

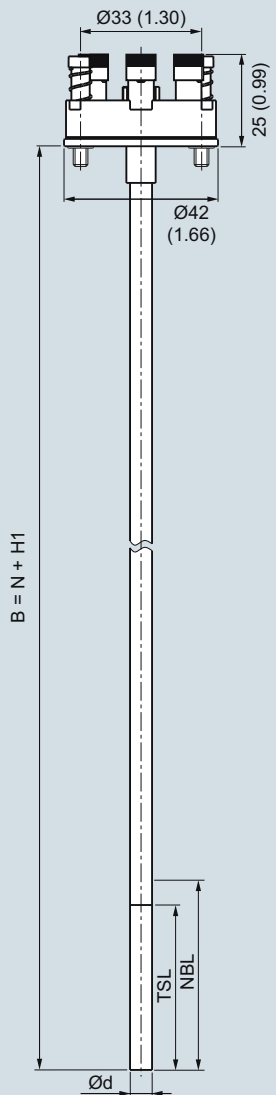
Temperature Measurement

SITRANS TSinsert

Measuring inserts for retrofits and upgrades European and American type

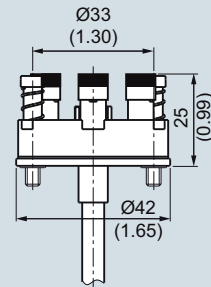
Dimensional drawings

2

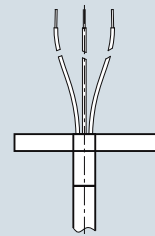


- B Measuring insert length
- Ød Measuring insert outer diameter
- N Nominal length
- NBL Non-bending length
- TSL Temperature-sensitive length

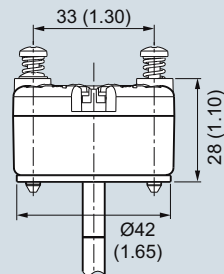
SITRANS TSinsert measuring inserts for temperature sensors, replaceable, mineral-insulated design
 European type (DIN ceramic base), spring load approx. 8 mm (0.31 inch)
 Cold End types: see drawings on right side, dimensions in mm (inch)



Cold End type, ceramic base, dimensions in mm (inch)



Cold End type, free wire ends, dimensions in mm (inch)



Cold End type, built-on transmitter, dimensions in mm (inch)

Measuring inserts for retrofits and upgrades European and American type

Selection and Ordering data	Article No.
SITRANS TSinsert for temperature sensors, replaceable, mineral-insulated design, European or American type	7MC701 - ■■■■
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	
Measurement tip diameter	
6 mm (0.24 inch)	6
8 mm (0.31 inch) (with sleeve)	8
10 mm (0.39 inch) (with sleeve)	0
Type	
European type - DIN ceramic base	1
European type - DIN flying leads, absolutely necessary with built-on transmitter	2
American type - ANSI (nipple spring)	5
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)	A
Pt100, vibration-resistant, -50 ... +400 °C (-58 ... +752 °F)	B
Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F)	C
Thermocouple Type J, -40 ... +750 °C (-40 ... +1 382 °F)	J
Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F)	K
Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832 °F)	N
Sensor number/Accuracy	
Single, basic accuracy (Class 2/Class B)	A
Single, increased accuracy (Class 1/Class A)	B
Single, highest accuracy (Class AA)	C
Double, basic accuracy (Class 2/Class B)	D
Double, increased accuracy (Class 1/Class A)	E
Double, highest accuracy (Class AA)	F
Measuring insert length B, standard	
145 mm (6.89 inch)	1 3
205 mm (8.07 inch)	1 7
275 mm (10.83 inch)	2 1
315 mm (12.40 inch)	2 3
345 mm (13.58 inch)	2 4
375 mm (14.76 inch)	2 5
405 mm (15.94 inch)	2 7
435 mm (17.13 inch)	2 0
555 mm (21.85 inch)	3 5
585 mm (23.03 inch)	3 6

Selection and Ordering data	Article No.
SITRANS TSinsert for temperature sensors, replaceable, mineral-insulated design, European or American type	7MC701 - ■■■■
Measuring insert length B, customer-specific	
specify length with Y44, s. page 2/95	
50 ... 100 mm (1.97 ... 3.94 inch)	1 1
Initial: 100 mm (3.94 inch)	
101 ... 150 mm (3.98 ... 5.91 inch)	1 3
Initial: 145 mm (5.71 inch)	
151 ... 200 mm (5.95 ... 7.87 inch)	1 5
Initial: 200 mm (7.87 inch)	
201 ... 250 mm (7.91 ... 9.84 inch)	1 7
Initial: 205 mm (8.07 inch)	
251 ... 300 mm (9.88 ... 11.81 inch)	2 1
Initial: 275 mm (10.83 inch)	
301 ... 350 mm (11.85 ... 13.78 inch)	2 3
Initial: 315 mm (12.40 inch)	
351 ... 400 mm (13.82 ... 15.75 inch)	2 5
Initial: 375 mm (14.76 inch)	
401 ... 450 mm (15.79 ... 17.72 inch)	2 7
Initial: 405 mm (15.94 inch)	
451 ... 500 mm (17.76 ... 19.68 inch)	3 1
Initial: 500 mm (19.68 inch)	
501 ... 550 mm (19.72 ... 21.65 inch)	3 3
Initial: 525 mm (20.67 inch)	
551 ... 600 mm (21.69 ... 23.92 inch)	3 5
Initial: 555 mm (21.85 inch)	
601 ... 700 mm (23.66 ... 27.56 inch)	3 7
Initial: 655 mm (25.79 inch)	
701 ... 800 mm (27.60 ... 31.50 inch)	4 1
Initial: 735 mm (28.94 inch)	
801 ... 900 mm (31.54 ... 35.43 inch)	4 3
Initial: 825 mm (32.48 inch)	
901 ... 1 000 mm (35.47 ... 39.37 inch)	4 5
Initial: 950 mm (37.40 inch)	
1 001 ... 1 500 mm (39.41 ... 59.05 inch)	4 7
Initial: 1 250 mm (49.21 inch)	
1 501 ... 1 700 mm (59.09 ... 66.93 inch)	4 8
Initial: 1 700 mm (66.93 inch)	

Additional configurations on page after next page!

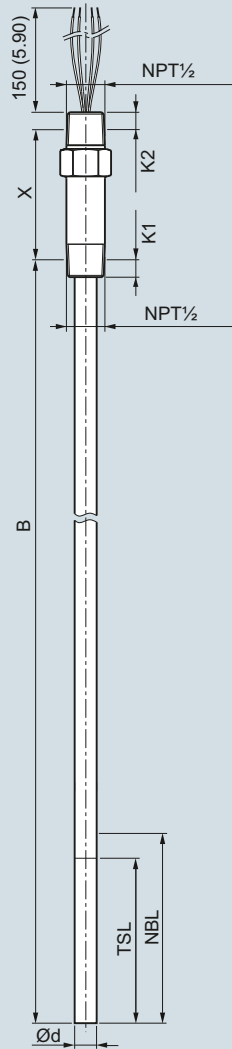
You find ordering examples on page 2/37!

Temperature Measurement

SITRANS TSinsert

Measuring inserts for retrofits and upgrades European and American type

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- B Measuring insert length
- Ød Measuring insert outer diameter
- K1 Screw depth
- K2 Screw depth
- N Nominal length
- NBL Non-bending length
- TSL Temperature-sensitive length
- X Extension length

SITRANS TSinsert, measuring inserts for temperature sensors, replaceable, mineral-insulated design
 American type, spring load approx. 21 mm (0.83 inch)

Measuring inserts for retrofits and upgrades European and American type

Selection and Ordering data	Order code
Further designs	
Add "-Z" to Article No. and specify Order code.	
Measuring insert length B	Y44
Select range, enter desired length in plain text (No entry = standard length)	
Options	
Add "-Z" to Article No. and add options, separate extensions with "+".	
Built-in head transmitter	
Measuring range to be set must be specified with plain text data "Y01".	
SITRANS TH100, 4 ... 20 mA, Pt100	T10
SITRANS TH100 Ex i (ATEX), 4 ... 20 mA, Pt100	T11
SITRANS TH200, 4 ... 20 mA, Universal	T20
SITRANS TH200 Ex i(ATEX), 4 ... 20 mA, Universal	T21
SITRANS TH300, HART, Universal	T30
SITRANS TH300 Ex i (ATEX), HART, Universal	T31
SITRANS TH400 PA, Universal	T40
SITRANS TH400 PA Ex i, Universal	T41
SITRANS TH400 FF, Universal	T45
SITRANS TH400 FF Ex i, Universal	T46
Explosion protection	
Intrinsic safety "ia", "ic" (please select Ex i version of the optional transmitter)	E01
Flameproof enclosure "d"; dust protection through housing "t" only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter)	E03
for SITRANS TS500 with protection type Ex n	E04
Designation, calibration	
Stainless steel TAG plate, enter lettering in plain text	Y15
Plant calibration per 1 point, enter temperature in plain text	Y33
Transmitter options	
Transmitter, enter complete setting in plain text (Y01: +/--NNNN ... +/--NNNN C,F)	Y01
Enter measuring point (max. 8 characters) in plain text	Y17
Transmitter, enter measuring point description (max. 16 characters) in plain text	Y23
Transmitter, enter measuring point text (max. 32 characters) in plain text	Y24
Transmitter, enter bus address in plain text	Y25
Transmitter, fail-safe value 3.6 mA (instead of 22.8 mA)	U36
Transmitter with a SIL 2 conformity	C20
Transmitter with a SIL 2/3 conformity	C23
Transmitter test protocol (5 points)	C11

You find ordering examples on page 2/37!

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