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## Summary

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[f series](#)

[Customer Drawing](#)

Number of contacts Low Voltage	4
Wire Size/AWG	32 - 28
Gender	Standard
Socket / Receptacle	Socket / Receptacle - Fixed Panel Rear Mounted
Locking system	Push-pull
Jacket cable outside diameter [mm]	2.20 - 6.30 mm
Size	FF
Series	F - Rugged Push-Pull

[https://www.lemo.com/int\\_en/solutions/optima/f-rugged-push-pull/ecn-ff-304-xlm.html](https://www.lemo.com/int_en/solutions/optima/f-rugged-push-pull/ecn-ff-304-xlm.html)

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# Technical details

## Electrical Configuration

Number of contacts Low Voltage	4
Contact Termination Low voltage	Crimp
R (max)	8.7 mOhm
Insulator	L: PEEK (UL 94 / V-0/1.5)
Rated current	2 A
Contact retention	12 N
Max. Conductor	0.09 mm <sup>2</sup> (AWG 28)
Min. Conductor	0.035 mm <sup>2</sup> (AWG 32)
Bucket Dia.	0.45 mm (0.018in)
Contact Dia.	0.5 mm (0.02in)
Wire Size/AWG	32 - 28
Gender	Standard

## Form & Material

Shell style / Model id	ECN - Fixed receptacle with 2 nuts key (N) or key (S), protruding shell (back panel mounting)
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	Push-pull
Keying	3 keys (alpha=42, gamma=30, plug: male contacts, receptacle: female contacts)
Colour	Grey
Weight	3.07 g

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## Environment

Technical domain	Motorsport, Security and Defence
Environmental sealing (IP rating)	IP50
Endurance	1000 mating cycles
Temperature range	-15°C / +200°C (max. temperature valid for short periods of use.)
Climatic Category	15/200/21 (Aluminium shell)
Humidity (max)	<=95% [at 60 deg C /140 F]
Shock Resistance	100 g [ 6 ms]
Vibration	15 g [10 Hz - 2000 Hz]
Salt Spray Corrosion	max. 48 hr

## Cable fixation

Jacket cable outside diameter [mm]	2.20 - 6.30 mm
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# Recommended By Lemo

## Accessories

Replacement contact	<a href="#">EGG.00.654.ZZM</a>
Compatible cap	<a href="#">BRE.FF.200.YAV</a>










## Tools

Spanner 2	<a href="#">DCM.65.088.AZ4</a>
Positionner	<a href="#">DCE.91.050.0VM</a>
Extraction tool	<a href="#">DCC.05.02B.LAG</a>
Crimp tool	<a href="#">DPC.91.701.V</a>

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# Cables

Cable PartNumber	Material	Colour	Cable image
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	
40080	PVC	Black	
40086	PVC	Blue	
4041	PVC	Grey	
4050	PVC	Black	
4080	PVC	Grey	
417920	PVC	Grey	
4280	PVC	Black	
80080	PVC	Grey	
80082	PVC	Red	
80084	PVC	Black	
CTR.75.030.121870G	PVC	Grey	

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