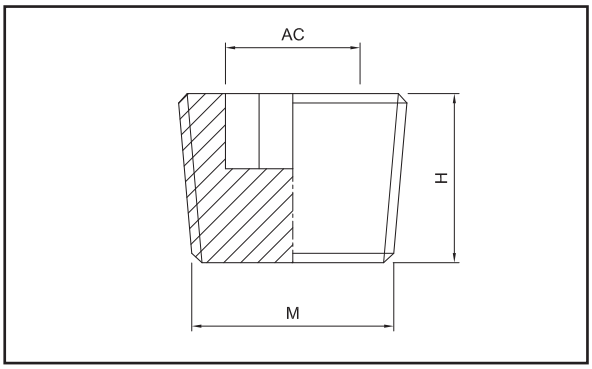


Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 02 ATEX 049X	
	IECEx IECEx CES 10.0001X	For IEC Ex and others certifications data can be downloaded at www.elfit.com
Standards:	CENELEC EN 60079-0: 2012+A11: 2013, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-7: 2006-07, IEC60079-31: 2008 Directive RoHS 2011/65/UE	
Degree of protection:	IP66/67	

Operating temperature:

Close-up plugs	Material	Ambient temperature
PLG...	Galvanised steel **(G)**	-20°C +80°C
PLG...	Nickel-plated brass **(B)**, Aluminium alloy **(A)**	-40°C +150°C
PLG...	Stainless steel **(S)**	-60°C +150°C

Certificates are available on www.elfit.com



SELECTION TABLE FOR PLUGS WITH STANDARD CONICAL THREAD

Code	Thread M	Dimensions in mm		Material	Weight
		AC	H		Kg
PLG02NG	1/4" NPT	8	23	Galvanised steel	0,014
PLG01NG	3/8" NPT	8	14	Galvanised steel	0,024
PLG1NG	1/2" NPT	13	18	Galvanised steel	0,034
PLG2NG	3/4" NPT	17	18	Galvanised steel	0,054
PLG3NG	1" NPT	19	24	Galvanised steel	0,124
PLG4NA	1 ¼" NPT	24	24	Aluminium	0,061
PLG5NA	1 ½" NPT	35	24	Aluminium	0,063
PLG6NA	2" NPT	36	24	Aluminium	0,109
PLG7NA	2 ½" NPT	50	30	Aluminium	0,169
PLG8NA	3" NPT	50	30	Aluminium	0,242
PLG10NA	4" NPT	85	30	Aluminium	0,489
PLG12NA	5" NPT	102	32	Aluminium	0,735
PLG14NA	6" NPT	119	32	Aluminium	1,00
PLG02G	1/4" ISO 7/1	8	23	Galvanised steel	0,014
PLG01G	3/8" ISO 7/1	8	14	Galvanised steel	0,024
PLG1G	1/2" ISO 7/1	13	18	Galvanised steel	0,034
PLG2G	3/4" ISO 7/1	17	18	Galvanised steel	0,054
PLG3G	1" ISO 7/1	19	24	Galvanised steel	0,124
PLG4A	1 ¼" ISO 7/1	24	24	Aluminium	0,061
PLG5A	1 ½" ISO 7/1	35	24	Aluminium	0,063
PLG6A	2" ISO 7/1	36	24	Aluminium	0,109
PLG7A	2 ½" ISO 7/1	50	30	Aluminium	0,169
PLG8A	3" ISO 7/1	50	30	Aluminium	0,242
PLG10A	4" ISO 7/1	85	30	Aluminium	0,489
PLG12A	5" ISO 7/1	102	32	Aluminium	0,735
PLG14A	6" ISO 7/1	119	32	Aluminium	1,00

Order code example

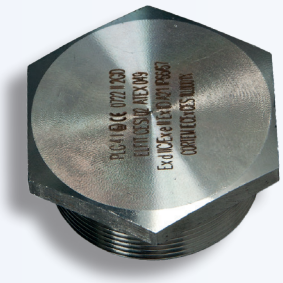
PLG	10	N	B
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *Available also in stainless steel (example code PLG3**S**)*
- *Available also in nickel plated brass (example code PLG1**B**)*
- *Available also in aluminium (example code PLG2**A**)*
- *Available also in galvanized steel (example code PLG6**G**)*

PLG male close-up plugs with cylindrical thread

PLG series plugs are used for close-up unused entries. They feature a hexagonal external head to ensure the opening with proper tools only.



Classification: 2014/34/UE	Group II	Category 2GD
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)
Marking:	CE 0722 Ex II 2 GD Ex db IIC Gb Ex tb IIIC Db IP66/67	
	CE 0722 Ex II 2 GD Ex eb IIC Gb Ex tb IIIC Db IP66/67	
Certification:	ATEX CESI 02 ATEX 049X	
	IECEx IECEx CES 10.0001X	For IEC Ex and others certifications data can be downloaded at www.elfit.com
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-31: 2009 and EUROPEAN DIRECTIVE 2014/34/UE IEC60079-0: 2011, IEC60079-1: 2007-04, IEC60079-7: 2006-07, IEC60079-31: 2008 Directive RoHS 2011/65/UE	
Degree of protection:	IP66/67	

Operating temperature:

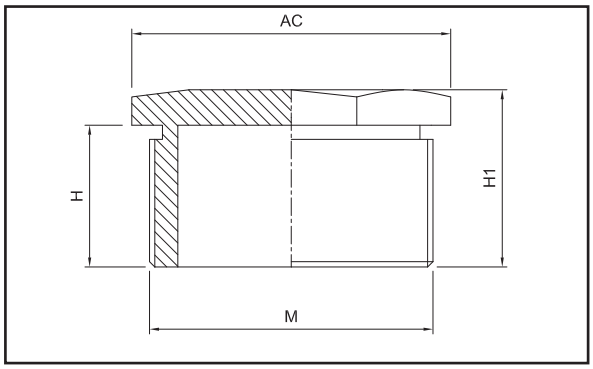
Close-up plugs	Material	Gaskets	Ambient temperature
PLG...	Galvanised steel **(G)**	Silicone	-20°C +80°C
PLG...	Nickel-plated brass **(B)**, Aluminium alloy **(A)**	Silicone	-40°C +150°C
PLG...	Stainless steel **(S)**	Silicone	-60°C +150°C

Certificates are available on www.elfit.com

ACCESSORIES OPON REQUEST

Lock nuts *	Thread ISO228	Code	Material	ISO metric thread	Code	Material
	1/4"	**DL02G**	Galvanised steel	M12x1,5	DL02IB	Nickel-plated brass
	3/8"	**DL01G**	Galvanised steel	M16x1,5	DL01IB	Nickel-plated brass
	1/2"	**DL1G**	Galvanised steel	M20x1,5	DL1IB	Nickel-plated brass
	3/4"	**DL2G**	Galvanised steel	M25x1,5	DL2IB	Nickel-plated brass
	1"	**DL3G**	Galvanised steel	M32x1,5	DL3IB	Nickel-plated brass
	1 ¼"	**DL4G**	Galvanised steel	M40x1,5	DL4IB	Nickel-plated brass
	1 ½"	**DL5A**	Aluminium	M50x1,5	DL5IB	Nickel-plated brass
	2"	**DL6A**	Aluminium	M63x1,5	DL6IB	Nickel-plated brass
	2 ½"	**DL7A**	Aluminium	M75x1,5	DL7IB	Nickel-plated brass
	3"	**DL8A**	Aluminium	M90x1,5	DL8IB	Nickel-plated brass
	3 ½"	**DL9A**	Aluminium	-	-	-
	4"	**DL10A**	Aluminium	M100x1,5	DL10IB	Nickel-plated brass

* For different material contact the sales office.



SELECTION TABLE FOR PLUGS WITH CYLINDRICAL THREAD

Code	Thread M	Dimensions in mm			Material	Weight
		AC	H	H1		Kg
PLG02C...	1/4" UNI ISO 228/1	17	16	21	On request	0,014
PLG01C...	3/8" UNI ISO 228/1	22	16	21		0,024
PLG1C...	1/2" UNI ISO 228/1	25	20	25		0,034
PLG2C...	3/4" UNI ISO 228/1	32	20	25		0,054
PLG3C...	1" UNI ISO 228/1	38	24	29		0,124
PLG4C...	1 ¼" UNI ISO 228/1	45	24	29		0,061
PLG5C...	1 ½" UNI ISO 228/1	55	24	29		0,063
PLG6C...	2" UNI ISO 228/1	65	24	29		0,109
PLG7C...	2 ½" UNI ISO 228/1	85	24	29		0,169
PLG8C...	3" UNI ISO 228/1	100	24	29		0,242
PLG10C...	4" UNI ISO 228/1	120	24	29		0,489
PLG01I...	M16x1,5	20	16	21	On request	0,014
PLG1I...	M20x1,5	24	16	21		0,024
PLG2I...	M25x1,5	30	16	21		0,034
PLG3I...	M32x1,5	36	16	21		0,054
PLG4I...	M40x1,5	46	16	21		0,124
PLG5I...	M50x1,5	55	16	21		0,061
PLG6I...	M63x1,5	70	18	23		0,063
PLG7I...	M75x1,5	85	18	23		0,109
PLG8I...	M90x1,5	95	18	23		0,169
PLG10I...	M100x1,5	105	18	23		0,242

Order code example

PLG	8	I	G
MODEL	SIZE	THREAD	MATERIAL

TECHNICAL NOTES:

- *Available also in stainless steel (example code PLG3I**S**)*
- *Available also in nickel plated brass (example code PLG1I**B**)*
- *Available also in aluminium (example code PLG2I**A**)*
- *Available also in galvanized steel (example code PLG2I**G**)*
- *Available also with PG thread (example code PLG5**P**A)*

THREAD CODIFICATION

Pg DIN 40430

2	3	4	5	6	7	8	9	10
PG9	PG11	PG13,5	PG16	PG21	PG29	PG36	PG42	PG48