

GIMOTA M12 connectors

Modern network connectors for trams, buses and trains

Suitable for
railways



Information technology is developing at high-speed and with it the demands of travellers. High-performance internet access up to the gigabit range, real-time travel information, or entertainment systems, to name just a few applications. In order to meet this requirement, modern means of transport need a corresponding network infrastructure. In general, it can be said that the technology in rail vehicles is becoming more and more extensive and complex. The industrially proven M12 connectors have long been established in railway and bus operations for stable networks and their applications.

But the industrial M12 connectors do not meet all the requirements of the railway. The contact connection is susceptible to vibrations. Experience shows that crimped contact connections offer the best results in terms of fatigue strength and vibration. Weight and compactness of the components also play an important role in the application decision. Furthermore, tightness is a key issue, as moisture and condensation cannot be ruled out even indoors.

This is exactly where Gimota's GTM12 and GTB12 connectors come in; based on the industrially proven M12 connector technology and the standards DIN EN 61076-2-101, DIN EN 61076-2-109 and DIN EN 61076-2-011, they are the consistent adaptation to the needs of the railway. Tested according to EN50155, they can be field-assembled, have turned crimp contacts and a reliable shield connection with shield springs. The design is extremely slim ($\varnothing \leq 16 \text{ mm}$) and has a low weight. With IP 67 according to DIN EN 60529 and according to DIN EN 45545-2 R22,R23 / HL1,HL2,HL3, the products offer the required IP and fire protection classes to meet the influences expected in railway technology.



ADVANTAGES

- Suitable for railway applications,
- Resistant housing (metal)
- Small form factor (slim design),
- EN45545 R22,R23 / HL1,HL2,HL3
- Field-attachable, for on-site assembly
- Turned crimp contacts
- Contacts are supplied with the product
- IP67 according to DIN EN 60529



PROPERTIES

- Screw or bayonet lock
- Transmission characteristics up to 10 Gbits/s CAT 6A
- Gold-plated crimp contacts
- Operating temperature -55°C to +85°C
- EMC shielding
- IP67 according to DIN EN 60529
- Cable range from 5.0 - 8.5 mm
- Complies with EN 61076-2-101 / EN 61076-2-109
- Complies with EN 61076-2-011

M12 - Coding A



Cable connector male



Cable connector female

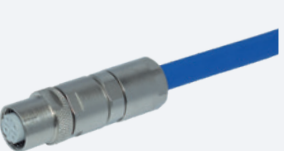


Article number	Type	Coding	Number Pole	Contact type	Cable Ø mm	Wire cross-section
GTM12-A-4-MP	Cable connector male M12	A	4	Pin contact	5.0 - 8.5	0.34 (AWG 22) - 0.75 (AWG 18)
GTM12-A-4-MP-100	Cable connector male M12, 100°	A	4	Pin contact	5.0 - 8.5	0.34 (AWG 22) - 0.75 (AWG 18)
GTM12-A-5-MP	Cable connector male M12	A	5	Pin contact	5.0 - 8.5	0.34 (AWG 22) - 0.75 (AWG 18)
GTM12-A-5-MP-100	Cable connector male M12, 100°	A	5	Pin contact	5.0 - 8.5	0.34 (AWG 22) - 0.75 (AWG 18)
GTM12-A-8-MP	Cable connector male M12	A	8	Pin contact	5.0 - 8.5	0.20 (AWG 24) - 0.34 (AWG 22)
GTM12-A-8-MP-100	Cable connector male M12, 100°	A	8	Pin contact	5.0 - 8.5	0.20 (AWG 24) - 0.34 (AWG 22)
GTM12-A-4-FS	Cable connector female M12	A	4	Socket contact	5.0 - 8.5	0.34 (AWG 22) - 0.75 (AWG 18)
GTM12-A-4-FS-100	Cable connector female M12, 100°	A	4	Socket contact	5.0 - 8.5	0.34 (AWG 22) - 0.75 (AWG 18)
GTM12-A-5-FS	Cable connector female M12	A	5	Socket contact	5.0 - 8.5	0.34 (AWG 22) - 0.75 (AWG 18)
GTM12-A-5-FS-100	Cable connector female M12, 100°	A	5	Socket contact	5.0 - 8.5	0.34 (AWG 22) - 0.75 (AWG 18)

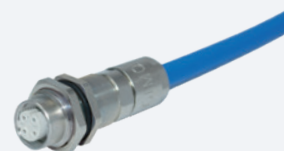
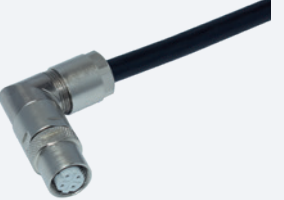
M12 - Coding D



Cable connector male



Cable connector female



Wall mount receptacle



PCB

Article number	Type	Coding	Number Pole	Contact type	Cable Ø mm	Wire cross-section
GTM12-D-4-MP	Cable connector male M12	D	4	Pin contact	5.0 - 8.5	0.50 (AWG 20) - 0.34 (AWG 22)
GTM12-D-4-MP-100	Cable connector male M12, 100°	D	4	Pin contact	5.0 - 8.5	0.50 (AWG 20) - 0.34 (AWG 22)
GTM12-D-4-FS	Cable connector female M12	D	4	Socket contact	5.0 - 8.5	0.50 (AWG 20) - 0.34 (AWG 22)
GTM12-D-4-FS-100	Cable connector female M12, 100°	D	4	Socket contact	5.0 - 8.5	0.50 (AWG 20) - 0.34 (AWG 22)
GTM12-D-4-FS-BR	Wall mount receptacle M12	D	4	Socket contact	5.0 - 8.5	0.50 (AWG 20) - 0.34 (AWG 22)
GTM12-D-4-FS-PCB	PCB M12	D	4	Socket contact		
GTM12-D-4-FS-90-PCB	PCB M12, 90°	D	4	Socket contact		

M12 - Coding X



Cable connector male

Article number	Type	Coding	Number Pole	Contact type	Cable Ø mm	Wire cross-section
GTM12-X-8-MP	Cable connector male M12	X	8	Pin contact	6.0 - 8.5	0.14 (AWG 26) - 0.2 (AWG 24)

GIMOTA M12 connector with bayonet lock

GTB12 connectors are M12 connectors with bayonet quick locking according to the standards DIN EN 61076-2-011. Compared to screw connections, bayonet couplings are much simpler, can be locked more securely and offer the greatest possible vibration resistance due to a positive, defined engagement of the bayonet lock. Like the other M12 connectors from Gimota, they can be mounted in the field, have turned crimp contacts and a reliable shield connection with a shield spring. The design is extremely slim and has a low weight. With IP 67, the products offer the necessary degree of protection to cope with the expected influences in railway technology.

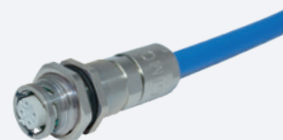
B12 - Coding D



Cable connector male



Cable connector female



Wall mount receptacle



PCB

Article number	Type	Coding	Number Pole	Contact type	Cable Ø mm	Wire cross-section
GTB12-D-4-MP	Cable connector male B12, bayonet	D	4	Pin contact	5.0 - 8.5	0.50 (AWG 20) - 0.34 (AWG 22)
GTB12-D-4-MP-100	Cable connector male B12, bayonet, 100°	D	4	Pin contact	5.0 - 8.5	0.50 (AWG 20) - 0.34 (AWG 22)
GTB12-D-4-FS-BR	Wall mount receptacle B12, bayonet	D	4	Socket contact	5.0 - 8.5	0.50 (AWG 20) - 0.34 (AWG 22)
GTB12-D-4-FS-PCB	PCB B12,	D	4	Socket contact		
GTB12-D-4-FS-90-PCB	PCB B12, 90°	D	4	Socket contact		



For more information, visit our website:
www.gimota.com

