

INTERBUS Club

Specification M12 Connector for INTERBUS



1. M12 Connector for INTERBUS

1.1 Application:

INTERBUS remote bus with RS485 interface

1.2. Type, Precise Designation:

M12 circular connector, B-encoded,

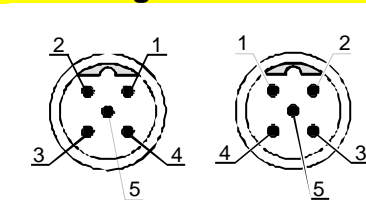
General Parameters	
Number of pins	5-pos.
Interlock	Screwed
Degree of protection	IP 68
Contact pin	CuZn (brass)
Contact bushing	CuSn (bronze)
Contact surface	Gold-plated min. 0.8µm Au
Through resistance	<3 mOhm

1.3. Pin Assignment:

Pin	Signal	Description
1	DO	Data cable from IBS master
2	/DO	Data cable inverted from IBS master
3	DI	Data cable to IBS master
4	/DI	Data cable inverted to IBS master
5	GND	Ground
Threaded joint	Shield	

1.3.1. Device View:

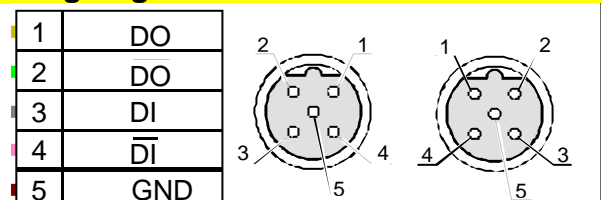
Incoming Interface



Connector front Soldering pin
Pins

DO	1
$\overline{\text{DO}}$	2
DI	3
$\overline{\text{DI}}$	4
GND	5
Shield	Threaded jnt.

Outgoing Interface

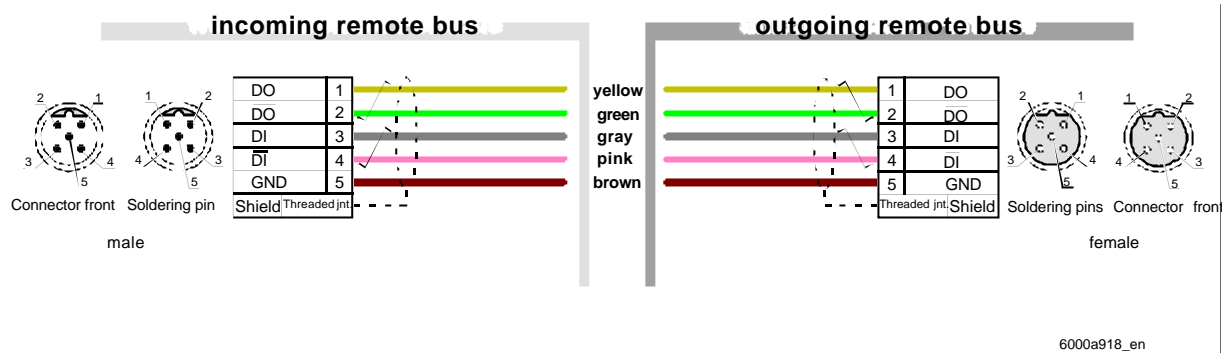


Soldering pins Connector front
Female connectors

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1.3.2. Cable:



The shield must be positioned concentrically onto the threaded joint so that as much of the shield as possible is connected to it.



The new connector does not influence the "INTERBUS data cable" guideline. All requirements concerning the cable still have to be met.

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1.4. Manufacturer's Designation:

E.g.:



franz binder gmbh + co. elektrische bauelemente kg
Rötelstrasse 27
74172 Neckarsulm
www.binder-connector.de

Designation	Order Number
Connector: pin:	09 4445 88 05
Connector: female connector:	09 3446 92 05

Device

Incoming Interface



Pins

Outgoing Interface



Female connector

1.5 Main Advantage:

Up to now the following connectors are admitted for remote bus devices with RS485 interface with a high degree of protection:

- M23 connector - 9-pos.
- RL connector – 5+6-pos.

However, both connectors do not meet the call for further miniaturization for field devices.

M12 connectors need much less space. They have been introduced and are available worldwide.

1.6. Limitations:

Can only be used for protocol chips with automatic interface detection (e.g. IBS SUPI OPC).