



Image for illustrative purpose only

Summary

[Request a quote](#)

[Catalog](#)

Number of contacts Low Voltage	3
Wire Size/AWG	20 - 16
Gender	Standard
Socket / Receptacle	Socket / Receptacle - Fixed Panel Rear Mounted
Locking system	Ratchet
Jacket cable outside diameter [mm]	4.85 - 9.70 mm
Size	1M
Suggested matching part	FMN.1M.303.XLC
Series	M - Rugged Ratchet coupling

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/pen-1m-303-xlmt.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

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
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)
Number of contacts Low Voltage	3
Wire Size/AWG	20 - 16
Gender	Standard

Form & Material

Shell style / Model id	PE - Fixed receptacle, nut fixing and mold stop
Socket / Receptacle	Fixed Panel Rear Mounted
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)
Colour	Grey
Weight	8.4 g

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/pen-1m-303-xlmt.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.

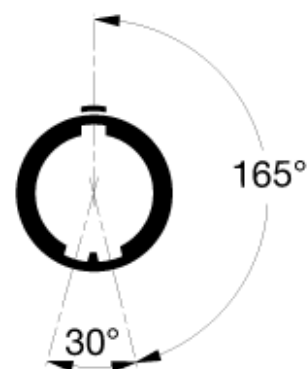
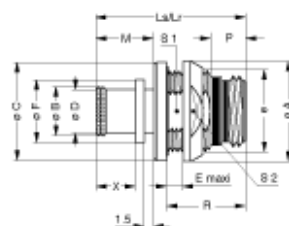
Environment

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

Drawings



Dimensions

	A	B	C	D	E	e	Ls	Lr	M	P	R	S1	S2
mm.	18	10.5	17.8	9.7	5	M14x1.00	25.6	25.6	9.7	5.3	13.8	12.5	16
in.	0.71	0.41	0.7	0.38	0.2		1.01	1.01	0.38	0.21	0.54	0.49	0.63

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/pen-1m-303-xlmt.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.

Recommended By Lemo

Accessories

Replacement contact	EGN.0M.665.ZZM
---------------------	--------------------------------










Tools

Positionner	DCE.91.130.5MVM
-------------	---------------------------------

Extraction tool	DCF.93.131.4LT
-----------------	--------------------------------

Spanner wrench	DCM.65.160.AZ
----------------	-------------------------------

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	

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/pen-1m-303-xlmt.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.