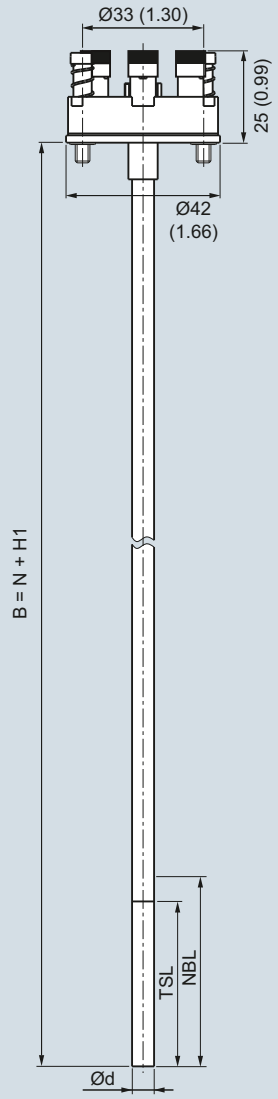
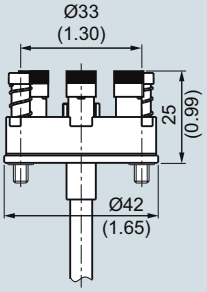
Dimensional drawings

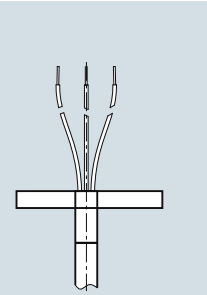


B	Measuring insert length
Ød	Measuring insert outer diameter
N	Nominal length
NBL	Non-bending length
TSL	Temperature-sensitive length
H_1	Type Axx = 41 (1.61) Type Bxx = 26 (1.02)

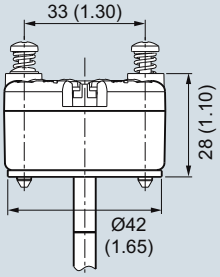
SITRANS TSinsert measuring inserts for temperature sensors, replaceable, mineral-insulated design
European type (DIN ceramic base), spring load approx. 8 mm (0.31 inch)
Cold End types: see drawings on right side, dimensions in mm (inch)



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)

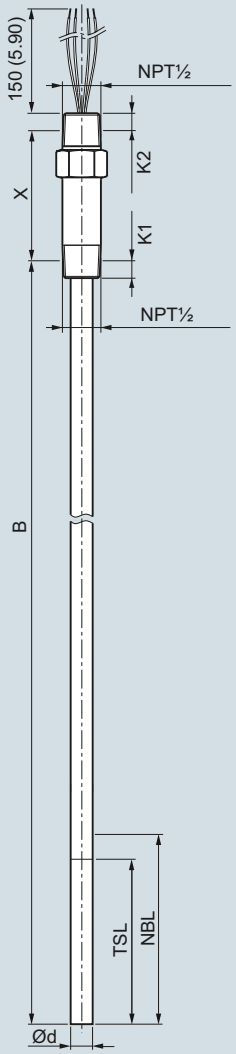
Measuring inserts for retrofits and upgrades European and American type

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, Umin = 100 mm -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 2/93	
85 ... 100 mm (1.97 ... 3.94 inch) Initial: 100 mm (3.94 inch)	**1 1**
101 ... 150 mm (3.98 ... 5.91 inch) Initial: 145 mm (5.71 inch)	**1 3**
151 … 200 mm (5.95 ... 7.87 inch) Initial: 200 mm (7.87 inch)	**1 5**
201 … 250 mm (7.91 ... 9.84 inch) Initial: 205 mm (8.07 inch)	**1 7**
251 … 300 mm (9.88 ... 11.81 inch) Initial: 275 mm (10.83 inch)	**2 1**
301 … 350 mm (11.85 ... 13.78 inch) Initial: 315 mm (12.40 inch)	**2 3**
351 … 400 mm (13.82 ... 15.75 inch) Initial: 375 mm (14.76 inch)	**2 5**
401 … 450 mm (15.79 ... 17.72 inch) Initial: 405 mm (15.94 inch)	**2 7**
451 … 500 mm (17.76 ... 19.68 inch) Initial: 500 mm (19.68 inch)	**3 1**
501 … 550 mm (19.72 ... 21.65 inch) Initial: 525 mm (20.67 inch)	**3 3**
551 … 600 mm (21.69 ... 23.92 inch) Initial: 555 mm (21.85 inch)	**3 5**
601 … 700 mm (23.66 ... 27.56 inch) Initial: 655 mm (25.79 inch)	**3 7**
701 … 800 mm (27.60 ... 31.50 inch) Initial: 735 mm (28.94 inch)	**4 1**
801 … 900 mm (31.54 ... 35.43 inch) Initial: 825 mm (32.48 inch)	**4 3**
901 … 1 000 mm (35.47 ... 39.37 inch) Initial: 950 mm (37.40 inch)	**4 5**
1 001 … 1 500 mm (39.41 ... 59.05 inch) Initial: 1 250 mm (49.21 inch)	**4 7**
1 501 … 1 700 mm (59.09 ... 66.93 inch) Initial: 1 700 mm (66.93 inch)	**4 8**

Additional configurations on page after next page!

You find ordering examples on page 2/38!



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	
Without explosion protection requirements (Europe, Australia, New Zealand)	**E00**
Intrinsic safety "i"/"IS"[1] according to ATEX and IECEx (Europe, Australia, New Zealand)	**E01**
For SITRANS TS500 in flameproof enclosure "d"/"XP type of protection; dust protection through housing "t"/"DIP"[2] according to ATEX and IECEx (Europe, Australia, New Zealand)	**E03**
For SITRANS TS500 in non-sparking "nA"/"NI" according to ATEX and IECEx type of protection (Europe, Australia, New Zealand)	**E04**
Without explosion protection requirements (USA, Canada)	**E17**
Intrinsic safety "i"/"IS"[1] according to cCSAus (USA, Canada)	**E18**
For SITRANS TS500 in flameproof enclosure "d"/"XP type of protection; dust protection through housing "t"/"DIP"[2] according to cCSAus (USA, Canada); NPT connections **at the enclosure** are mandatory	**E20**
For SITRANS TS500 in flameproof enclosure "d"/"XP type of protection; dust protection through housing "t"/"DIP"[2] according to cCSAus (USA); other connections (M, G, R)	**E21**
For SITRANS TS500 in non-sparking "nA"/"NI" type of protection according to cCSAus (USA, Canada)	**E23**
Without explosion protection requirements (China)	**E54**
Intrinsic safety "i"/"IS"[1] according to NEPSI (China)	**E55**
For SITRANS TS500 in flameproof enclosure "d" type of protection; dust protection through housing "t"[2] according to NEPSI (China)	**E56**
For SITRANS TS500 in non-sparking "nA"/"NI" type of protection according to NEPSI (China)	**E57**
Without explosion protection requirements (EAC)	**E80**
Intrinsic safety "i"/"IS"[1] according to EACEx (EAC)	**E81**
For SITRANS TS500 in flameproof enclosure "d"/"XP type of protection; dust protection through housing "t"/"DIP"[2] according to EACEx (EAC)	**E82**
For SITRANS TS500 in non-sparking "nA"/"NI" type of protection according to EACEx (EAC)	**E83**
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**

Selection and Ordering data	Order code
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**

1) Please select Ex i version of the optional transmitter.
2) Only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter).

You find ordering examples on page 2/38!