

Standard



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Summary

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[M series](#)

[Application leaflet Security Defence](#)

Number of contacts Low Voltage	12
Wire Size/AWG	26 - 22
Gender	Standard
Socket / Receptacle	Socket / Receptacle - Free
Locking system	Ratchet
Jacket cable outside diameter [mm]	6.50 - 13.00 mm
Size	2M
Suggested matching part	FMN.2M.312.XLCT
Series	M - Rugged Ratchet coupling

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/phn-2m-312-xlmt.html

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Technical details

Electrical Configuration

Number of contacts Low Voltage	12
Contact Termination Low voltage	Crimp
R (max) - electrical contact resistance	6.1 mOhm
Insert configuration value	2M.312 - 12 Low Voltage
Insulator	L: PEEK
Rated current	7 A
Test voltage contact-contact	1.7 kV DC
Test voltage contact-shell	1.6 kV DC
Contact retention	22 N
Max. Conductor	0.34 mm ² (AWG 22)
Min. Conductor	0.14 mm ² (AWG 26)
Bucket Dia.	0.8 mm (0.031in)
Contact Dia.	0.7 mm (0.028in)
Wire Size/AWG	26 - 22
Gender	Standard

Form & Material

Shell style / Model id	PH - Free receptacle with arctic grip and mold stop
Socket / Receptacle	Free
Housing material	Aluminium (nickel plated [SAE AMS QQ N 290], anthracite color) shell and nut, other pieces bronze/brass
Locking system	Ratchet
Keying	N: 3 keys (beta=165, gamma=30, plug: male contacts, receptacle: female contacts)
Colour	Grey
Weight	12.76 g

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Environment

Technical domain	Motorsport, Security and Defence, Transportation, Aerospace and UAV
Environmental sealing (IP rating)	IP68
Endurance	3000 mating cycles
Temperature range	-20°C / +200°C (max. temperature valid for short periods of use.)
EMI Shielding EIA 364-66A	>= 80 dB (1 GHz), >=70 dB (3 GHz), >= 58 dB (6 GHz), >= 40 dB (10 GHz)
Gunfire vibration	25 Hz - 2000 Hz, 3 axis (Apache helicopter)
Humidity (max)	21 days at 95%
Lighting strike EIA 364-76	10K amps - 6 times
Shock Resistance	300 g [3 ms]
Thermal shock	5 cycles: -65°C to +150°C
Vibration-Random	37.8 g rms - 3 axes, 4 hr amb [50 Hz - 2000 Hz]
Vibration-Sine	30 g, 3 axes, 12 hr [10 Hz - 2000 Hz]
Salt Spray Corrosion	max. 48 hr

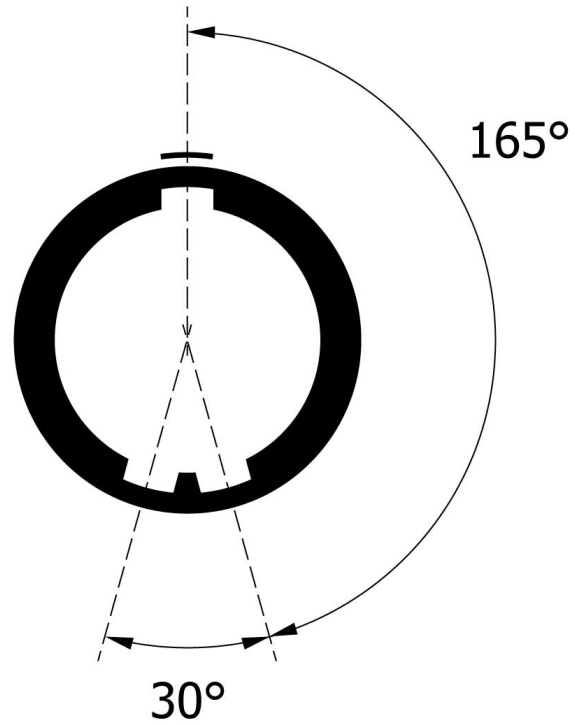
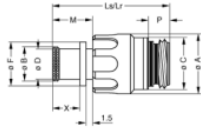
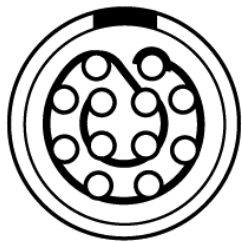
Cable fixation

Cable termination protection	For overmolding
Fixation type	Mold stop (overmolding)
Jacket cable outside diameter [mm]	6.50 - 13.00 mm

Drawings

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Dimensions

	A	B	C	D	F	Ls	Lr	M	P	X
mm.	18.9	14	17.2	13	15.5	29	29	10.1	5.3	7.1
in.	0.74	0.55	0.68	0.51	0.61	1.14	1.14	0.4	0.21	0.28

Recommended By Lemo

Contacts

Replacement contact [EGN.0M.655.ZZM](#)

Caps

Compatible cap [BGF.2M.200.XAZ](#)

Cap 2 [BGF.2M.200.XAZ](#)

Tools

Positionner [DCE.91.070.3MVM](#)

Extraction tool [DCC.07.04B.LAG](#)

Insertion tool [DCV.07.05M.LA](#)

Crimp tool [DPC.91.701.V](#)

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