

# Wireless Automation Accessories



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# Wireless Automation

## Accessories

### Technical description

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#### **Please note the following**

##### **Target group**

This description is intended for the use of trained specialists in electrical installation and control and automation engineering, who are familiar with the applicable national standards.

##### **Safety requirements**

The responsible staff must ensure that the application or use of the products described satisfy all the requirements for safety, including all the relevant laws, regulations, guidelines and standards.

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#### **Liability**

The documentation has been prepared with care. The products described are, however, constantly under development. For that reason the documentation is not in every case checked for consistency with performance data, standards or other characteristics, and does not represent an assurance of characteristics in the sense of § 459, Para. 2 of the German Civil Code. In the event that it contains technical or editorial errors, we retain the right to make alterations at any time and without warning.

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### Technical description

#### WSC100-N000

Fixing bracket with M12 feedthrough male/female for WSIX communication module connection via a user cable to the WSIN/WSIF sensor heads.



Fig. 1a: WSC100-N000

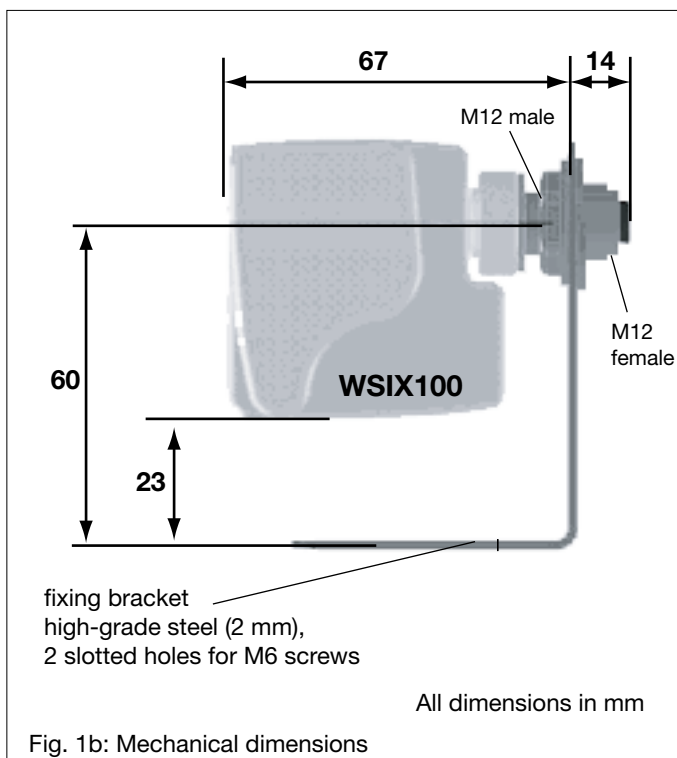


Fig. 1b: Mechanical dimensions

#### Description

Feedthrough Receptacle

M12 male connector for WSIX connection (without pin1), extended thread for fastening to the fixing bracket, 3 pins (2,4,3), pin assignment same as WSIX100

M12 jack 5 pin for user cable (4 pole)



EMC tests were done with a length of 3 m (unshielded cable)

#### Electrical Data

Nominal voltage < 300 V AC

Test voltage 2.0 kV

**Temperature range** -25°C ... + 80°C

#### Mechanical data

Degree of protection IP 67 (only in fully locked position)

fixing bracket thickness: 2 mm, 2 slotted holes for M6 screws  
high-grade steel

Ordering data			
Type	Cable length	Order number	EAN number
WSC100-N000	0,0 m	1SAF 900 100 R1000	4013614386336

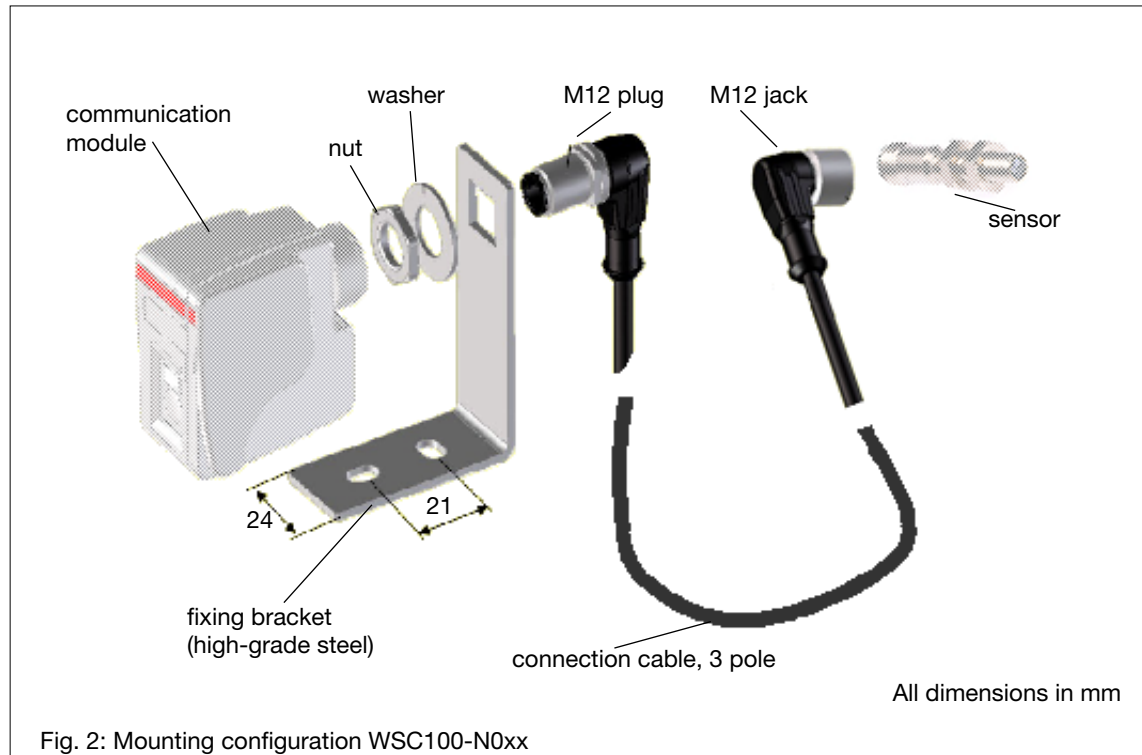
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### Technical description

#### WSC100-N003, WSC100-N006, WSC100-N007, WSC100-N010

Connection cable and holder for communication module WSIX100,  
assembled (0.3 m / 0.6 m / 0.7 m / 1.0 m)



Scope of delivery: Cable, assembled with M12 plug and M12 jack (both are right-angle), a M12 nut, a washer and a fixing bracket (high-grade steel)

#### Description

Connection cable	free of halogen, resistant to ultraviolet rays (only indoor)
conductor	bare litz wire (Cu) 43 x 0.1 mm diameter, extra finely stranded, 0.34 mm <sup>2</sup>
insulation	PP (Polypropylen), core diameter 1.3 mm
sheath	TPU Polyetheruethan, colour: black, external diameter 4.3 mm
M12 right-angle plug	extended thread and square for fastening to the fixing bracket; 3 pins (2,4,3); pin assignment same as WSIX100 (pin 1 missing)
M12 right-angle jack	3 contacts (2,4,3); pin assignment same as WSIX100 (contact 1 sealed)
fixing bracket high-grade steel	thickness: 2 mm, 2 slotted holes for M6 screws, square location hole for the right-angle plug

#### Electrical Data

Nominal voltage	< 300 V AC
Test voltage	2.0 kV

#### Temperature range

moved	-25°C ... + 80°C
as trailing cable	+ 60°C

#### Mechanical data

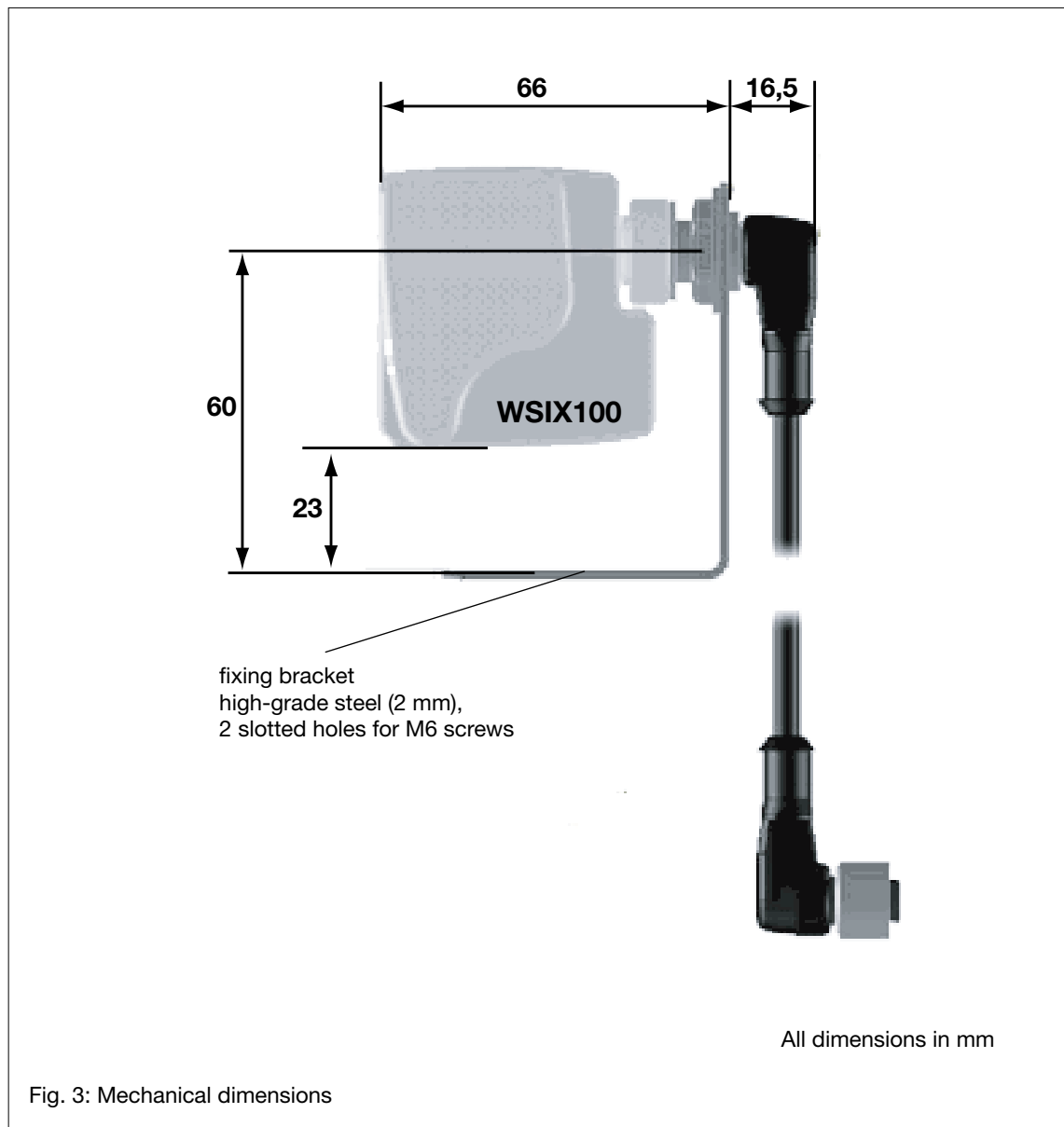
Degree of protection	IP 67 (only in fully locked position) <b>Good resistance to oil and chemicals</b>
Bending radius	
static	25 mm
dynamic	50 mm

## Wireless Automation Accessories

### Technical description

#### WSC100-N003, WSC100-N006, WSC100-N007, WSC100-N010

Connection cable and holder for communication module WSIX100,  
assembled (0.3 m / 0.6 m / 0.7 m / 1.0 m)



Ordering data			
Type	Cable length	Order number	EAN number
WSC100-N003	0,3 m	1SAF 900 100 R1003	4013614379444
WSC100-N006	0,6 m	1SAF 900 100 R1006	4013614379468
WSC100-N007	0.7m	1SAF 900 100 R1007	4013614382864
WSC100-N010	1,0 m	1SAF 900 100 R1010	4013614379505

# Wireless Automation

## Accessories

### Technical description

#### SZC7-5pol-S

7/8"-connector (socket 5 pole) for I/O pad WIOP100, assembling with screw terminals

##### Technical data

**Temperature range** -40°C ... + 90°C

##### Electrical data

Contact resistance  $\leq 5 \text{ m } \Omega$   
 Nominal current at 40°C 9 A  
 Nominal voltage 240 V  
 Rated voltage 250 V  
 Test voltage 2.0 kV eff. / 60s  
 Insulation resistance  $> 10^9 \Omega$   
 Pollution degree 3

##### Mechanical data

**Degree of protection** IP 67  
 (Only in locked position with its proper counterparts.)

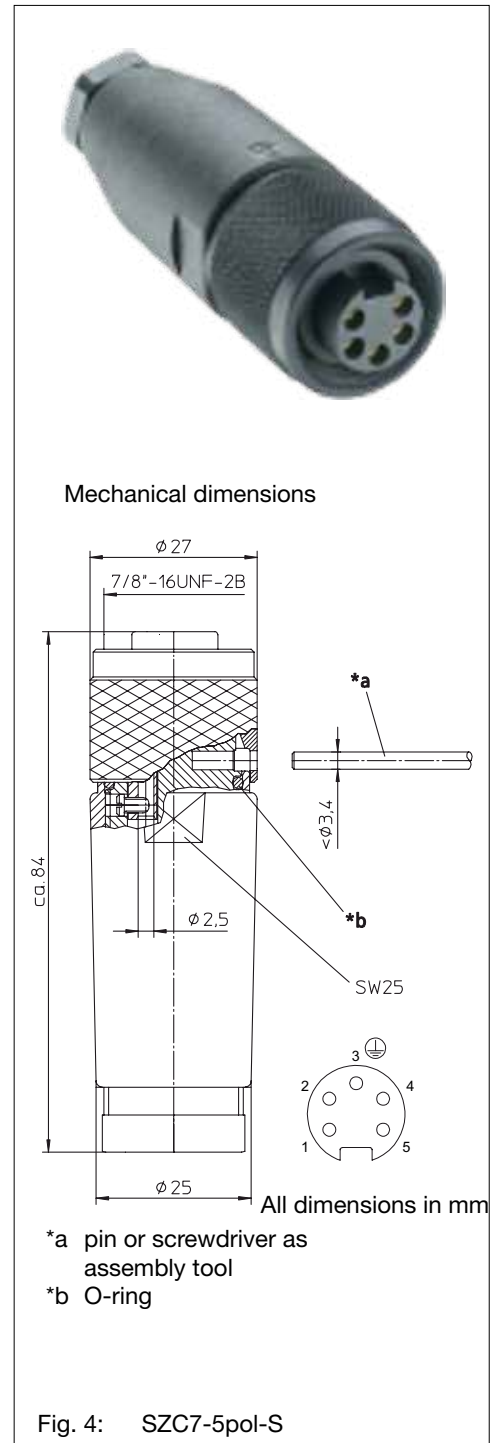
The application of these products in harsh environments should always be checked before use

**Mode of connection** screw terminals  
**Connectable conductor** max. 1.0 mm<sup>2</sup>  
**Screw joint for cable**  $\varnothing 8.0 - 10.0 \text{ mm}^2$

##### Materials

**Housing / Molded body** PA  
**Insert** TPU, self-extinguishing  
**Contact** CuZn, pre-nickel and 0.8  $\mu\text{m}$  gold-plated

**Receptacle shell / knurled screw / nut / hexagon screw / hexagon nut / sleeve** Al anodized  
**O-Ring** NBR



Ordering data		
Type	Order number	EAN number
SZC7-5pol-S	1SAF 938 781 R1000	4013614389436

# Wireless Automation

## Accessories

### Technical description

#### SZC7-5pol-P

7/8"-connector (plug 5 pole) for I/O pad WIOP100, assembling with screw terminals

#### Technical data

**Temperature range** -40°C ... + 90°C

#### Electrical data

Contact resistance	≤ 5 m Ω
Nominal current at 40°C	9 A
Nominal voltage	240 V
Rated voltage	250 V
Test voltage	2.0 kV eff. / 60s
Insulation resistance	> 10 <sup>9</sup> Ω
Pollution degree	3

#### Mechanical data

**Degree of protection** IP 67  
(Only in locked position with its proper counterparts.)

The application of these products in harsh environments should always be checked before use.

Mode of connection	screw terminals
Connectable conductor	max. 1.0 mm <sup>2</sup>
Screw joint for cable	Ø 8.0 - 10.0 mm <sup>2</sup>

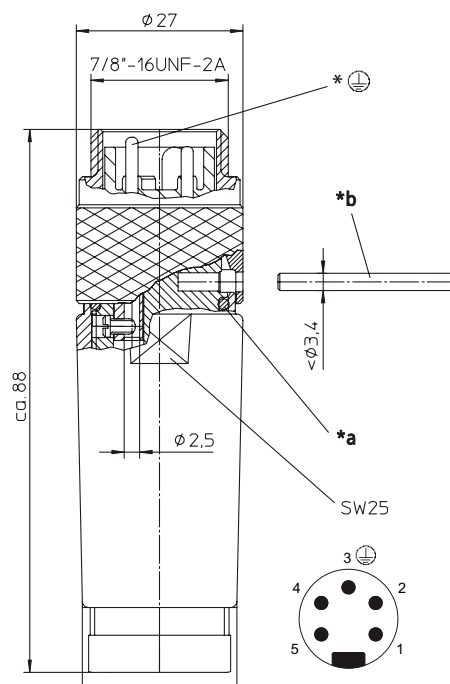
#### Materials

Housing / Molded body	PA
Insert	TPU, self-extinguishing
Contact	CuZn, pre-nickel and 0.8 µm gold-plated

Receptacle shell / knurled screw / nut / hexagon screw / hexagon nut / sleeve	Al anodized
O-Ring	NBR



#### Mechanical dimensions



All dimensions in mm  
\*a pin or screwdriver as assembly tool

\*b O-ring

⊕ contact 1.5 leadingd

Fig. 5: SZC7-5pol-P

Ordering data		
Type	Order number	EAN number
SZC7-5pol-P	1SAF 938 780 R1000	4013614389429



# Wireless Automation

## Accessories

### Technical description

#### SZC1-YU0

Y-connector M12 plug (5 pole) onto 2 x M12 socket (5 pole) for 2 sensors or actuators

#### Technical data

**Temperature range** -25°C ... + 90°C

#### Electrical data

Contact resistance  $\leq 5 \text{ m}\Omega$   
 Nominal current at 40°C 4 A per outlet / 4 A max. total  
 Nominal voltage 60 V  
 Rated voltage 63 V  
 Test voltage 1.5 kV eff. / 60s  
 Insulation resistance  $> 10^9 \Omega$   
 Pollution degree 3

#### Mechanical data

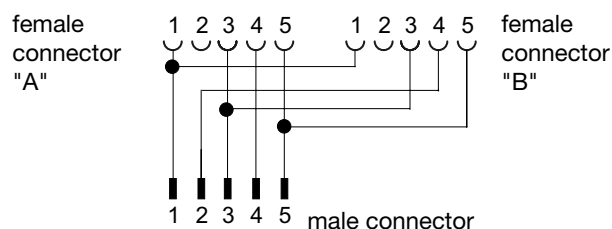
Degree of protection IP 67  
 (Only in locked position with its proper counterparts.)

The application of these products in harsh environments should always be checked before use.

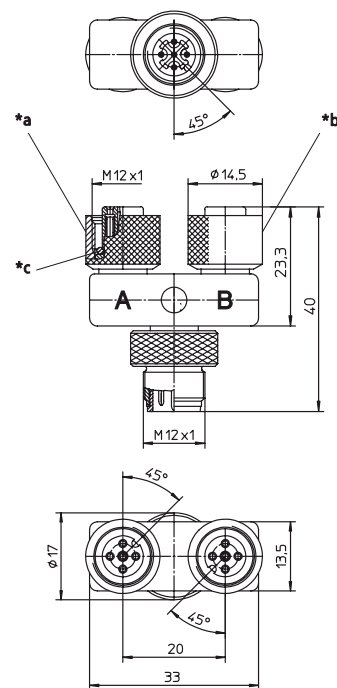
#### Materials

Housing / Molded body TPU, self-extinguishing  
 Insert socket: PA GF, self-extinguishing  
 plug: TPU, self-extinguishing  
 Contact CuZn, pre-nickel and 0,8  $\mu\text{m}$  gold-plated  
 Receptacle shell / knurled screw / nut / hexagon screw / hexagon nut / sleeve CuZn, nickel-plated  
 O-ring FKM

#### Wiring diagram



#### Mechanical dimensions



All dimensions in mm

- \*a coupling nut black
- \*b coupling nut nickel-plated
- \*c O-ring

#### Pin assignment

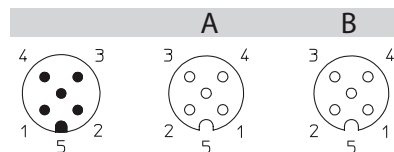


Fig. 6: SZC1-YU0

Ordering data		
Type	Order number	EAN number
SZC1-YU0	1SAF 912 910 R1000	4013614386343

# Wireless Automation

## Accessories

### Technical description

#### SZC8-YU0

Y-connector M12 plug (5 pole) onto 2 x M8 socket (3 pole) for 2 sensors or actuators

#### Technical data

**Temperature range** -25°C ... + 90°C

#### Electrical data

Contact resistance  $\leq 5 \text{ m } \Omega$   
 Nominal current at 40°C 4 A per outlet /  
 4 A max. total  
 Nominal voltage 60 V  
 Rated voltage 63 V  
 Test voltage 1.5 kV eff. / 60s  
 Insulation resistance  $> 10^9 \Omega$   
 Pollution degree 3

#### Mechanical data

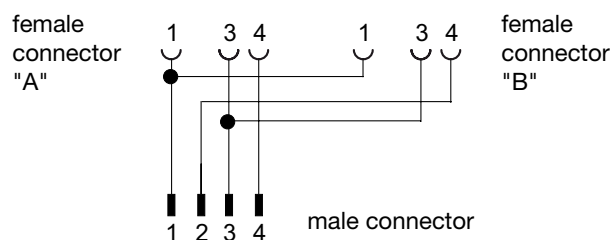
Degree of protection IP 67  
 (Only in locked position with  
 its proper counterparts.)

The application of these products in harsh environments should always be checked before use.

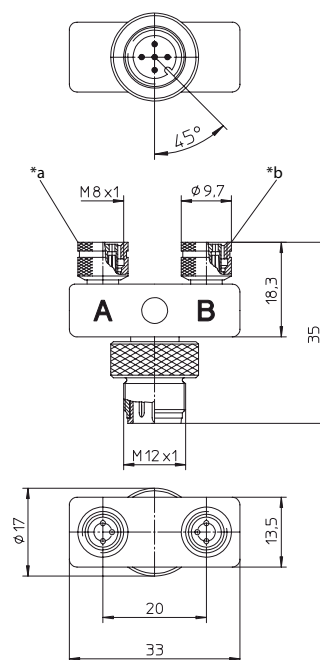
#### Materials

Housing / Molded body TPU, self-extinguishing  
 Insert socket:  
 TPU, self-extinguishing  
 plug:  
 TPU, self-extinguishing  
 Contact CuZn, pre-nickelated and  
 0,8  $\mu\text{m}$  gold-plated  
 Receptacle shell /  
 knurled screw /  
 nut /  
 hexagon screw /  
 hexagon nut /  
 sleeve CuZn, nickel-plated  
 O-ring FKM

#### Wiring diagram



#### Mechanical dimensions



All dimensions in mm

\*a coupling nut black

\*b coupling nut nickel-plated

#### Pin assignment

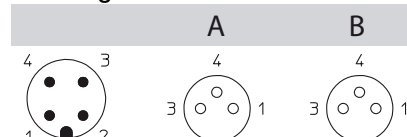


Fig. 7: SZC8-YU0

Ordering data		
Type	Order number	EAN number
SZC8-YU0	1SAF 912 911 R1000	4013614391217

# Wireless Automation

## Accessories

### Technical description

#### WSC1-YU0

Y-connector M12 plug (5 pole) onto 2 x M12 socket (5 pole) for 2 sensor pads WSP

#### Technical data

**Temperature range** -25°C ... + 90°C

#### Electrical data

Contact resistance  $\leq 5 \text{ m } \Omega$   
 Nominal current at 40°C 4 A per outlet /  
 4 A max. total  
 Nominal voltage 60 V  
 Rated voltage 63 V  
 Test voltage 1.5 kV eff. / 60s  
 Insulation resistance  $> 10^9 \Omega$   
 Pollution degree 3

#### Mechanical data

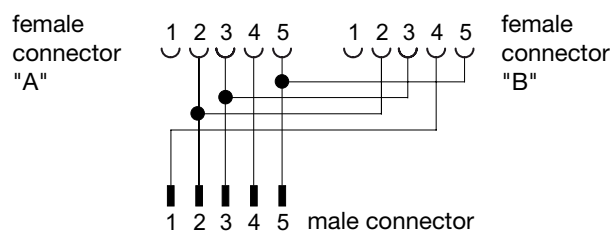
Degree of protection IP 67  
 (Only in locked position with  
 its proper counterparts.)

The application of these products in harsh environments should always be checked before use.

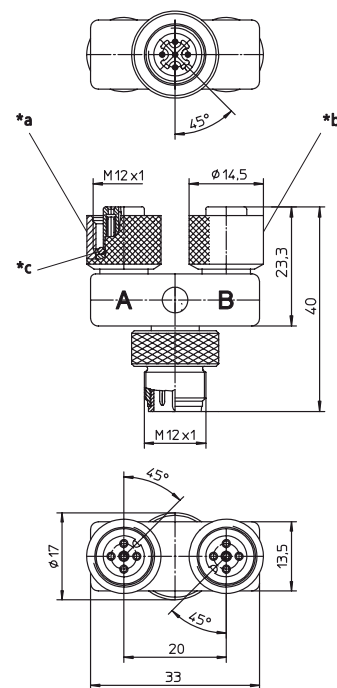
#### Materials

Housing / Molded body TPU, self-extinguishing  
 Insert socket:  
 PA GF, self-extinguishing  
 plug:  
 TPU, self-extinguishing  
 Contact CuZn, pre-nickel and  
 0,8  $\mu\text{m}$  gold-plated  
 Receptacle shell /  
 knurled screw /  
 nut /  
 hexagon screw /  
 hexagon nut /  
 sleeve CuZn, nickel-plated  
 O-ring FKM

#### Wiring diagram



#### Mechanical dimensions



All dimensions in mm

- \*a coupling nut black
- \*b coupling nut nickel-plated
- \*c O-ring

#### Pin assignment

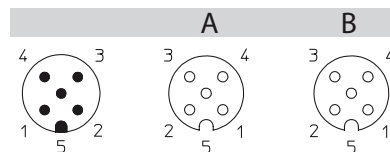


Fig. 8: WSC1-YU0

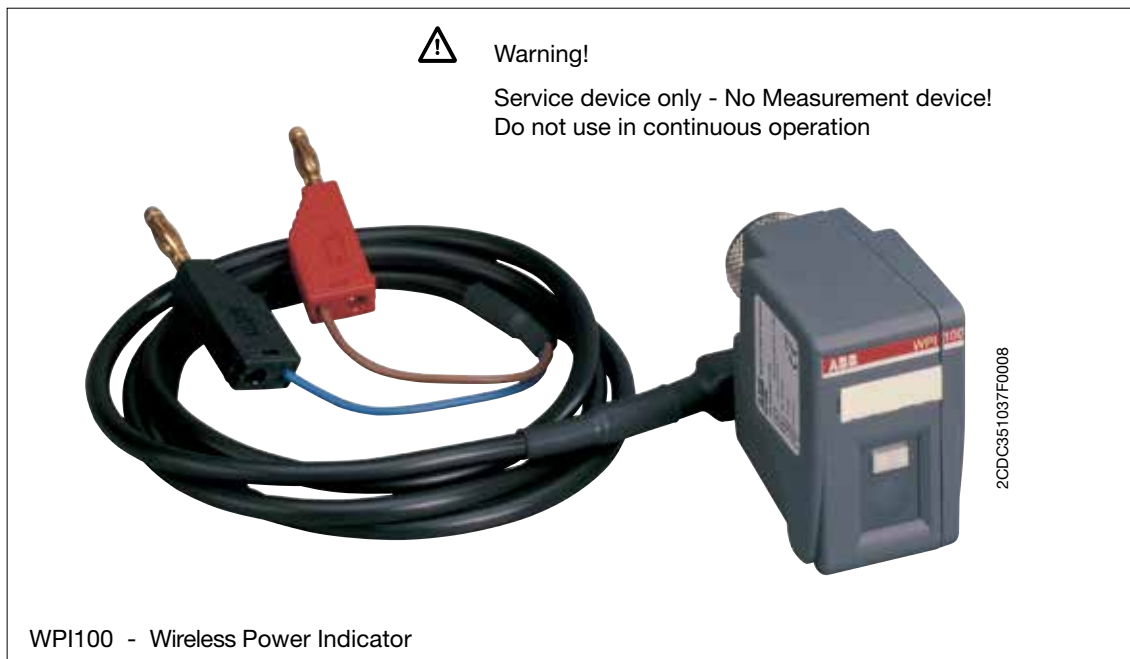
Ordering data		
Type	Order number	EAN number
WSC1-YU0	1SAF 912 990 R1000	4013614388569

# Wireless Automation

## Accessories

### Technical description

#### WPI100 - Wireless Power Indicator



#### Purpose and short description

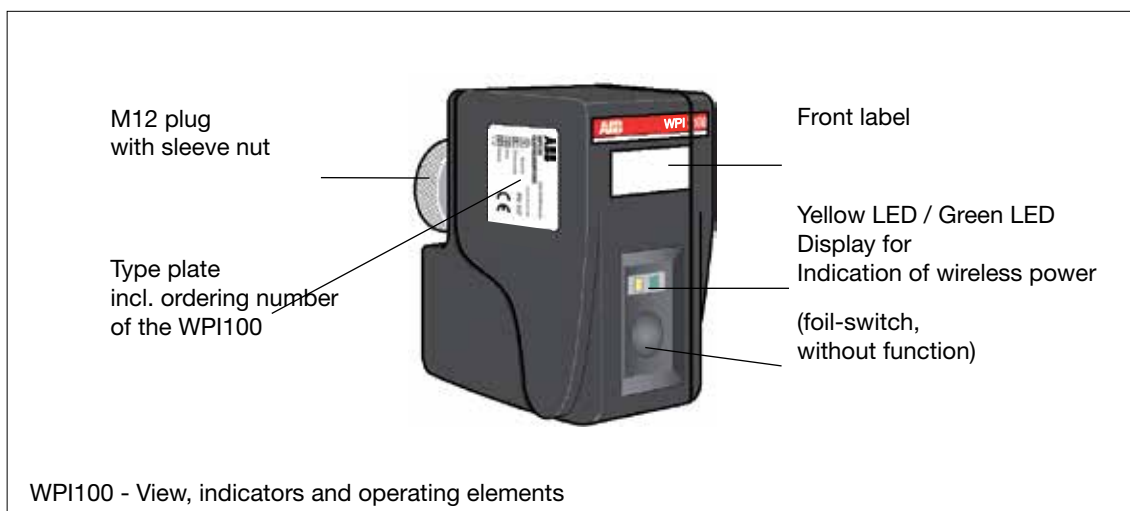
The WPI100 (Wireless Power Indicator) is used for indicating the field strength needed for the function of a wireless power product, especially the wireless proximity switch WSIX or sensor pad WSP.

It may not be used as measurement device for analysis of a regulatory situation. Such analysis have to be done via calculations as described in the planning and installation manual, simulations or via official calibrated measurement devices (as stated by the regulations and the BG in Germany)

#### Functions of the WPI100

The WPI100 has the following functions:

1. Indication of Wireless power availability and quality via LEDs
2. Remote reading of field strength with a standard voltmeter (proportional voltage generated)



# Wireless Automation

## Accessories

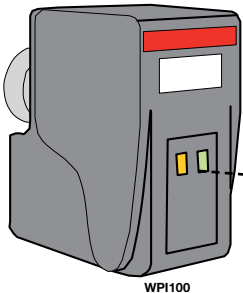
### Technical description

The field strength produced by a power supply WPU is indicated by means of two LEDs.

Additionally a voltage proportional to the field strength is output.

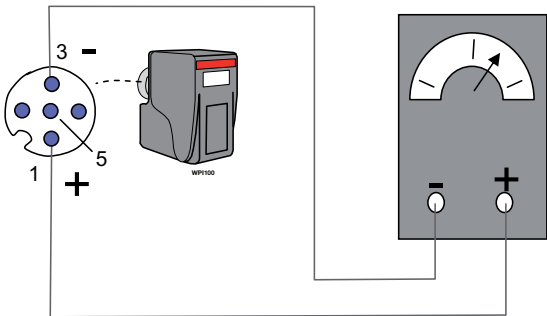
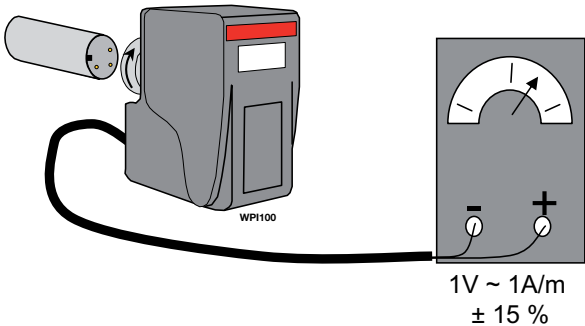
The remote reading of the voltage can be done via a standard volt meter connected by an extension cable.

The extension cable for the volt meter is attached at the jack socket (3.5 mm) at the back of the WPI



LEDs	WSIX100	WSP100	A/m Indication
	- (No power)	- (No power)	-
	OK (low margin)	Good	> 4.2
	Good	Surplus	> 5.6
	Surplus	Surplus	> 8
or gn			
or = Orange <sup>*)</sup> gn = Green			

<sup>\*)</sup> blinking of orange indicates intermediate state



Pin No.	Function
1	Output voltage +
2	-
3	GND
4	-
5	Output voltage -

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## Wireless Automation Accessories

### Technical description

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#### Technical data

Diagnosis indication	LEDs, orange / green
Operating temperature	-25 ... +55 °C
Storage temperature	-40 ... +70 °C
Connection voltmeter	3.5 mm jack socket (alternative M12 socket)
Frequency of fields trength	120 kHz
Weight	125 g

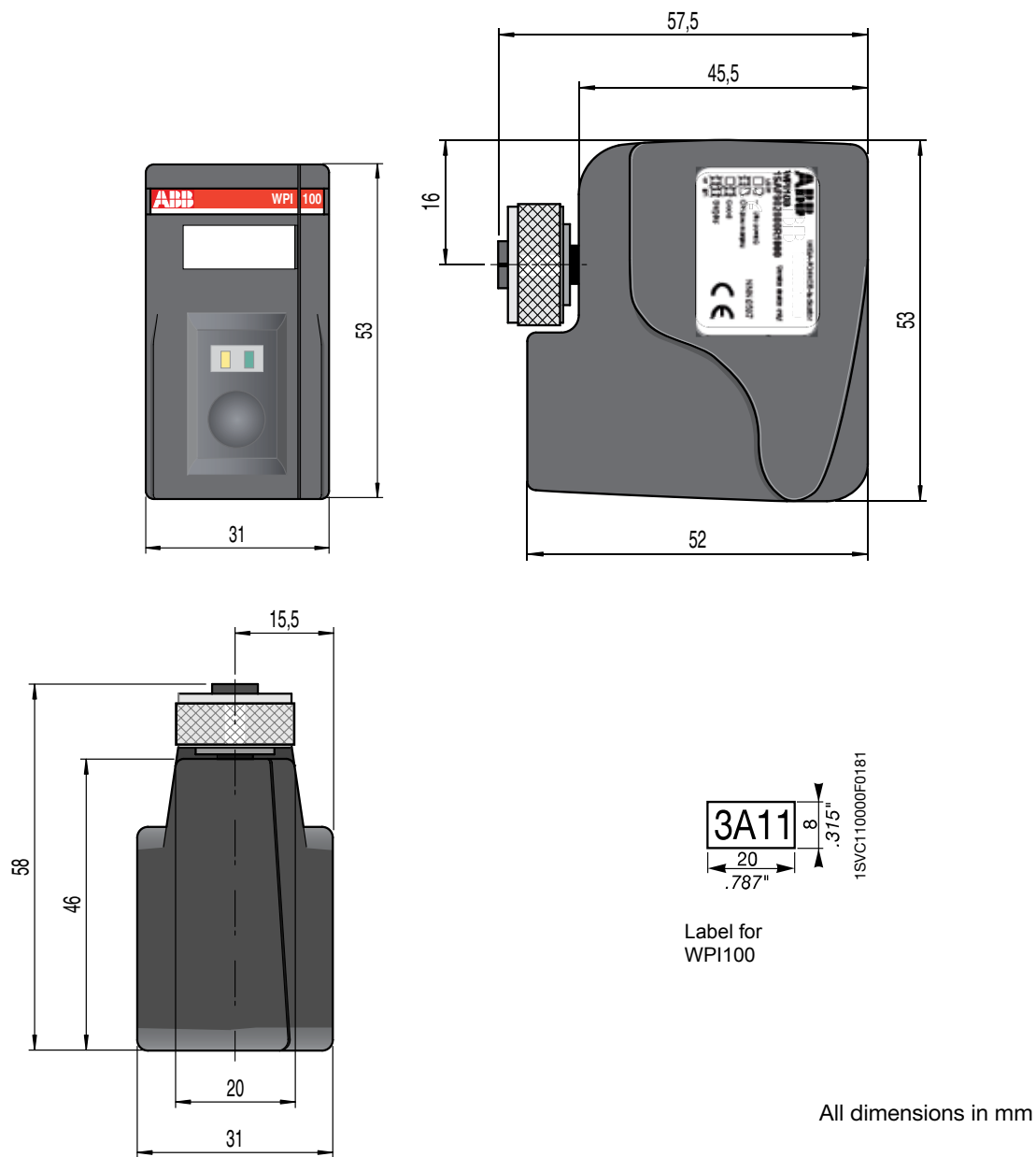
Ordering data		
Type	Ordering number	EAN number
WPI100	1SAF 902 800 R1000	4013614395611
Label	1SVR 366 017 R0100	4016779570459

# Wireless Automation

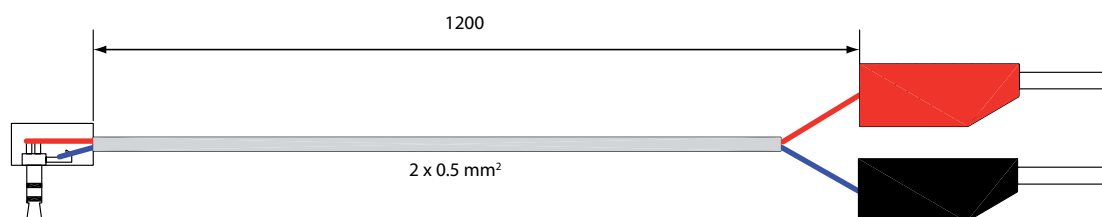
## Accessories

### Technical description

#### Mechanical dimensions



WPI100, mechanical dimensions



WPI100 - Extension cable for the volt meter, mechanical dimensions

# Contact us

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