

Content

1 Purpose.....	2
2 Connector box.....	2
2.1 Connectors.....	3
2.2 LED indication.....	3
3 Pin assignment of connector box.....	4
4 Order information.....	5
5 Technical data.....	6

figure 1: connector box with LED indication



1 Purpose

Connector box for the connection for microwave sensor.

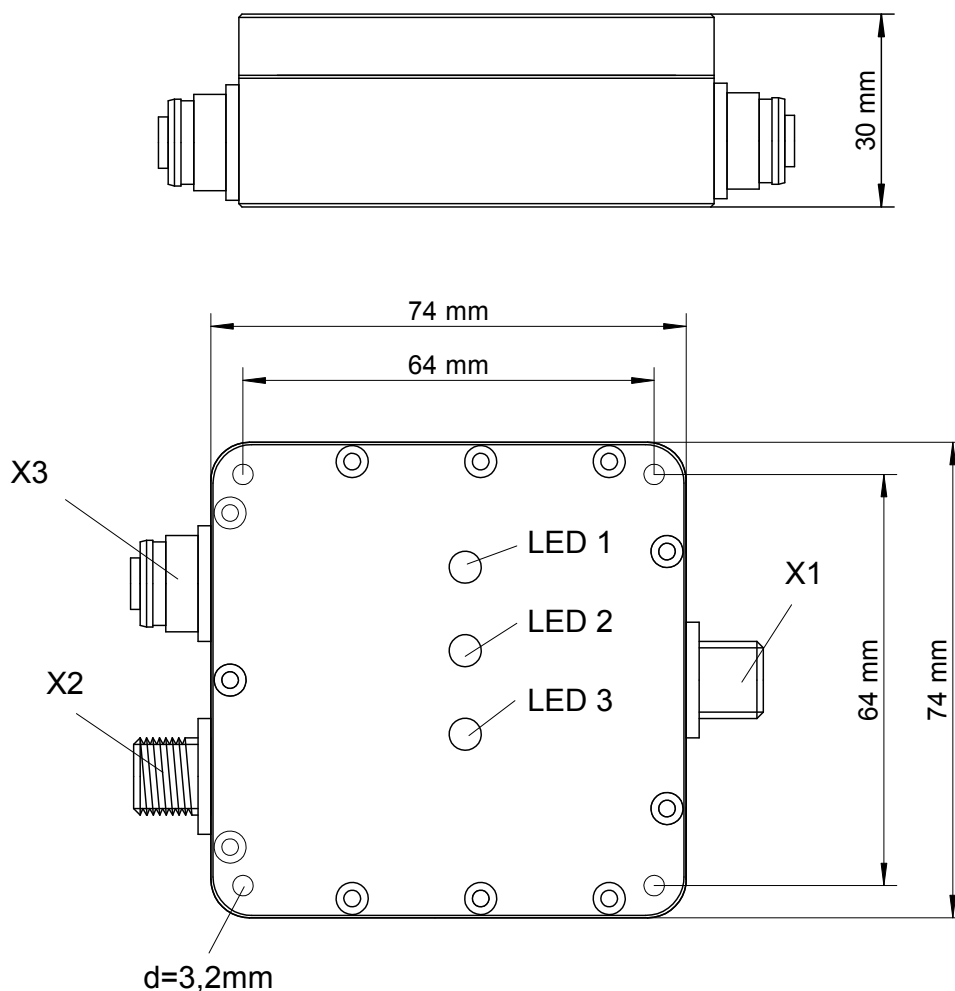
2 Connector box

Connector box for microwave sensor with current loop outputs. The microwave sensor is connected via a 8-pole M12 female connector X1. For the Ethernet connection a 4-pole M12 female connector X3 is used. The supply voltage and the current loop outputs (4-20mA) are connected via a M12 5-pole male connector X2.

For operation without Ethernet the M12 4-pole connector X3 is not used and should be covered with a M12 sealing screw.

There are 4 through holes with $d=3,2\text{mm}$ for the mounting of the connector box.

figure 2: Dimensions of the connector box



2.1 Connectors

figure 3 : M12 4-pole female connector

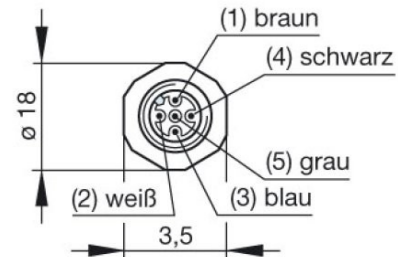
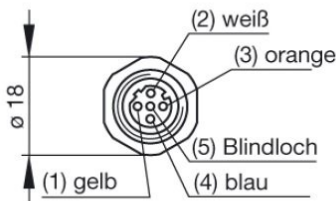
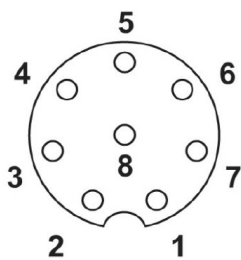


figure 4 : M12 5-pole male connector

figure 5 : M12 8-pole female connector



Polbild Buchse M12, 8-polig, A-kodiert, Ansicht Buchsenseite

2.2 LED indication

With 3 light-emitting diodes a simple indication of the operational status of the microwave sensor is implemented.

LED 1:

The LED is on, when the default supply voltage of 24V is in the range $U_b = 22 \text{ V} \dots 30 \text{ V}$

LED 2:

The LED is on, when the supply current for sensor electronics is in the allowed range.

LED 3:

The LED is on, when the supply current for sensor current loop outputs is in the allowed range.

3 Pin assignment of connector box

table 1 : Pin assignment of Ethernet connector

Pin assignment of Ethernet connector	M12 4-pole connector
Pin 1 (ge)	TX+
Pin 2 (ws)	RX+
Pin 3 (or)	TX-
Pin 4 (bl)	RX-

table 2 : Pin assignment of supply voltage and current loop outputs

Pin assignment supply voltage,current loops	M12 5-pole connector
Pin 1 (br)	Ub +24 VDC
Pin 2 (ws)	I Out 1 U_Sensor (U Tune or WW)
Pin 3 (bl)	Ub 0V (*)
Pin 4 (sw)	I Out 2 temperature (U NTC)
Pin 5 (gr)	Ub 0V (*)

** : The pins 3 and 5 are connected together inside the connector box. The 0V are not connected to the case of the connector box.

The 0V is connected to the case in the microwave sensor.

Pin assignment M12 8-pole connector for the microwave sensor:

The 8-pole connector to the FormingSens is used for the supply voltage for the sensor electronics , the supply voltage for the current loop outputs , the current loop outputs and the Ethernet connection.

For the operation of the FormingSens a connector box must be used.

4 Technical data

table 2 : Technical data

Description		
	Connector box for the microwave sensor - Supply voltage +24V - Ethernet - Current loop outputs	
Supply voltage		
	max. 30 VDC	
Supply current		
	ca. 22 mA bei 24 V	without sensor
	max. 290 mA bei 24 V	with Sensor connected
Inrush current		
	< 1 A	with Sensor connected
Current loop outputs		
	4 ... 20 mA	current loop 1 for u_sensor
	4 ... 20 mA	current loop 2 for temperature
Weight		
	ca. 0,5 kg	
Mounting		
	with 4 through holes d=3,2 mm	
Ingress Protection		
	protection class	IP 67
Temperature range		
	Operation	Sensor body with electronics -25° C ... +75° C Sensor head -25° C ... +110° C

5 Order information

table 1 : Order information connector box

Model nr	description
87152.002.00B	Connector box for microwave sensor Connector box with M12 connectors Connector box for use of current loop outputs 4...20 mA Connector box with LED indication for supply voltage

6 Company address

WORK Microwave GmbH
Rudolf Diesel Ring 2
D-83607 Holzkirchen
www.work-microwave.de