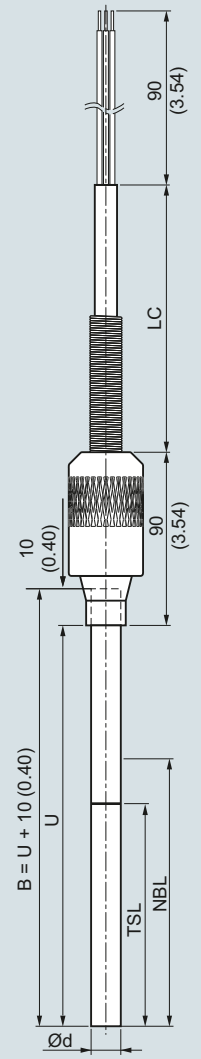
2

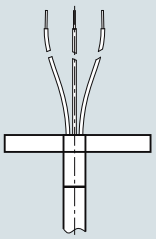
Dimensional drawings



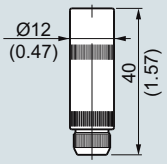
B	Measuring insert length
Ød	Measuring insert outer diameter (6 (0.24))
LC	Cable length
NBL	Non-bending length
TSL	Temperature-sensitive length
U	Insertion length

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)

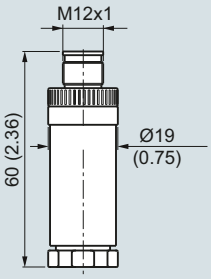
Design of connection side



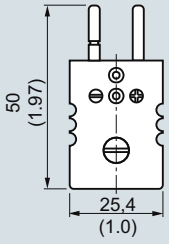
Flying leads, IP00, dimensions in mm (inch)



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



M12 device plug, IP54, dimensions in +mm (inch)



Thermocouple plug, IP20, dimensions in mm (inch)

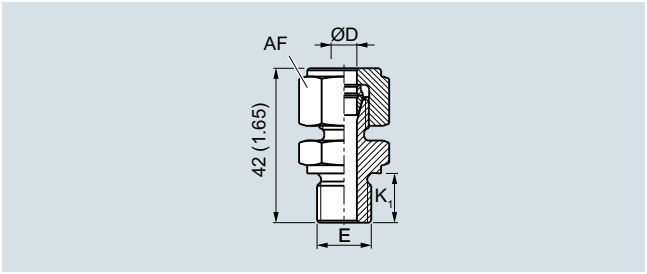
Selection and Ordering data	Article No.
SITRANS TS100 ↗	**7MC7111-**
Temperature sensors in cable version, universal use, mineral-insulated version, for unfavorable space conditions	■■■■■
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	
Sensor diameter	
6 mm (0.24 inch)	**6**
Length of sensor element B, effective length U = B-10; see dimensional drawings page 2/42	
200 mm (7.87 inch)	**C**
500 mm (19.68 inch)	**D**
750 mm (29.53 inch)	**E**
Customer-specific length of sensor element B, effective length U = B-10; see dimensional drawings page 2/42	
enter customer specific length with Y44, see Order codes below	
70 ... 100 mm (2.76 ... 3.94 inch) Initial: 100 mm (3.94 inch)	**B**
101 ... 250 mm (3.98 ... 9.84 inch) Initial: 200 mm (7.87 inch)	**C**
251 ... 500 mm (9.88 ... 19.68 inch) Initial: 500 mm (19.68 inch)	**D**
501 ... 750 mm (19.72 ... 29.53 inch) Initial: 750 mm (29.53 inch)	**E**
751 ... 1 000 mm (19.72 ... 39.37 inch) Initial: 1 000 mm (39.37 inch)	**F**
1 001 ... 1500 mm (39.4 ... 59.00 inch) Initial: 1 500 mm (59.00 inch)	**G**
Special length: < 70 mm (2.76 inch) or > 1500 mm (59.00 inch)	**X**
Sensor[1]	
Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/18	
Pt100, basis, -50 ... +400 °C (-58 ... +752 °F)	**A**
Pt100, vibration-resitant, -50 ... +400 °C (-58 ... +752 °F)	**B**
Pt100, expanded range, -196 ... +600 °C (-320.8 ... +1 112 °F)	**C**
Thermocouple Type K, -40 ... +1 000 °C (-40 .... +1 832 °F)	**K**
Thermocouple Type J, only class 2, -40 ... +750 °C (-40 ... +1 382 °F)	**J**
Sensor number/Accuracy	
Circuit Pt 100: 1 x 4-wire circuit or 2 x 3-wire circuit, see "Measuring technique: Connection types", page 2/20	
Single, basic accuracy (Class 2/Class B)	**1**
Single, increased accuracy (Class 1/Class A)	**2**
Single, highest accuracy (Class AA)	**3**
Double, basic accuracy (Class 2/Class B)	**4**
Double, increased accuracy (Class 1/Class A)	**5**
Double, highest accuracy (Class AA)	**6**
Design of connection side	
Flying leads	**1**
LEMO coupling 1S	**2**
M12 device plug, not for double Pt100	**3**
Thermocouple coupling, from TC-material (2xTC on request)	**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 X meters connection cable (JJ) PVC/PVC, Operating temperature (-10...+105°C) (14 ... 221 °F)	**J01 ... J99**
with X meters connection cable (SLFP) Silicone/Fluorpolymer, operating temperature -50 ... +180 °C (-58 ... +356 °F)	**S01 ... S99**
with X meters connection cable (TGLV) PTFE/glass fiber/reinforced with stainless steel), Operating temperature (-100...+205°C (148 ... 401°F))	**L01 ... L99**

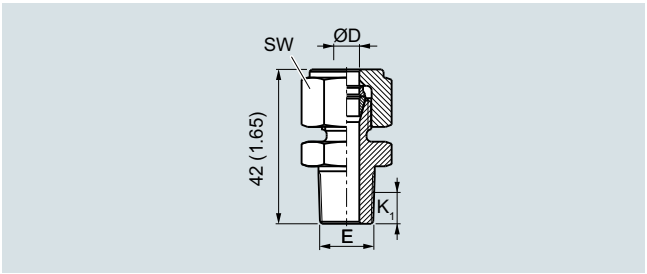
[1] Pt1000 versions are also available. To find these, please switch to Online Configuration in the PIA Life Cycle Portal: www.siemens.com/pia-portal

Additional configurations on page after next page!

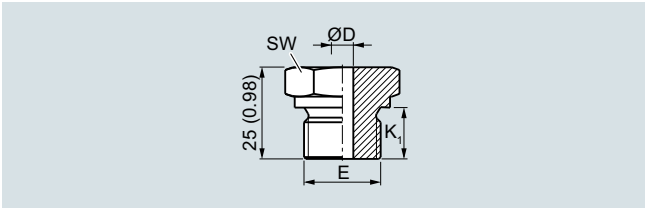
You find ordering examples on page 2/41.



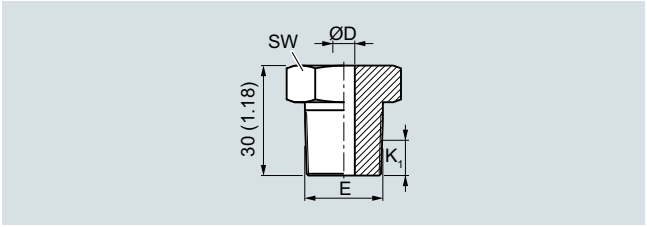
Compression fitting, metric (A30, A31), dimensions in mm (inch)



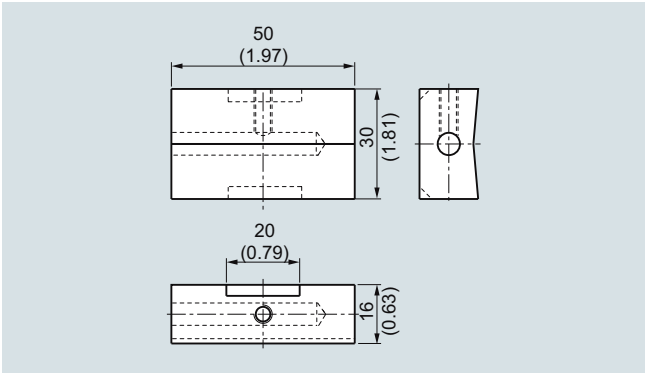
Compression fitting NPT (A32), dimensions in mm (inch)



Soldering nipple, metric (A20, A21, A23), dimensions in mm (inch)



Soldering nipple NPT (A22), dimensions in mm (inch)



Surface connection piece (A50), 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 G¼", enclosed	**A20**
Soldering nipple G½", enclosed	**A21**
Soldering nipple NPT½", enclosed	**A22**
Soldering nipple M18x1.5, enclosed	**A23**
Compression fitting G¼", enclosed	**A30**
Compression fitting G½", enclosed	**A31**
Compression fitting NPT ½", enclosed	**A32**
Surface connection piece, aluminum, enclosed (non Ex)	**A50**
Explosion protection	
Without explosion protection requirements (Europe, Australia, New Zealand)	**E00**
Intrinsic safety "i"/"IS1) according to ATEX and IECEx (Europe, Australia, New Zealand)	**E01**
Without explosion protection requirements (USA, Canada), Basis CSA	**E17**
Intrinsic safety "i"/"IS"[1] according to cCSAus (USA, Canada)	**E18**
Without explosion protection requirements (China)	**E54**
Intrinsic safety "i"/"IS"[1] according to NEPSI (China)	**E55**
Without explosion protection requirements (EAC)	**E80**
Intrinsic safety "i"/"IS"[1] according to EACEx (EAC)	**E81**
Marine approvals	
Det Norske Veritas Germanischer Lloyd (DNV GL)	**D01**
Bureau Veritas (BV)	**D02**
Lloyd's Register of Shipping (LR)	**D04**
American Bureau of Shipping (ABS)	**D05**
Certificates and approvals	
EN 10204-3.1 Inspection certificate for materials coming into contact with media	**C12**
EN 10204-3.1 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**
Option not found?	
Handling number special version	**Y99**

[1] Please select Ex i version of the optional transmitter.

You find ordering examples on page 2/41.