



## M12 INTERCONNECT SYSTEM WITH HYPERBOLOID CONTACT TECHNOLOGY

### M12 Interconnect System for Automation, Control and Instrumentation with Hyperboloid Contact Technology

Within industrial automation, there is a trend to miniaturisation: the design of motors, electrical drives and adjuster units are becoming lighter and smaller. Hypertac has developed its new M12 interconnect system especially for those applications. The new interconnect fits perfectly into sensitive industrial applications working under shock and high vibration impacts, where failure is not an option and expensive proximity switch breakdowns are not acceptable.

#### Following types of M12 interconnect system are available:

- 3way connectors, unshielded/shielded, for wires 0,25 mm<sup>2</sup> to 0,75 mm<sup>2</sup>
- 4way connectors, unshielded/shielded, for wires 0,25 mm<sup>2</sup> to 0,75 mm<sup>2</sup>
- 5way connectors, unshielded/shielded, for wires 0,25 mm<sup>2</sup> to 0,34 mm<sup>2</sup>

Cable qualities are standard PUR and PVC.

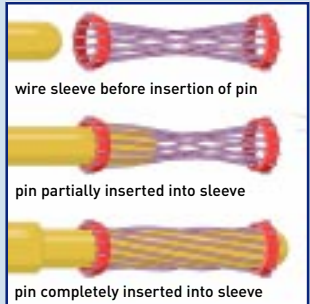
Hypertacs new M12 interconnect system covers various types:

- female and male cable connectors straight or right angled
- female and male receptacles
- extension cords and special types on demand

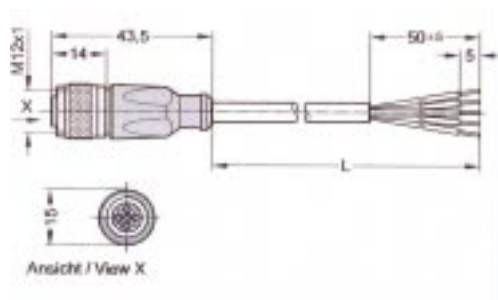
The M12 interconnect system is built on our unique Hypertac hyperboloid contact technology. Hypertac ist an advanced contact design that satisfies performance requirements previously considered impossible.

The shape of the contact sleeve is formed by wires strung at an angle to the socket axis. When the pin is inserted, the wires stretch around it, providing a high number of linear contact paths:

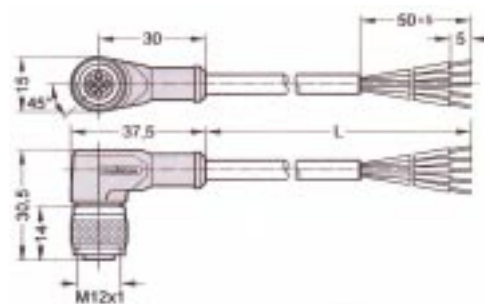
- low insertion and extraction forces
- shock- and vibration proof
- high current and voltage ratings
- low electrical contact resistance
- long life and low rate of wear



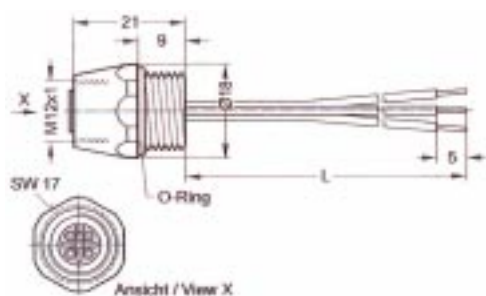
## female cable connector straight



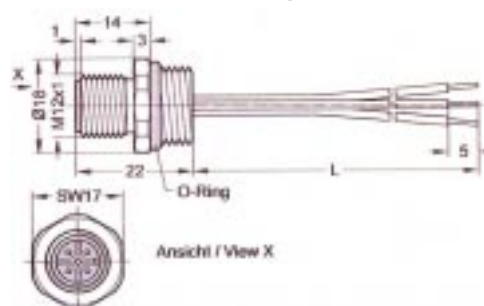
## female cable connector right angled



## female receptacle



## male receptacle



## Technical Characteristics

This series includes more types than printed, please contact factory

	M12 overmoulded connectors without LEDs		M12 overmoulded connectors with LEDs		M12 receptacles	
	3, 4	5	3, 4	5	3, 4	5
No. of ways	3, 4	5	3, 4	5	3, 4	5
Locking system	screw locking		screw locking		screw locking	
Cable termination	crimp		solder		crimp	
Hypertac sockets	copper-zinc-alloy		copper-zinc-alloy		copper-zinc-alloy	
Material pins	CuZn		CuZn		CuZn	
Contact plating	gold plated		gold plated		gold plated	
Material Insert	PUR		PUR		PUR	
Protection class (mated)	IP68 / DIN 0470/1		IP68 / DIN 0470/1		IP68	
Operating temperature	-25°C / +85°C		-25°C / +85°C			
Rated current	6 A	5 A	6 A	5 A	4 A / 40°C	3 A / 40°C
Rated voltage	250 V AC	30 V AC	10 ... 30 V DC	10 ... 30 V DC	250 V AC 300 V DC	30 V AC 36 V DC
Test voltage	1750 V DC	1000 V DC	1750 V DC	1000 V DC		
Contact resistance	> 5*10 <sup>-3</sup> Ohm		> 5*10 <sup>-3</sup> Ohm		> 5*10 <sup>-3</sup> Ohm	
Insulation resistance	> 10 <sup>9</sup> Ohm		> 10 <sup>9</sup> Ohm		> 10 <sup>9</sup> Ohm	
Cable color	DIN EN 5044		DIN EN 5044		DIN EN 5044	

**Hypertac GmbH**

Ulrichsberger Straße 17 · 94469 Deggendorf, Germany · t: +49 991 250 120 · f: +49 991 250 1244

[www.hypertac.com](http://www.hypertac.com)