

Standard



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Summary

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[Customer Drawing](#)

Number of contacts Low Voltage	7
Protocol	USB 2.0 (480Mb/s)
Wire Size/AWG	26 - 22
Gender	Standard
Plug	Plug - Straight
Locking system	Ratchet
Jacket cable outside diameter [mm]	4.85 - 9.70 mm
Size	1M
Suggested matching part	EGN.1M.307.XLM
Series	M - Rugged Ratchet coupling

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fgn-1m-307-xlcc60.html

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Technical details

Electrical Configuration

Number of contacts Low Voltage	7
Contact Termination Low voltage	Crimp
R (max)	6.1 mOhm
Insert configuration value	1M.307 - 7 Low Voltage
Insulator	L: PEEK
Rated current	7 A
Test voltage (kV rms) Contact-contact	1.45
Test voltage (kV rms) Contact-shell	1.2
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)
Protocol	USB 2.0 (480Mb/s)
Wire Size/AWG	26 - 22
Gender	Standard

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	N: 3 keys (beta=165, gamma=30, plug: male contacts, receptacle: female contacts)
Colour	Grey
Weight	49.96 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	Standard back nut (no additional protection)
Fixation type	Heatshrink
Jacket cable outside diameter [mm]	4.85 - 9.70 mm

Recommended By Lemo

Accessories

Replacement contact	FGN.0M.555.ZZC
Compatible cap	BGF.1M.100.XAV

Tools

Positionner	DCE.91.070.5MVC
Extraction tool	DCC.07.04B.LAG
Crimp tool	DPC.91.701.V

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