



Summary

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Low Voltage	3
Wire Size/AWG	20 - 16
Gender	Standard
Plug	Plug - Straight
Locking system	Ratchet
Jacket cable outside diameter [mm]	4.85 - 9.70 mm
Size	1M
Matching parts	PMN.1M.303.XLM
Series	M - Rugged Ratchet coupling

Technical details

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fmn-1m-303-xlc.html

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Electrical Configuration

Contact Termination Low voltage	Crimp
R (max)	3.6 mOhm
Insert configuration value	1M.303 - 3 Low Voltage
Insulator	L: PEEK
Rated current	15.5 Amps
Contact retention	40 N
Contact Type	Crimp
Max. Conductor	1 mm ² (AWG 18)
Min. Conductor	0.5 mm ² (AWG 20)
Bucket Dia.	1.4 mm (0.055in)
Contact Dia.	1.3 mm (0.051in)
Low Voltage	3
Wire Size/AWG	20 - 16
Gender	Standard

Form & Material

Shell style / Model id	FM - Straight plug, key (N) or keys (P, R, S, T, U, V, W and X) with knurled grip
Plug	Straight
Housing material	Aluminium (nickel plated [SAE AMS QQ N 290], anthracite color) shell and nut, other pieces bronze/brass
Locking system	Ratchet
Keying	3 keys (beta=165, gamma=30, plug: male contacts, receptacle: female contacts)
Weight	6.54 g

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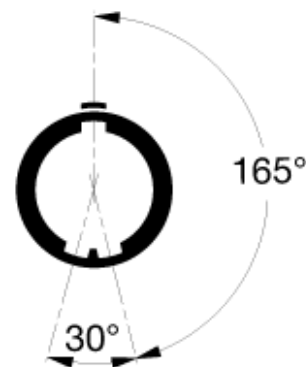
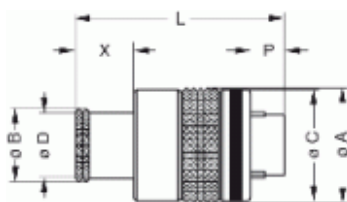
Environment

Technical domain	Motorsport, Security and Defence, Transportation, Aerospace and UAV
Environmental protection (IP rating)	IP68
Minimal temperature	-20°C / +200°C
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	Heatshrink
Fixation type	Cable collet
Jacket cable outside diameter [mm]	4.85 - 9.70 mm

Drawings



Dimensions

	A	B	C	D	LS	Lr	P	X
mm.	14.6	10.5	14.2	9.7	24.1	24.1	3.9	6.7
in.	0.57	0.41	0.56	0.38	0.95	0.95	0.15	0.26

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Recommended By Lemo

Accessories










Replacement contact [FGN.0M.565.ZZC](#)

Tools

Positionner [DCE.91.130.5MVC](#)

Extraction tool [DCF.93.131.4LT](#)

Cables

Cable PartNumber	Material	Colour	Cable image
CMN.03.T18.055PGZE		grey	
CMN.03.T18.055PNZE			
CMN.03.T18.055QGZE	TPR (medical)	Grey	
CMN.03.T20.049PGZE		grey	
CMN.03.T20.049PNZE			
230500	PVC	Grey	
230750	PVC	Grey	
3220	PVC	Black	
330150	PVC	Grey	

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