

Special

*Image for illustrative purpose only*

Summary

[Request a quote](#)[M series](#)[Application leaflet Security Defence](#)

Number of contacts Low Voltage	4
Wire Size/AWG	20 - 16
Gender	Standard
Socket / Receptacle	Socket / Receptacle - Fixed Panel Front Mounted
Locking system	Ratchet
Panel Drill Hole	M17
Jacket cable outside diameter [mm]	6.50 - 13.00 mm
Size	2M
Suggested matching part	FGN.2M.304.XLC
Series	M - Rugged Ratchet coupling

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/ecn-2m-304-xlm.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	4
Contact Termination Low voltage	Crimp
R (max)	3.6 mOhm
Insert configuration value	2M.304 - 4 Low Voltage
Insulator	L: PEEK
Rated current	15.5 A
Test voltage contact-contact	2.22 kV DC
Test voltage contact-shell	1.9 kV DC
Contact retention	40 N
Max. Conductor	1.43 mm ² (AWG 16)
Min. Conductor	0.62 mm ² (AWG 20)
Bucket Dia.	1.6 mm (0.055in)
Contact Dia.	1.3 mm (0.051in)
Wire Size/AWG	20 - 16
Gender	Standard

Form & Material

Shell style / Model id	EC - Fixed receptacle with two nuts
Socket / Receptacle	Fixed Panel Front Mounted
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	11.35 g
Panel Drill Hole	M17

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/ecn-2m-304-xlm.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.

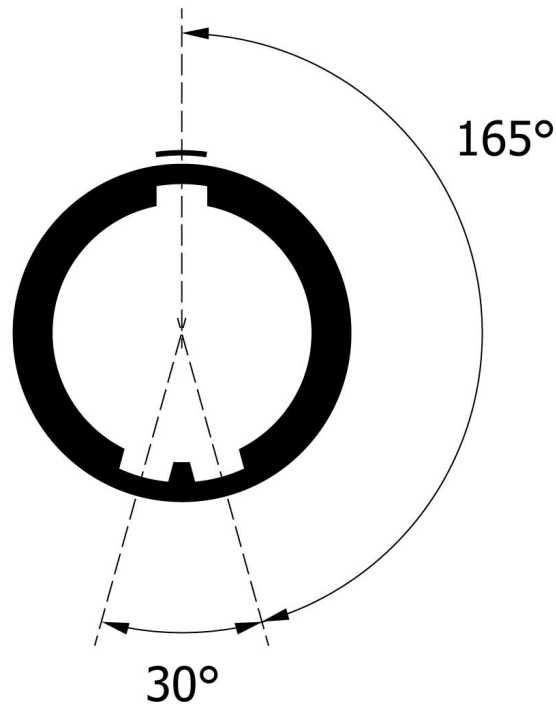
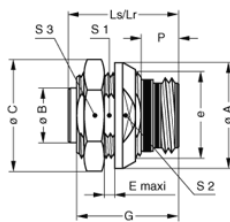
Environment

Technical domain	Motorsport, Security and Defence, Transportation, Aerospace and UAV
Environmental sealing (IP rating)	IP50
Endurance	3000 mating cycles
Temperature range	-20°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	
Jacket cable outside diameter [mm]	6.50 - 13.00 mm

Drawings

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/ecn-2m-304-xlm.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	E	e	G	Ls	Lr	P	S1	S2	S3
mm.	21	8.95	21.5	4	M17x1.00	16.8	18.3	18.3	5.3	15.5	18	19
in.	0.83	0.35	0.85	0.16		0.66	0.72	0.72	0.21	0.61	0.71	0.75

Recommended By Lemo

Contacts

Replacement contact [EGN.0M.665.ZZM](#)

Caps

Compatible cap [BGK.2M.200.XAZ](#)

Cap 2 [BMK.2M.200.XAZ](#)

Tools

Spanner 2 [DCM.65.180.AZ](#)

Positionner [DCE.91.130.5MVM](#)

Extraction tool [DCC.13.15B.LAG](#)

Insertion tool [DCV.13.05M.LA](#)

Crimp tool [DPC.91.701.V](#)

Spanner wrench [DCM.65.180.AZ](#)

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/ecn-2m-304-xlm.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.

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/ecn-2m-304-xlm.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.

Cables

Cable PartNumber	Material	Colour	Cable image
CMN.04.T20.053PGZE		grey	
CMN.04.T20.053PNZE			
CMN.04.T20.053QGZE	TPR (medical)	Grey	
CMN.04.T22.047QGC	TPR	Grey	
CMN.04.T22.048QGZE	TPR (medical)	Grey	
CMN.04.T28.031PGCE	PVC	GREY	
CMN.04.T28.031PGZE		grey	
CMN.04.T28.031PNCE	PVC	Black	
CMN.04.T28.031PNZE			
CMN.04.T28.031QGC	TPR	Grey	
140240	PVC	Black	
140250	PVC	Grey	
240500	PVC	Grey	
240750	PVC	Grey	
340 150	PVC	Grey	
40080	PVC	Black	
40086	PVC	Blue	
40140	PVC	Black	
40240	PTFE	White	
40260	PVC	Black	
4041	PVC	Grey	
4050	PVC	Black	
4080	PVC	Grey	
417920	PVC	Grey	
4220	PVC	Black	
4221	PVC	Black	
4260	PTFE	White	
4280	PVC	Black	
80080	PVC	Grey	
80082	PVC	Red	
80084	PVC	Black	
CTR.75.030.121870G	PVC	Grey	

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/ecn-2m-304-xlm.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.