

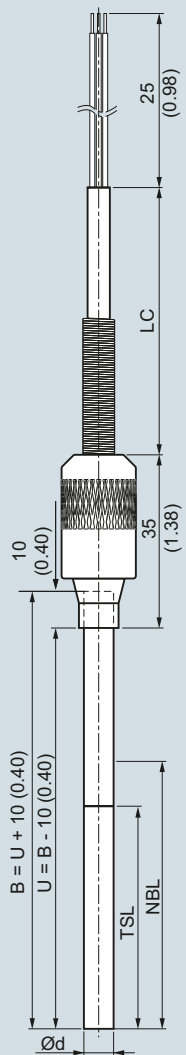
Temperature Measurement

SITRANS TS100

Cable mineral-insulated

Dimensional drawings

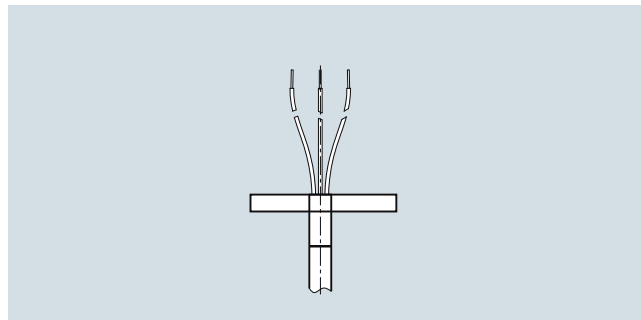
2



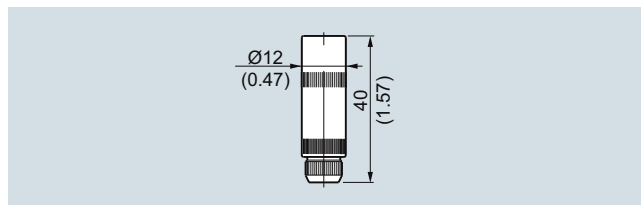
- B Measuring insert length
- Ød Measuring insert outer diameter (6 (0.24))
- LC Cable length
- NBL Non-bending length
- TSL Temperature-sensitive length
- U Insertion length

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)

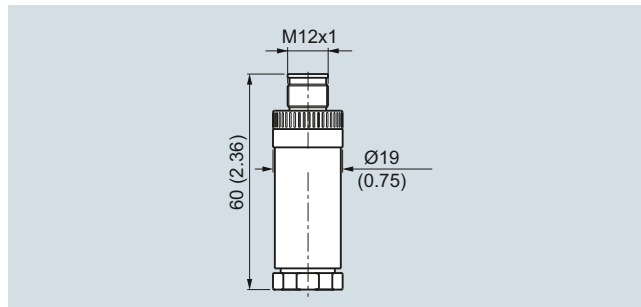
Design of connection side



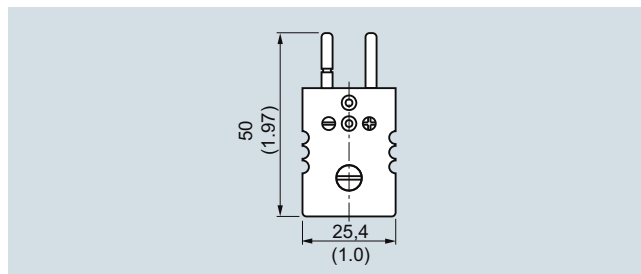
Flying leads, IP00, dimensions in mm (inch)



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.
SITRANS TS100 Temperature sensors in cable version, uni-versal use, mineral-insulated version, for unfavorable space conditions	7MC7111-
➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	
Sensor diameter 6 mm (0.24 inch)	6
Length of sensor element B, effective length U = B-10; see dimensional drawings page 2/38 200 mm (7.87 inch) 500 mm (19.68 inch) 750 mm (29.53 inch)	C D E
Customer-specific length of sensor element B, effective length U = B-10; see dimensional drawings page 2/38 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
Sensor 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
Sensor number/Accuracy 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
Design of connection side Flying leads LEMO coupling 1S M12 connector, not for double Pt100 Thermocouple coupling, from TC-material (2xTC on request)	1 2 3 4

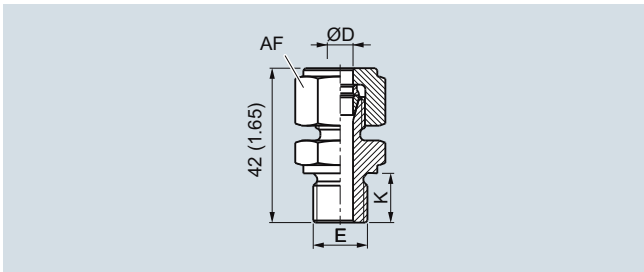
Selection and Ordering data	Order code
Further designs Add "-Z" to Article No. and specify Order code.	
Customer-specific length of sensor element B, effective length U = B-10 Select range, enter desired length in plain text (No entry = standard length)	Y44
Options Add "-Z" to Article No., add options, separate extensions with "+".	
Connection cable, type and length 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))	J01 ... J99 S01 ... S99 L01 ... L99
Additional configurations on page after next page! You find ordering examples on page 2/37.	

Temperature Measurement

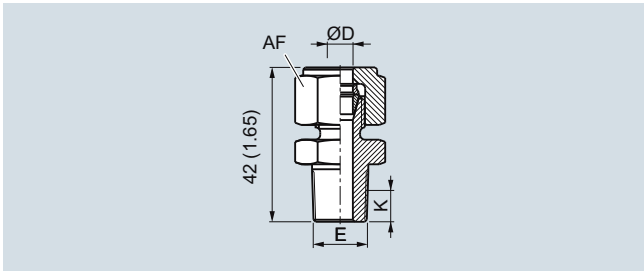
SITRANS TS100

Cable mineral-insulated

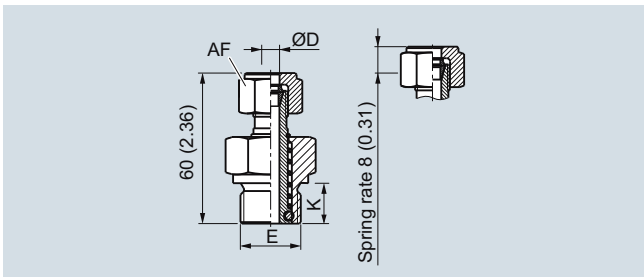
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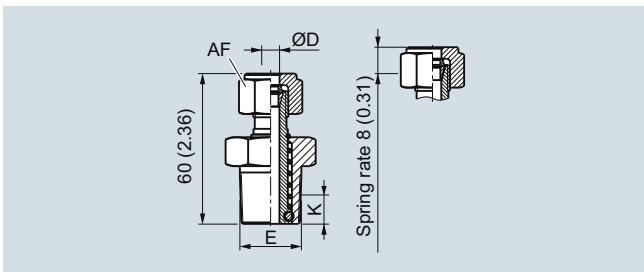
Compression fitting, dimensions in mm (inch)



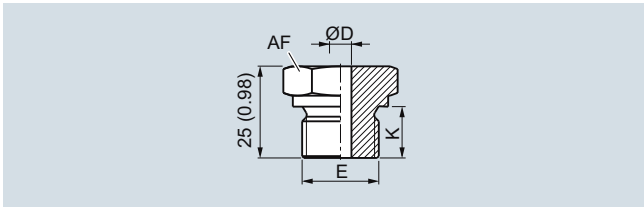
Compression fitting NPT, dimensions in mm (inch)



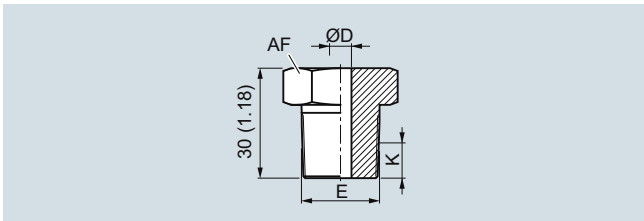
Spring-loaded compression fitting, dimensions in mm (inch)



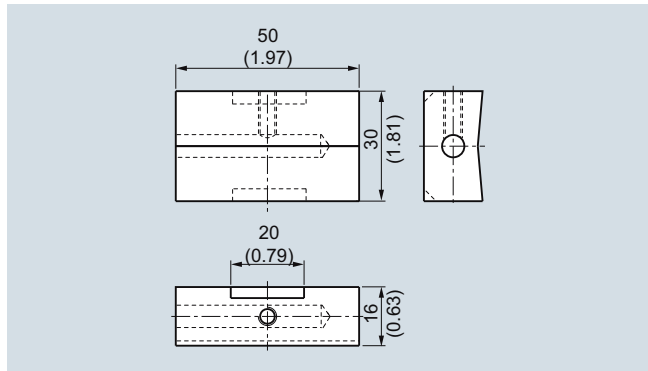
Spring-loaded compression fitting NPT, dimensions in mm (inch)



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
Options	
Add "-Z" to Article No., add options, separate extensions with "+" .	
Process connection	
Soldering nipple G $\frac{1}{4}$ ", enclosed	A20
Soldering nipple G $\frac{1}{2}$ ", enclosed	A21
Soldering nipple NPT $\frac{1}{2}$ ", enclosed	A22
Soldering nipple M18x1.5, enclosed	A23
Compression fitting G $\frac{1}{4}$ ", enclosed	A30
Compression fitting G $\frac{1}{2}$ ", enclosed	A31
Compression fitting NPT $\frac{1}{2}$ ", enclosed	A32
Surface connection piece, enclosed (non Ex)	A50
Explosion protection	
Intrinsic safety "ia", "ic"	E01
Certificates and approvals	
EN10204-3.1 Inspection certificate for materials coming into contact with media	C12
EN10204-3.1 Inspection certificate visual: measurement and functional inspection	C34
EN 10204-2.1: Declaration of compliance with the order	C35
ISO 9001 grease-free (cleaned for e.g. oxygen applications)	C51
Further options	
Stainless steel TAG plate , Enter lettering in plain text	Y15
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	Y33

You find ordering examples on page 2/37.