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Summary

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Number of contacts Low Voltage	3
Wire Size/AWG	20 - 16
Gender	Reverse Gender
Plug	Plug - Straight
Locking system	Ratchet
Jacket cable outside diameter [mm]	4.85 - 9.70 mm
Size	1M
Series	M - Rugged Ratchet coupling

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

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Technical details

Electrical Configuration

Number of contacts Low Voltage	3
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 A
Contact retention	40 N
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)
Wire Size/AWG	20 - 16
Gender	Reverse Gender

Form & Material

Shell style / Model id	FG - Straight plug with arctic 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	S: 3 keys (beta=155, gamma=50, plug: female contacts, receptacle: male contacts)
Colour	Grey
Weight	7.4 g

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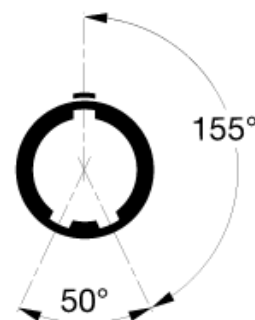
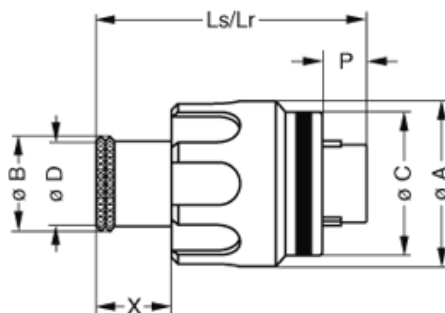
Environment

Technical domain	Motorsport, Security and Defence, Transportation, Aerospace and UAV
Environmental sealing (IP rating)	IP68
Endurance	3000 mating cycles
Temperature range	-55°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	Heatshrink
Fixation type	Heatshrink
Jacket cable outside diameter [mm]	4.85 - 9.70 mm

Drawings



Dimensions

	A	B	C	D	Ls	Lr	P	X
mm.	15.9	10.5	14.2	9.7	24.1	24.1	3.9	6.7
in.	0.63	0.41	0.56	0.38	0.95	0.95	0.15	0.26

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Recommended By Lemo

Accessories

Replacement contact	EGN.0M.665.ZZM
Compatible cap	BGF.1M.100.XAV

Tools

Positionner	DCE.91.130.5MVM
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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