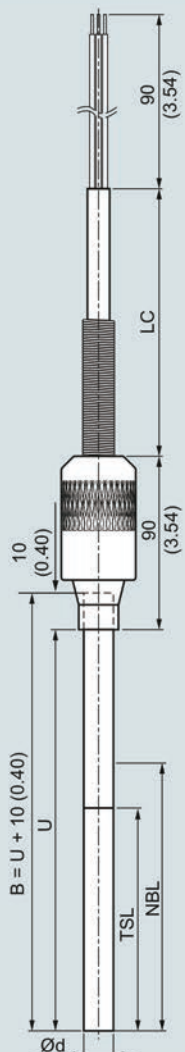


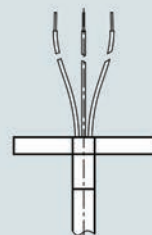
Dimensional drawings



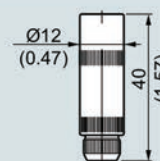
- B Measuring insert length
- Ød Measuring insert outer diameter (6 (0.24))
- LC Cable length
- NBL Non-bending length
- TSL Temperature-sensitive length
- U Insertion length

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)

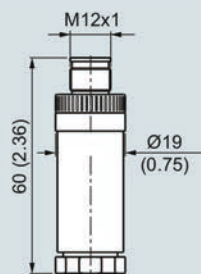
Design of connection side



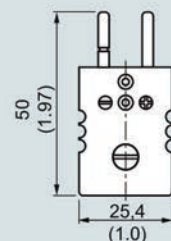
Flying leads, IP00, dimensions in mm (inch)



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



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



Thermocouple plug, IP20, dimensions in mm (inch)

2

Temperature Measurement

Temperature sensors
SITRANS TS100

Cable version, mineral-insulated

Selection and Ordering data

Article No.

SITRANS TS100

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)

Length of sensor element B, effective length U = B-10; see dimensional drawings page 2/41

200 mm (7.87 inch)

500 mm (19.68 inch)

750 mm (29.53 inch)

Customer-specific length of sensor element B, effective length U = B-10; see dimensional drawings page 2/41

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)

Special length: < 70 mm (2.76 inch) or

> 1500 mm (59.00 inch)

Sensor¹⁾

Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/21

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,

-40 ... +750 °C (-40 ... +1 382 °F)

Sensor number/Accuracy

Pt 100 connection: 1 x 4-wire connection or 2 x 3-wire connection, see "Measuring technology: connection types", page 2/23

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)

Design of connection side

Flying leads

LEMO coupling 1S

M12 device plug, not for double Pt100

Thermocouple coupling, from TC-material

(2xTC on request)

7MC7111-

6

C

D

E

B

C

D

E

F

G

X

A

B

C

K

J

1

2

3

4

5

6

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)

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)

with X meters connection cable (SLFP)

Silicone/Fluoropolymer, operating temperature

-50 ... +180 °C (-58 ... +356 °F)

with X meters connection cable (TGLV) PTFE/glass fiber/reinforced with stainless steel, Operating temperature (-100...+205°C (148 ... 401°F))

Y44

J01 ... J99

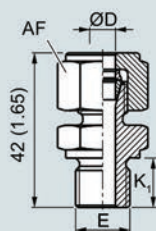
S01 ... S99

L01 ... L99

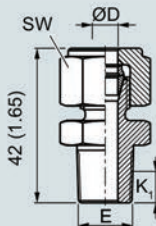
¹⁾ Pt1000 versions are also available. To find these, please switch to Online Configuration in the PIA Life Cycle Portal: www.siemens.com/pia-portal

Additional configurations on page after next page!

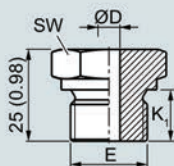
You find ordering examples on page 2/40.



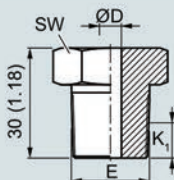
Compression fitting, metric (A30, A31), dimensions in mm (inch)



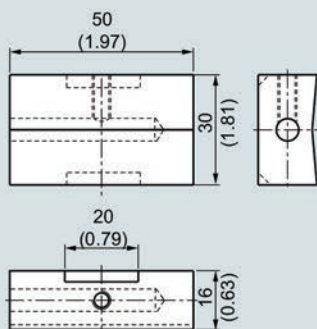
Compression fitting NPT (A32), dimensions in mm (inch)



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

OptionsAdd **"-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, 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
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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
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1) Please select Ex i version of the optional transmitter.

You find ordering examples on page 2/40.