

Standard



Image for illustrative purpose only

Summary

[Request a quote](#)

[M series](#)

[See video assembly instructions](#)

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	PMN.1M.307.XLMT
Series	M - Rugged Ratchet coupling

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

LEMO products and services are provided "as is". LEMO makes no warranties or representations with regard to LEMO product & services or use of them, express, implied or statutory, including for accuracy, completeness, or security. The user is fully responsible for his products and applications using LEMO components.

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
Footprint IPC Class3 compatibility	No
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	FM - Straight plug, key (N) or keys (P, R, S, T, U, V, W and X) with knurled grip and mold stop
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	7.43 g

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

LEMO products and services are provided "as is". LEMO makes no warranties or representations with regard to LEMO product & services or use of them, express, implied or statutory, including for accuracy, completeness, or security. The user is fully responsible for his products and applications using LEMO components.

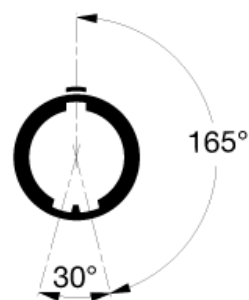
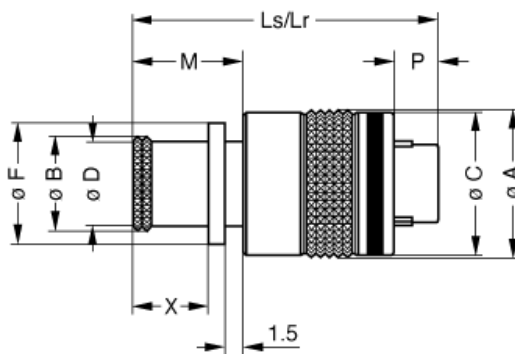
Environment

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	For overmolding
Fixation type	Mold stop (overmolding)
Jacket cable outside diameter [mm]	4.85 - 9.70 mm

Drawings



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

LEMO products and services are provided "as is". LEMO makes no warranties or representations with regard to LEMO product & services or use of them, express, implied or statutory, including for accuracy, completeness, or security. The user is fully responsible for his products and applications using LEMO components.

Dimensions

	A	B	C	D	F	Ls	Lr	M	P	X
mm.	14.6	10.5	14.2	9.7	12.4	27.1	27.1	9.7	3.9	6.7
in.	0.57	0.41	0.56	0.38	0.49	1.07	1.07	0.38	0.15	0.26

Recommended By Lemo

Accessories

Replacement contact	FGN.0M.555.ZZC
---------------------	--------------------------------

Compatible cap	BMF.1M.100.XAV
----------------	--------------------------------

Tools

Positionner	DCE.91.070.5MVC
-------------	---------------------------------

Extraction tool	DCC.07.04B.LAG
-----------------	--------------------------------

Crimp tool	DPC.91.701.V
------------	------------------------------

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

LEMO products and services are provided "as is". LEMO makes no warranties or representations with regard to LEMO product & services or use of them, express, implied or statutory, including for accuracy, completeness, or security. The user is fully responsible for his products and applications using LEMO components.