METZ CONNECT

M12 Push-Pull Connectors according to IEC 61076-2-010

Overmolded Cordsets with Internal Locking



Plug in.
Hear it click.
Done.



Overmolded connectors with push-pull locking

With the new M12 Push-Pull connectors in plug configuration with internal locking, compliant with IEC 61076-2-010, METZ CONNECT is expanding its portfolio of industrial connectivity solutions for demanding applications. Designed for use in factory automation, mechanical and plant engineering, intralogistics, and rail and transport technology, among other areas, these new solutions enable fast, tool-free connections while ensuring secure locking.

Efficiency and quality gains

Tool-free Push-Pull technology can significantly reduce assembly and service times. At the same time, the defined locking mechanism minimizes potential assembly errors and supports repeatable connection results. This simplifies installation processes and increases efficiency during commissioning, maintenance and service. The benefits are particularly noticeable in day-to-day operations involving modular system designs, mobile applications or frequent mating cycles.

Overview of key specifications

Parameter	Value
Standard / design	IEC 61076-2-010, Push-Pull internal locking
Railway standards	DIN EN 50155 DIN EN 45545-2
Connection technology	A: 4, 5, 8 D: 4 X: 8
Degree of protection (installed)	IP65, IP67, IP68 (2 m/48 h)
Transmission	Signal, fieldbus, Industrial Ethernet
Ambient temperature	−40 °C to +90 °C
Insulation resistance	≥ 10^8 Ω
Mechanical service life	> 100 mating cycles
Pollution degree	3
Materials	Contacts: Gold-plated metal, Contact carrier: TPU or PA, Grip body: TPU
Standard cable lengths	Connection cable 1 / 2 / 5 m, Interconnecting cable 1 / 2 / 5 m

Reliably connected – even under demanding conditions

M12 Push-Pull connectors from METZ CONNECT are designed for applications that require fast installation, secure locking and robust connectivity.





Factory automation

Sensor/actuator connectivity, high connector density in the control cabinet



Mechanical and plant engineering

Service interfaces, fast setup and changeovers



Intralogistics

Conveyor and sorting systems, modular system sections



Mobile automation

Industrial Ethernet, camera systems, sensor connections (position, pressure and level sensors)



Robotics

Moving axes, vibration, frequent mating cycles

Rail and transport technology

Vehicle cabling in accordance with EN 50155 and EN 45545-2

The METZ difference

The Push-Pull connectors are designed for demanding industrial operating conditions and support protection ratings up to IP67 or IP68. Product qualification includes testing mechanical service life, locking and retention forces, and resistance to vibration, shock and corrosion.

This makes the solutions suitable for demanding applications in automation, transportation, intralogistics and mobile machinery. In addition, Push-Pull technology can be used for both products from the METZ standard portfolio and customer-specific variants and customized cable solutions.

M12 Push-Pull product configurator:

www.metz-connect.com/configurator-m12-push-pull



Bus and rail vehicle product configurator

www.metz-connect.com/configurator-m12-push-pull-bus

Our portfolio

The new connectors will be available in A, D and X codings at series launch, covering applications for signal, fieldbus and Industrial Ethernet communication. A range of cable types is also available, tailored to the requirements of different industries and applications – as in for example, highly flexible applications in mechanical engineering, robust mobile automation or data-intensive Ethernet communication.

Application		Sensor / actuator	Data transmission	Transportation
Shielding	Unshielded	Shielded	Shielded	Shielded
Connector head design				
Coding | Number of poles	A | 4, 5, 8	A | 4, 5, 8	D | 4 X | 8	D | 4 X | 8
Cable types	4 x 0,34 mm² PVC GY	4 x 0,34 mm² PVC GY	PUR Cat.5e Profinet Typ C UL GN	Cat5.e RADOX® 1 x 4 x AWG22 BU Reduced Wire (S4002BU
	5 x 0,34 mm² PVC GY	5 x 0,34 mm² PVC GY	PUR Cat.5e 1 x 4 x AWG26 UL G	Cat.5e BETAtrans® 1 x 4 x AWG22 BU Reduced Wire
	8 x 0,25 mm² PVC GY	8 x 0,25 mm² PVC GY	PUR Cat.5e Profinet robotic UL GN	Cat.5e BETAtrans® 1 x 4 x AWG22 BU Reduced Wire
	4 x 0,34 mm² PUR UL BK	4 x 0,34 mm² PUR UL BK	PUR Cat.7 4 x 2 x AWG26 UL GN	Cat.7 RADOX® 4 x 2 x AWG24
	5 x 0,34 mm² PUR UL BK	5 x 0,34 mm² PUR UL BK	PUR Cat.7 4 x 2 x AWG24 torsion UL GN	Cat.7 RADOX® 4 x 2 x AWG24
	8 x 0,25 mm² PUR UL BK	8 x 0,25 mm² PUR UL BK	PUR Cat.6 4 x 2 x AWG26 drag chain UL GN	Cat.7 BETAtrans® 4 x 2 x AWG26 Reduced Wire VT

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