

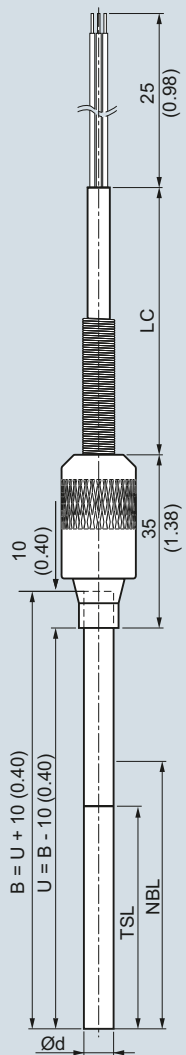
# Temperature Measurement

## SITRANS TS100

### Cable mineral-insulated

#### Dimensional drawings

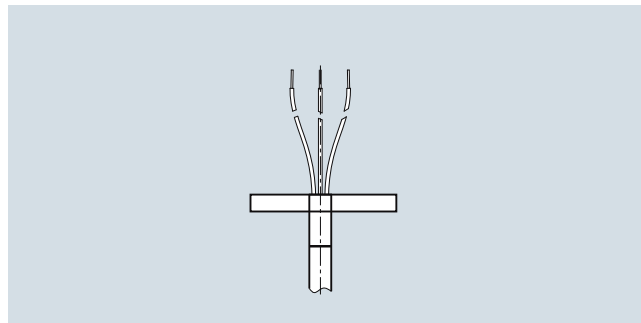
2



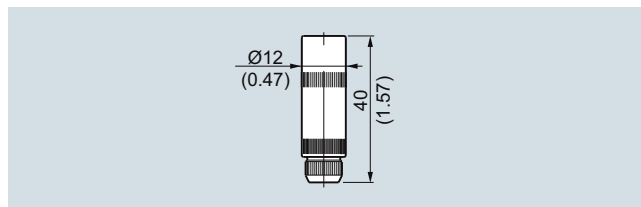
- B Measuring insert length
- Ød Measuring insert outer diameter (6 (0.24))
- LC Cable length
- NBL Non-bending length
- TSL Temperature-sensitive length
- U Insertion length

SITRANS TS100, temperature sensors in cable version, universal use, mineral-insulated version, for unfavorable space conditions, IP54 at sensor/cable transition, dimensions in mm (inch)

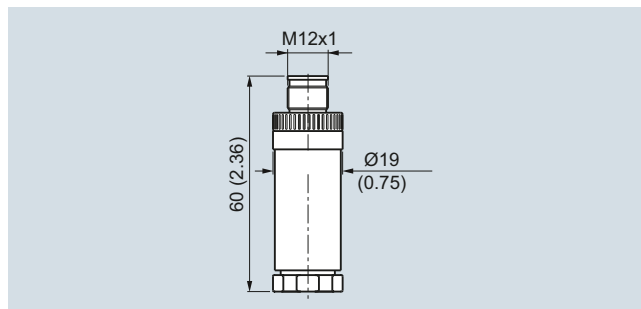
#### Design of connection side



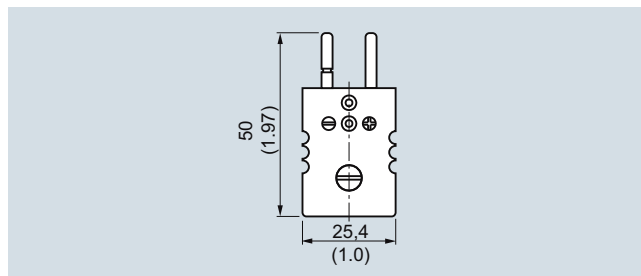
Flying leads, IP00, dimensions in mm (inch)



Coupling LEMO 1S, IP50, dimensions in mm (inch)



M12 plug, IP54, dimensions in mm (inch)



Thermocouple plug, IP20, dimensions in mm (inch)

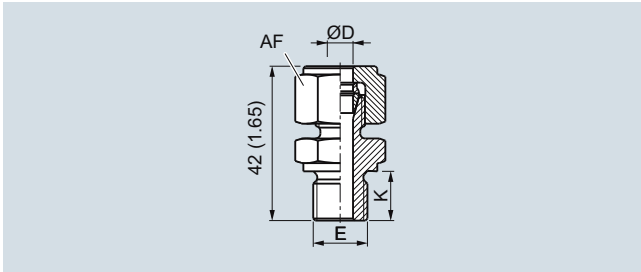
Selection and Ordering data	Article No.	Selection and Ordering data	Order code
<b>SITRANS TS100</b> <b>Temperature sensors in cable version, uni-versal use, mineral-insulated version, for unfavorable space conditions</b> ↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	<b>7MC7111-</b>	<b>Further designs</b> Add "-Z" to Article No. and specify Order code.	
<b>Sensor diameter</b> 6 mm (0.24 inch)	6	<b>Customer-specific length of sensor element B, effective length U = B-10</b> Select range, enter desired length in plain text (No entry = standard length)	<b>Y44</b>
<b>Length of sensor element B, effective length U = B-10; see dimensional drawings page 2/38</b> 200 mm (7.87 inch) 500 mm (19.68 inch) 750 mm (29.53 inch)	C D E	<b>Options</b> Add "-Z" to Article No., add options, separate extensions with "+".	
<b>Customer-specific length of sensor element B, effective length U = B-10; see dimensional drawings page 2/38</b> enter customer specific length with Y44, see Order codes below 70 ... 100 mm (2.76 ... 3.94 inch) Initial: 100 mm (3.94 inch) 101 ... 250 mm (3.98 ... 9.84 inch) Initial: 200 mm (7.87 inch) 251 ... 500 mm (9.88 ... 19.68 inch) Initial: 500 mm (19.68 inch) 501 ... 750 mm (19.72 ... 29.53 inch) Initial: 750 mm (29.53 inch) 751 ... 1 000 mm (19.72 ... 39.37 inch) Initial: 1 000 mm (39.37 inch) 1 001 ... 1500 mm (39.4 ... 59.00 inch) Initial: 1 500 mm (59.00 inch)	B C D E F G	<b>Connection cable, type and length</b> Cable type = 1st letter, Length 1 ... 99 m (3.28 ... 324.80 ft) = 2nd + 3rd place e.g.: 34 m (111.55 ft) connection cable PVC (PVC code is J34) with ?? meters connection cable (JJ) PVC/PVC, Operating temperature (-10...+105°C) (14 ... 221 °F) with ?? meters connection cable (SLFP) Silicone/Fluoropolymer, operating temperature -10 ... +80 °C (-14 ... +356 °F) with ?? meters connection cable (TGLV) PTFE/glass fiber/reinforced with stainless steel), Operating temperature (-100...+205°C (148 ... 401°F))	<b>J01 ... J99</b> <b>S01 ... S99</b> <b>L01 ... L99</b>
<b>Sensor</b> Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/16 Pt100, basis, -50 ... +400 °C (-58 ... +752 °F) Pt100, vibration-resitant, -50 ... +400 °C (-58 ... +752 °F) Pt100, expanded range, -196 ... 600 °C (-320.8 ... 1 112 °F) Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F) Thermocouple Type J, only class 2, -40 ... +750 °C (-40 ... +1 382 °F)	A B C K J	<b>Additional configurations on page after next page!</b> <b>You find ordering examples on page 2/37.</b>	
<b>Sensor number/Accuracy</b> Single, basic accuracy (Class 2/Class B) Single, increased accuracy (Class 1/Class A) Single, highest accuracy (Class AA) Double, basic accuracy (Class 2/Class B) Double, increased accuracy (Class 1/Class A) Double, highest accuracy (Class AA)	1 2 3 4 5 6		
<b>Design of connection side</b> Flying leads LEMO coupling 1S M12 connector, not for double Pt100 Thermocouple coupling, from TC-material (2xTC on request)	1 2 3 4		

# Temperature Measurement

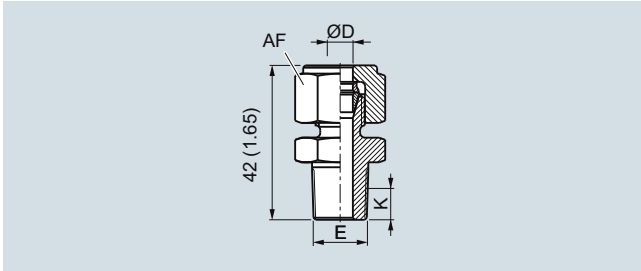
## SITRANS TS100

### Cable mineral-insulated

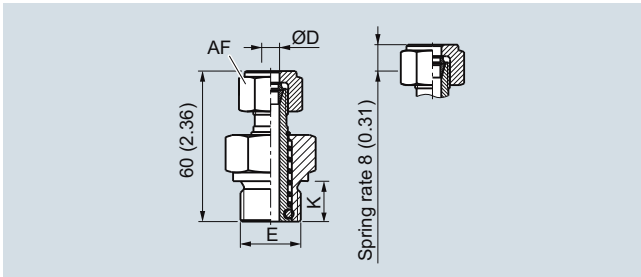
2



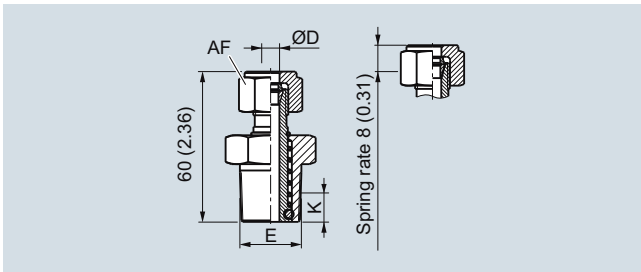
Compression fitting, dimensions in mm (inch)



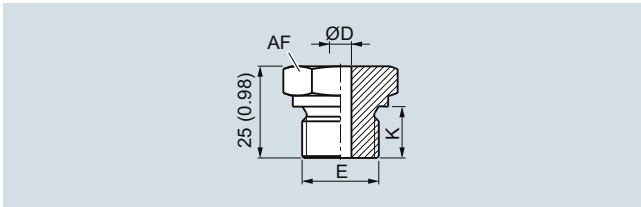
Compression fitting NPT, dimensions in mm (inch)



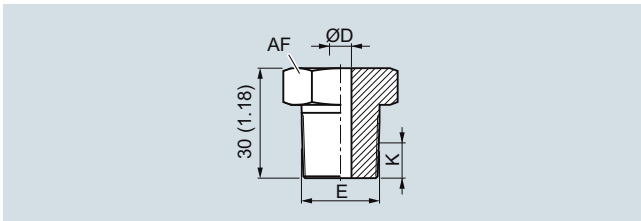
Spring-loaded compression fitting, dimensions in mm (inch)



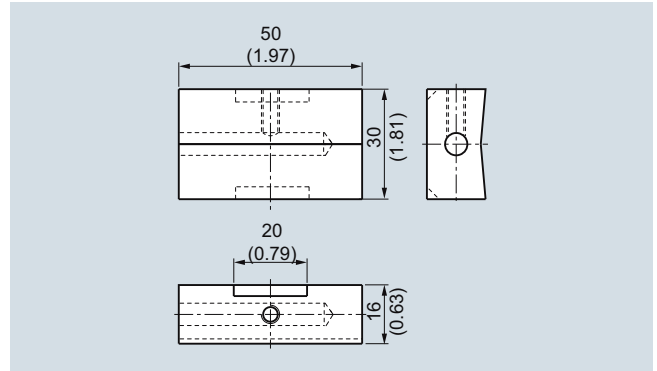
Spring-loaded compression fitting NPT, dimensions in mm (inch)



Soldering nipple, metric, dimensions in mm (inch)



Soldering nipple NPT, dimensions in mm (inch)

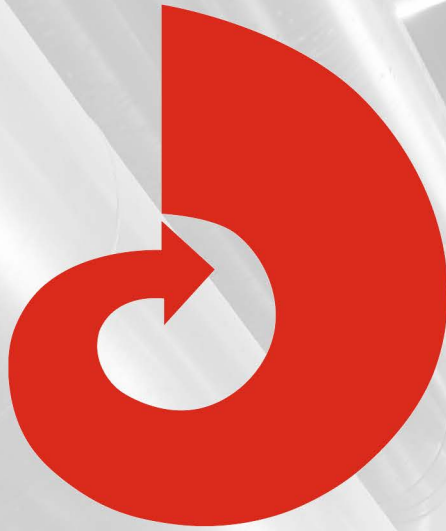


Surface connection piece, dimensions in mm (inch)

Selection and Ordering data	Order code
<b>Options</b>	
Add <b>"-Z"</b> to Article No., add options, separate extensions with <b>"+"</b> .	
<b>Process connection</b>	
Soldering nipple G $\frac{1}{4}$ ", enclosed	<b>A20</b>
Soldering nipple G $\frac{1}{2}$ ", enclosed	<b>A21</b>
Soldering nipple NPT $\frac{1}{2}$ ", enclosed	<b>A22</b>
Soldering nipple M18x1.5, enclosed	<b>A23</b>
Compression fitting G $\frac{1}{4}$ ", enclosed	<b>A30</b>
Compression fitting G $\frac{1}{2}$ ", enclosed	<b>A31</b>
Compression fitting NPT $\frac{1}{2}$ ", enclosed	<b>A32</b>
Surface connection piece, enclosed (non Ex)	<b>A50</b>
<b>Explosion protection</b>	
Intrinsic safety "ia", "ic"	<b>E01</b>
<b>Certificates and approvals</b>	
EN10204-3.1 Inspection certificate for materials coming into contact with media	<b>C12</b>
EN10204-3.1 Inspection certificate visual: measurement and functional inspection	<b>C34</b>
EN 10204-2.1: Declaration of compliance with the order	<b>C35</b>
ISO 9001 grease-free (cleaned for e.g. oxygen applications)	<b>C51</b>
<b>Further options</b>	
Stainless steel TAG plate , Enter lettering in plain text	<b>Y15</b>
Plant calibration per 1 point, enter temperature in plain text, Attention: For devices with built-in head transmitters, select test points within the set measurement range	<b>Y33</b>

**You find ordering examples on page 2/37.**

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