



Image for illustrative purpose only

## Summary

[Request a quote](#)

[Catalog](#)

[See video assembly instructions](#)

Number of contacts Low Voltage	30
Wire Size/AWG	26 - 22
Gender	Standard
Plug	Plug - Straight
Locking system	Ratchet
Jacket cable outside diameter [mm]	7.50 - 15.00 mm
Size	3M
Suggested matching part	<a href="#">PEN.3M.330.XLMM</a>
Series	M - Rugged Ratchet coupling

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/fmn-3m-330-xlcm.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fmn-3m-330-xlcm.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	30
Contact Termination Low voltage	Crimp
R (max)	6.1 mOhm
Insert configuration value	3M.330 - 30 Low Voltage
Insulator	L: PEEK
Rated current	3.5 A
Test voltage (kV rms) Contact-contact	1.10
Test voltage (kV rms) Contact-shell	1.00
Contact retention	22 N
Max. Conductor	0.34 mm <sup>2</sup> (AWG 22)
Min. Conductor	0.14 mm <sup>2</sup> (AWG 26)
Bucket Dia.	0.8 mm (0.031in)
Contact Dia.	0.7 mm (0.028in)
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 MIL-DTL-38999L shell thread
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	15.52 g

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/fmn-3m-330-xlcm.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fmn-3m-330-xlcm.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.

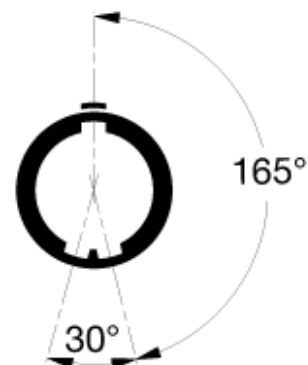
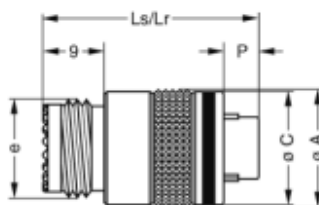
## Environment

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	$\geq 80$ dB (1 GHz), $\geq 70$ dB (3 GHz), $\geq 58$ dB (6 GHz), $\geq 40$ 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 backshell MIL-DTL-38999M
Fixation type	MIL-DTL-38999M
Jacket cable outside diameter [mm]	7.50 - 15.00 mm

## Drawings



[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/fmn-3m-330-xlcm.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fmn-3m-330-xlcm.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	C	e	Ls	Lr	P
mm.	19.6	19.2	M18x1.0	26.4	26.4	3.9
in.	0.77	0.76		1.04	1.04	0.15

## Recommended By Lemo

### Accessories

Replacement contact	<a href="#">FGN.0M.555.ZZC</a>
---------------------	--------------------------------

Compatible cap	<a href="#">BMF.3M.100.XAV</a>
----------------	--------------------------------

### Tools

Positionner	<a href="#">DCE.91.070.5MVC</a>
-------------	---------------------------------

Extraction tool	<a href="#">DCF.93.070.4LT</a>
-----------------	--------------------------------

Crimp tool	<a href="#">DPC.91.701.V</a>
------------	------------------------------

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/fmn-3m-330-xlcm.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fmn-3m-330-xlcm.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.