WIS transmitter primary (TX)

Features

- **Wireless transmission of power and data**
- **Transmission distance up to 7 mm**
- **2 channels for transfer of switching signals**
- **12 W tramission power**

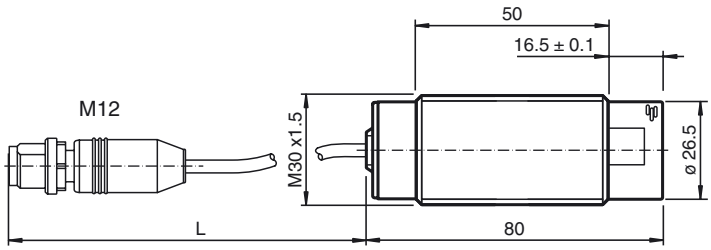
Description

The WIS primary transmitter enables power to be transmitted and switching signals to be received wirelessly in connection with the WIS secondary transmitter. Flexibility in terms of rotation, inclination, angle, and orientation allows for a wide range of applications. A typical application is power and signal transmission for sensors.

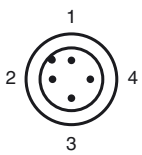
Technical Data

General specifications	
Installation	non-flush
Transfer distance	0 ... 7 mm
Transfer direction	2 signale from secondary side to primary side ; power from primary side to secondary side
Electrical specifications	
Operating voltage U_B	24 V DC ± 10 % , reverse polarity protected
Current consumption	max. 750 mA ; max. inrush current 1400 mA
Undervoltage switching-off	< 20.3 V
Power consumption P_0	1 W without coupling with receicer ; 4 W during coupling with receiver
Output	
Number/Type	2 / digital outputs
Output rated operating current	≤ 250 mA ± 20% (overcurrent protected)
Output voltage	0 ... 24 V
Output type	switched high , PNP
Switching delay	max. 800 µs
Ambient conditions	
Ambient temperature	-20 ... 55 °C (-4 ... 131 °F)
Storage temperature	-20 ... 100 °C (-4 ... 212 °F)
Mechanical specifications	
Connection type	L = 300 mm ± 50 mm Cable with M12 x 1 connector , 4-pin
Housing material	brass, nickel-plated
Sensing face	LCP
Degree of protection	IP67
Installation	screw mounting
Mass	150 g
General information	
Note	The mounting conditions are described in an extra document. See on product page in the internet.
Compliance with standards and directives	
Directive conformity	
EMC Directive 89/336/EEC	acc. to IEC 61000-4-2 , acc. to IEC 61000-4-2
Approvals and certificates	
CCC approval	CCC approval / marking not required for products rated ≤36 V

Dimensions



Pinout



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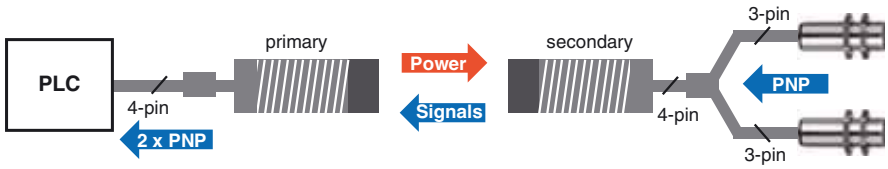
Electrical Connection

M12 connector, 4-pin	
Pin	**Signal**
1	+24 VDC: UB+ for primary transmitter
2	Output 2
3	GND for primary transmitter
4	Output 1

System description

System overview, intended use

The WIS transmitter system always consists of a WIS primary transmitter and a WIS secondary transmitter. The system is used to transmit power and switching signals (PNP). To ensure that the transmitter system operates securely and reliably, only primary and secondary transmitters provided by the manufacturer may be combined. The sensors are connected to the WIS secondary transmitter using additional connection technology such as a Y-splitter V1S-T-V1.



Time delay before availability

Once the voltage supply has been switched on, the WIS transmitter system has a time delay before availability for transferring both power and data.

A distinction is drawn between 2 scenarios:
1) The WIS primary transmitter and WIS secondary transmitter are parallel with one another. The WIS primary transmitter is switched on. It takes 160 ms until the WIS secondary transmitter is ready and has sent current signals to the WIS primary transmitter.

2) The WIS primary transmitter is switched on and the secondary WIS transmitter enters transmitting mode. It takes 25 ms until the WIS secondary transmitter is ready and has sent current signals to the WIS primary transmitter.

The time delay before availability of the connected sensors must still be considered in this instance.

Reverse polarity protection of the voltage supply

If the polarity of the connected voltage supply is incorrect, the WIS primary transmitter switches itself off.

Short-circuit protection for voltage output and output data signals

The WIS transmitter system switches off the voltage and data if the voltage outputs of the WIS secondary transmitter or the data outputs of the WIS primary transmitter overload or short-circuit.

Reverse polarity protection for data inputs

The data inputs of the WIS transmitter system are reverse polarity protected.

Excess temperature protection

The WIS transmitter system switches off in the event of excess temperature.

Foreign object protection

If a metal object becomes present between the WIS primary and secondary transmitters, the WIS transmitter system switches itself off.

Dynamic coupling

The transmitters in the WIS transmitter system are not paired to one another and are freely interchangeable.

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