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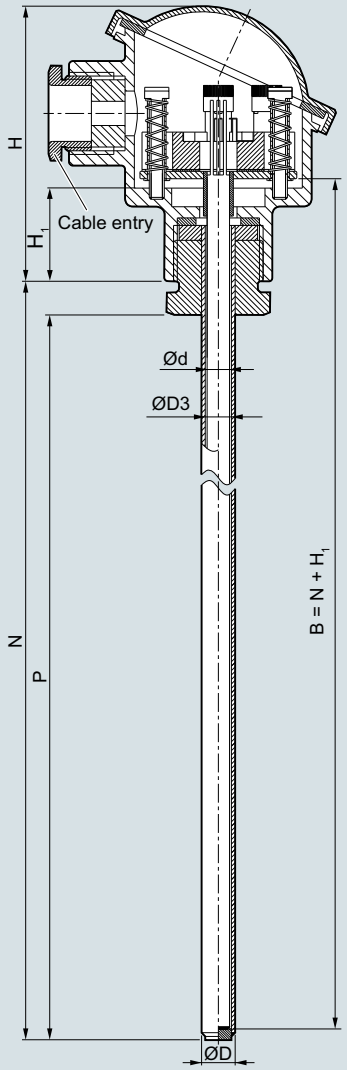
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Dimensional drawings



B	Measuring insert length
Ød	Measuring insert outer diameter (6 (0.24))
ØD	Process connection outer diameter
ØD3	Thermowell internal diameter
H	Head height
H_1	Type Axx = 41 (1.61) Type Bxx = 26 (1.02)
N	Nominal length
P	Space for process connection P ~ N - 9 (0.35), floor strength 3 mm

SITRANS TS500, temperature sensors for vessels and pipes, tubular thermowell for low to medium stress, without process connection, without extension, plug-in or for use with sliding compression joints, dimensions in mm (inch)

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Type 2, without process connection

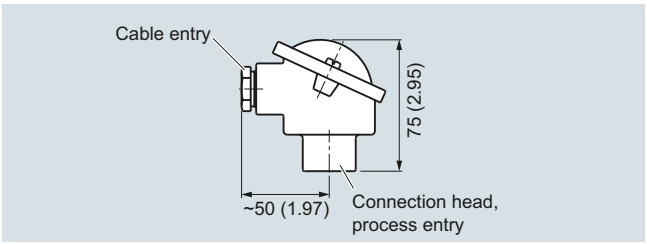
Selection and Ordering data	Article No.
SITRANS TS500 **Tubular thermowell for low to medium stress, according to DIN 43722, Type 2, without process connection, without extension, plug-in or use with moveable compression fittings**	**7MC751-** ■ - ■■■■■ - ■■■
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	
Material, in contact with media	
316Ti (1.4571)	**1**
316L (1.4404 or 1.4435)	**2**
Process connection	
Without process connection (for compression fitting) N=U	**0 N**
Thermowell form	
2; 9 mm (0.35 inch)	**A**
2; 12 mm (0.47 inch)	**B**
Insertion length U (=N), Standard	
160 mm (6.3 inch)	**0 4**
250 mm (9.84 inch)	**1 2**
400 mm (15.75 inch)	**2 2**
Insertion length U (=N), customer-specific enter customer specific length with Y44, see Order codes on page 2/58	
80 ... 100 mm (3.15 ... 3.94 inch) Initial: 100 mm (3.94 inch)	**0 1**
101 ... 120 mm (3.98 ... 4.72 inch) Initial: 120 mm (4.72 inch)	**0 2**
121 ... 140 mm (4.76 ... 5.51 inch) Initial: 140 mm (5.51 inch)	**0 3**
141 ... 160 mm (5.55 ... 6.30 inch) Initial: 160 mm (6.3 inch)	**0 4**
161 ... 180 mm (6.34 ... 7.09 inch) Initial: 180 mm (7.09 inch)	**0 5**
181 ... 200 mm (7.13 ... 7.87 inch) Initial: 200 mm (7.87 inch)	**0 6**
201 ... 220 mm (7.91 ... 8.66 inch) Initial: 220 mm (8.66 inch)	**0 7**
221 ... 240 mm (8.7 ... 9.45 inch) Initial: 225 mm (8.86 inch)	**1 1**
241 ... 260 mm (9.48 ... 10.24 inch) Initial: 250 mm (9.84 inch)	**1 2**
261 ... 280 mm (10.28 ... 11.02 inch) Initial: 280 mm (11.02 inch)	**1 3**
281 ... 300 mm (11.02 ... 11.81 inch) Initial: 285 mm (11.22 inch)	**1 4**
301 ... 320 mm (11.85 ... 12.6 inch) Initial: 315 mm (12.4 inch)	**1 5**
321 ... 340 mm (12.64 ... 13.39 inch) Initial: 340 mm (13.39 inch)	**1 6**
341 ... 360 mm (13.43 ... 14.17 inch) Initial: 360 mm (14.17 inch)	**2 0**
361 ... 380 mm (14.21 ... 14.96 inch) Initial: 380 mm (14.96 inch)	**2 1**
381 ... 400 mm (15 ... 15.75 inch) Initial: 400 mm (15.75 inch)	**2 2**
401 ... 420 mm (15.79 ... 16.54 inch) Initial: 420 mm (16.54 inch)	**2 3**
421 ... 440 mm (16.57 ... 17.32 inch) Initial: 440 mm (17.32 inch)	**2 4**
441 ... 460 mm (17.36 ... 18.11 inch) Initial: 460 mm (18.11 inch)	**2 5**
461 ... 480 mm (18.15 ... 18.90 inch) Initial: 465 mm (18.30 inch)	**2 6**
481 ... 500 mm (18.94 ... 19.68 inch) Initial: 500 mm (19.68 inch)	**2 7**
501 ... 550 mm (19.72 ... 21.65 inch) Initial: 510 mm (20.08 inch)	**3 1**
551 ... 600 mm (21.69 ... 23.62 inch) Initial: 600 mm (23.62 inch)	**3 2**
601 ... 650 mm (23.66 ... 25.59 inch) Initial: 650 mm (25.59 inch)	**3 3**

Selection and Ordering data	Article No.
SITRANS TS500 **Tubular thermowell for low to medium stress, according to DIN 43722, Type 2, without process connection, without extension, plug-in or use with moveable compression fittings**	**7MC751-** ■ - ■■■■■ - ■■■
651 ... 700 mm (25.63 ... 27.56 inch) Initial: 700 mm (27.56 inch)	**3 4**
701 ... 750 mm (27.6 ... 29.53 inch) Initial: 750 mm (29.53 inch)	**3 5**
751 ... 800 mm (29.57 ... 31.50 inch) Initial: 800 mm (31.50 inch)	**3 6**
801 ... 850 mm (31.5 ... 33.47 inch) Initial: 850 mm (33.47 inch)	**3 7**
851 ... 900 mm (33.5 ... 35.43 inch) Initial: 900 mm (35.43 inch)	**4 1**
901 ... 950 mm (35.47 ... 37.4 inch) Initial: 950 mm (37.4 inch)	**4 2**
951 ... 1 000 mm (37.44 ... 39.37 inch) Initial: 1 000 mm (39.37 inch)	**4 3**
1001 ... 1 100 mm (39.4 ... 43.30 inch) Initial: 1 100 mm (43.30 inch)	**4 4**
1 101 ... 1 200 mm (43.35 ... 47.24 inch) Initial: 1 200 mm (47.24 inch)	**4 5**
1 201 ... 1 300 mm (47.28 ... 51.18 inch) Initial: 1 300 mm (51.18 inch)	**4 6**
1 301 ... 1 400 mm (51.22 ... 55.11 inch) Initial: 1400 mm (55.11 inch)	**4 7**
1 401 ... 1 500 mm (55.15 ... 59.05 inch) Initial: 1 500 mm (59.05 inch)	**5 1**
Extension X Standard length for Type 2 as per DIN 43722 (without extension N=U)	**0**

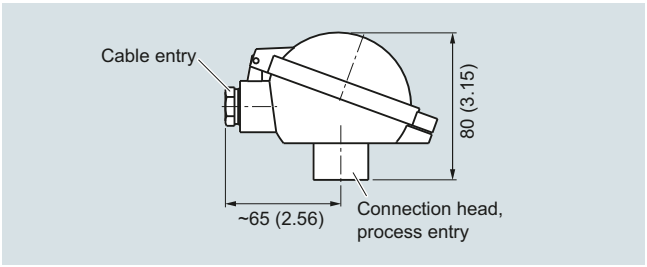
Additional configurations on page after next page!

You find ordering examples on page 2/40!

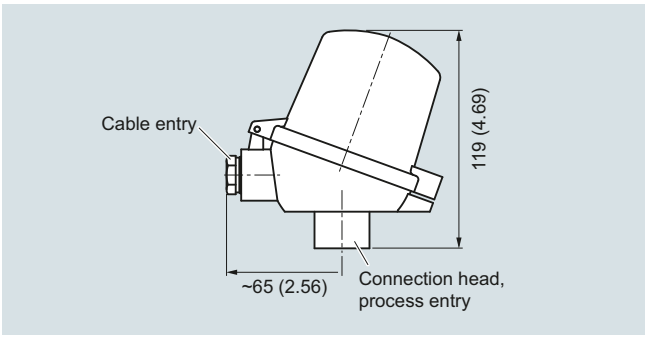
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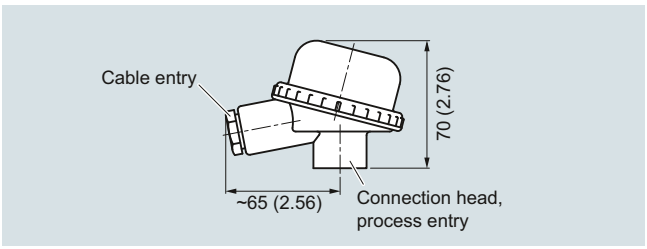
Connection head, aluminum, Type BA0, dimensions in mm (inch)



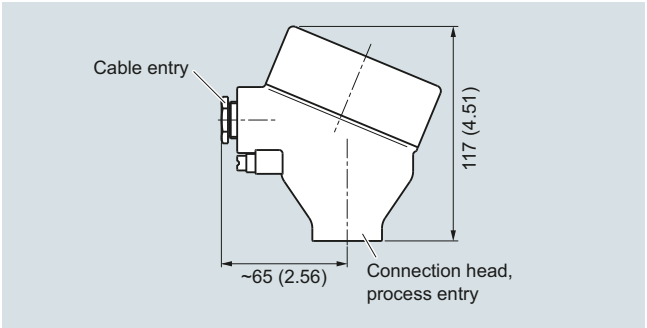
Connection head, aluminum, Type BB0, dimensions in mm (inch)



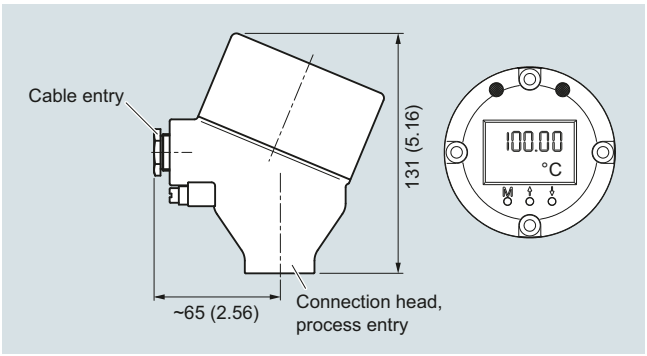
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



Connection head, plastic, Type BM0, dimensions in mm (inch)



Connection head, aluminum, Type AG0, stainless steel, Type AU0, dimensions in mm (inch)



Connection head with 4-20 mA display, aluminum, Type AH0, stainless steel, Type AV0, dimensions in mm (inch)

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Type 2, without process connection

Selection and Ordering data	Article No.
SITRANS TS500 **Tubular thermowell for low to medium stress, according to DIN 43722, Type 2, without process connection, without extension, plug-in or use with moveable compression fittings**	**7MC751-** ■ - ■■■■■ - ■■■
Head	
Aluminum head, BA0, flange cover, Standard	**A**
Aluminum head, BB0, low hinged cover, screw connection	**B**
Aluminum head, BC0, high hinged cover, screw connection	**C**
Aluminum head, AG0, screw cover, suitable for suitable for Ex d[1]	**G**
Aluminum head, AH0, screw cover, suitable for Ex d, display[1]	**H**
Plastic head, BM0, screw cover	**M**
Plastic head, BP0, high hinged cover, screw connection	**P**
Stainless steel head, AU0, screw cover, suitable for Ex d[1]	**U**
Stainless steel head, AV0, screw cover, suitable for Ex d, display[1]	**V**
Sensor[2] 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)	**A**
Pt100, vibration-resistant, -50 ... +400 °C (-58 ... +752 °F)	**B**
Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F)	**C**
Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F)	**K**
Thermocouple Type J, -40 ... +750 °C (-40 ... +1 382 °F)	**J**
Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832 °F)	**N**
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)	**1**
Single, increased accuracy (Class 1/Class A)	**2**
Single, highest accuracy (Class AA)	**3**
Double, basic accuracy (Class 2/Class B)	**5**
Double, increased accuracy (Class 1/Class A)	**6**
Double, highest accuracy (Class AA)	**7**

[1] Ex d in connection with Order code E03

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

Selection and Ordering data	Order code
Further designs	
Add "**-Z**" to Article No. and specify Order code.	
Insertion length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y44**
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, input 1 x Pt100, 4 ... 20 mA	**T12**
SITRANS TH320, input 1 x universal, 4 ... 20 mA	**T24**
SITRANS TH320, input 1 x universal, HART	**T34**
SITRANS TH420, input 2 x universal, HART	**T35**
SITRANS TH400, input 1 x universal, PA	**T40**
SITRANS TH400, input 1 x universal, PA, Ex	**T41**
SITRANS TH400, input 1 x universal, FF	**T45**
SITRANS TH400, input 1 x universal, FF, Ex	**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**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to ATEX and IECEx (Europe, Australia, New Zealand)	**E03**
Non-sparking "ec" according to ATEX and IECEx (Europe, Australia, New Zealand)	**E04**
Without explosion protection requirements (USA, Canada) Basis FM	**E10**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cFMus (USA, Canada); other connections (M,G,R)	**E14**
Non-sparking "nA"/"NI" according to cFMus (USA, Canada)	**E16**
Without explosion protection requirements (USA, Canada), Basis CSA	**E17**
Intrinsic safety "i"/"IS"[1] according to cCSAus (USA, Canada)	**E18**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cCSAus (USA); other connections (M, G, R)	**E21**
Non-sparking "nA"/"NI" according to cCSAus (USA, Canada)	**E23**
Without explosion protection requirements (China)	**E54**
Intrinsic safety "i"/"IS"[1] according to NEPSI (China)	**E55**
Flameproof enclosure "d"; dust protection through housing "t"[2] according to NEPSI (China)	**E56**
Non-sparking "nA"/"NI" according to NEPSI (China)	**E57**
Without explosion protection requirements (EAC)	**E80**
Intrinsic safety "i"/"IS"[1] according to EACEx (EAC)	**E81**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to EACEx (EAC)	**E82**
Non-sparking "nA"/"NI" according to EACEx (EAC)	**E83**
Marine approvals	
Det Norske Veritas Germanischer Lloyd (DNV GL)	**D01**

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Selection and Ordering data	Order code
Certificates and approvals	
EN 10204-3.1 Inspection certificate for materials coming into contact with media	**C12**
EN 10204-3.1 Inspection certificate for hydrostatic pressure test	**C31**
EN 10204-3.1 Inspection certificate for helium leak test	**C32**
EN 10204-3.1 Inspection certificate for dye-penetration-test	**C33**
EN 10204-3.1Inspection 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**
EN 10204-3.1 Acceptance test certificate "Positive Materials Identification" (PMI)	**On request**
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), marking on the device when Order code "Y15" is selected	**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**
SITRANS TH320/420 transmitter with SIL2/3 certificate	**C20**
Transmitter test protocol (5 points)	**C11**
Further options	
Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs)	**G01**
M12 device plug (in combination with transmitter, Non-Ex and intrinsically safe, max. IP65/67)	**G12**
Han 7D device plug (Non Ex and intrinsically safe, without mating connector max. IP65/67)	**G13**
Connection head with ½" NPT thread without cable gland, for AU0 and AH0 only IP66	**G20**
with outer earth screw for heads AG0, AH0, AU0 and AV0	**A02**
with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	**A03**
Compression fitting G½", enclosed	**A31**
Compression fitting NPT½", enclosed	**A32**
Option not found?	
Handling number special version	**Y99**

[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).

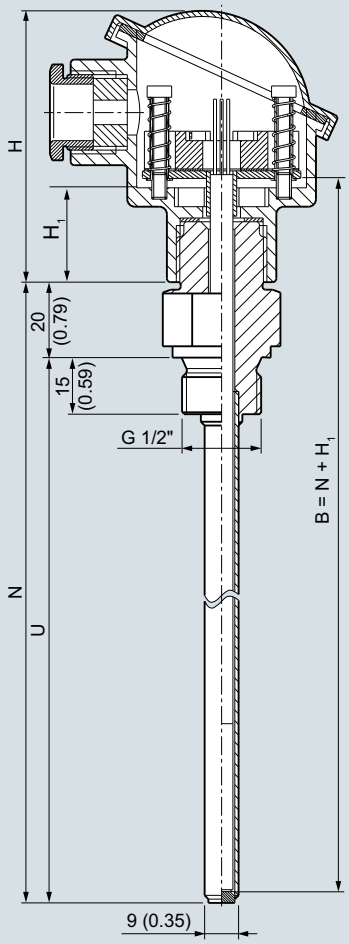
You find ordering examples on page 2/40.
Accessories, see page 2/251.

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Type 2N, screwed design

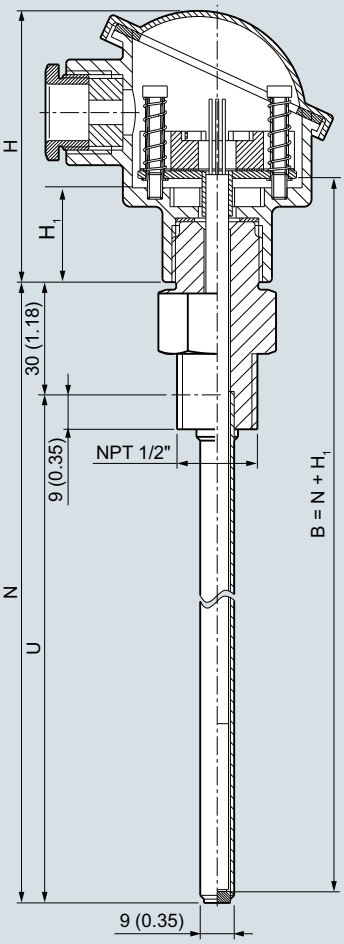
Dimensional drawings

SITRANS TS500, temperature sensors for vessels and pipes, tubular thermowell for low to medium stress, type 2N similar to DIN 43772, screwed design, without extension, non-adjustable connection head. For Ex-versions the maximum process temperature is 100 °C.



H Head height
N Nominal length
U Insertion length, floor strength 3 mm
H_1 Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)

Connection type "G", dimensions in mm (inch)



H Head height
N Nominal length
U Insertion length, floor strength 3 mm

Connection type "NPT", dimensions in mm (inch)

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Selection and Ordering data	Article No.
SITRANS TS500	**7MC751-**
Tubular thermowell, low to medium stress, Type 2N similar to DIN 43722, screwed design, without extension	-
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	
Material, in contact with media	
316Ti (1.4571)	1
316L (1.4404 or 1.4435)	2
Process connection	
G ½" (½"BSPP)	1 C
½" NPT	1 J
Thermowell form	
2N, 9 mm (0.35 inch)	A
Standard insertion length	
100 mm (3.97 inch)	0 1
160 mm (6.30 inch)	0 4
230 mm (9.06 inch)	1 0
360 mm (14.17 inch)	2 0
510 mm (20.08 inch)	3 1
Customer-specific insertion length	
enter customer specific length with Y44, see page 2/63 Order codes	
80 ... 100 mm (3.15 ... 3.94 inch) Initial: 100 mm (3.94 inch)	0 1
101 ... 120 mm (3.98 ... 4.72 inch) Initial: 120 mm (4.72 inch)	0 2
121 ... 140 mm (4.76 ... 5.51 inch) Initial: 140 mm (5.51 inch)	0 3
141 ... 160 mm (5.55 ... 6.30 inch) Initial: 160 mm (6.30 inch)	0 4
161 ... 180 mm (6.34 ... 7.09 inch) Initial: 180 mm (7.09 inch)	0 5
181 ... 200 mm (7.13 ... 7.87 inch) Initial: 200 mm (7.87 inch)	0 6
201 ... 220 mm (7.91 ... 8.66 inch) Initial: 220 mm (8.66 inch)	0 7
221…240 mm (8.70 ... 9.45 inch) Initial: 230 mm (9.06 inch)	1 0
241…260 mm (9.49 ... 10.24 inch) Initial: 250 mm (9.84 inch)	1 2
261…280 mm (10.28 ...11.02 inch) Initial: 280 mm (11.02 inch)	1 3
281…300 mm (11.06 ... 11.81 inch) Initial: 285 mm 11.22 inch)	1 4
301…320 mm (11.85 ... 13.00 inch) Initial: 315 mm (12.40 inch)	1 5
321…340 mm (12.64 ... 13.39 inch) Initial: 340 mm (13.39 inch)	1 6
341…360 mm (13.43 ... 14.17 inch) Initial: 360 mm (14.17 inch)	2 0
361…380 mm (14.21 ... 14.96 inch) Initial: 380 mm (14.96 inch)	2 1
381…400 mm (14.99 ... 15.75 inch) Initial: 400 mm (15.75 inch)	2 2
401…420 mm (15.79 ... 16.54 inch) Initial: 420 mm (16.54 inch)	2 3
421…440 mm (16.57 ... 17.32 inch) Initial: 440 mm (17.32 inch)	2 4
441…460 mm (17.36 ... 18.11 inch) Initial: 460 mm (18.11 inch)	2 5
461…480 mm (18.15 ... 18.90 inch) Initial: 465 mm (18.30 inch)	2 6
481…500 mm (18.94 ... 19.69 inch) Initial: 500 mm (19.69 inch)	2 7

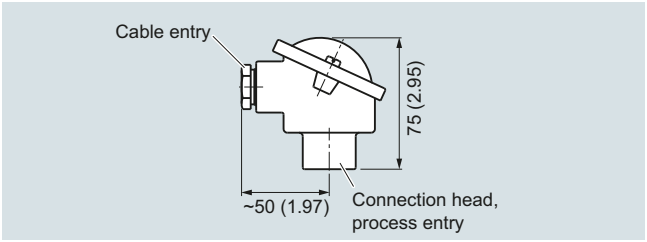
Selection and Ordering data	Article No.
SITRANS TS500	**7MC751-**
Tubular thermowell, low to medium stress, Type 2N similar to DIN 43722, screwed design, without extension	-
501…550 mm (19.72 ... 21.65 inch) Initial: 510 mm (20.08 inch)	3 1
551…600 mm (21.69 ... 23.62 inch) Initial: 600 mm (23.62 inch)	3 2
601…650 mm (23.66 ... 25.59 inch) Initial: 650 mm (25.59 inch)	3 3
651…700 mm (25.63 ... 27.56 inch) Initial: 700 mm (27.56 inch)	3 4
701…750 mm (27.60 ... 29.53 inch) Initial: 750 mm (29.53 inch)	3 5
751…800 mm (29.57 ... 31.50 inch) Initial: 800 mm (31.50 inch)	3 6
801…850 mm (31.54 ... 33.46 inch) Initial: 850 mm (33.46 inch)	3 7
851…900 mm (33.50 ... 35.43 inch) Initial: 900 mm (35.43 inch)	4 1
901…950 mm (35.47 ... 37.40 inch) Initial: 950 mm (37.40 inch)	4 2
951…1 000 mm (37.44 ... 39.37 inch) Initial: 1 000 mm (39.37 inch)	4 3
1 001…1 100 mm (39.41 ... 43.31 inch) Initial: 1 100 mm (43.31 inch)	4 4
1 101…1 200 mm (43.35 ... 47.24 inch) Initial: 1 200 mm (47.24 inch)	4 5
1 201…1 300 mm (47.28 ... 51.18 inch) Initial: 1 300 mm (51.18 inch)	4 6
1 301…1 400 mm (51.22 ... 55.12 inch) Initial: 1400 mm (55.12 inch)	4 7
1 401…1 500 mm (55.16 ... 59.05 inch) Initial: 1 500 mm (59.05 inch)	5 1
Extension X	
without neck tube, (non-adjustable)	0

Additional configurations on page after next page!

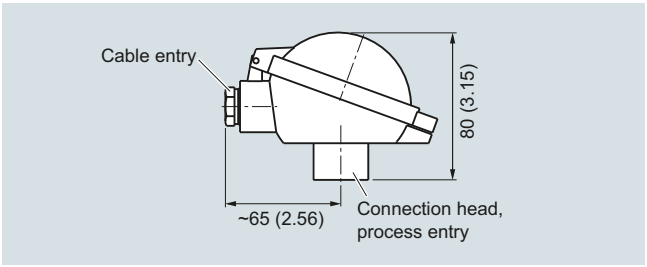
You find ordering examples on page 2/40!

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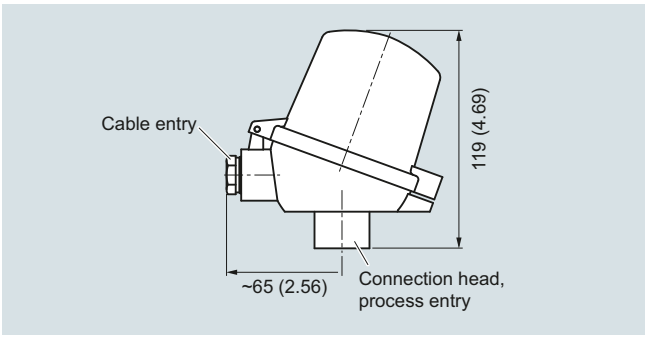
Type 2N, screwed design



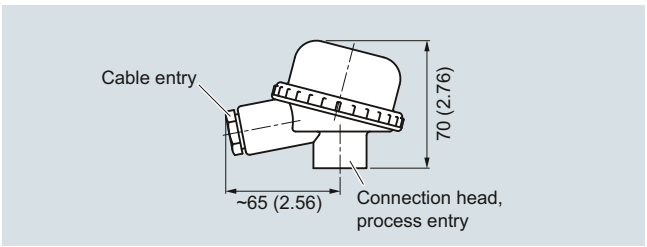
Connection head, aluminum, Type BA0, dimensions in mm (inch)



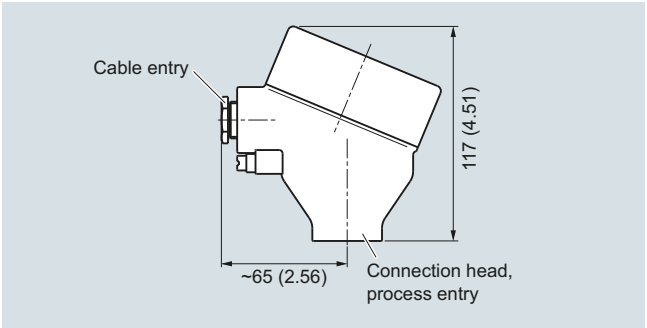
Connection head, aluminum, Type BB0, dimensions in mm (inch)



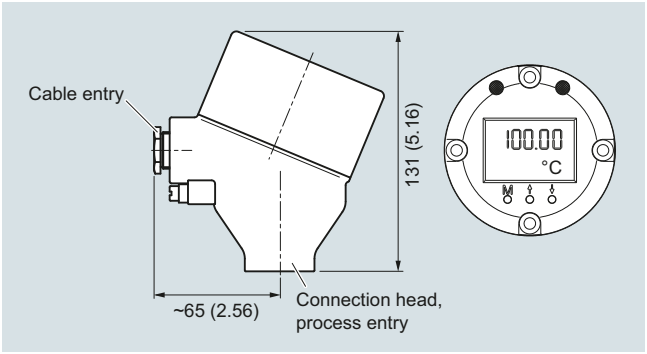
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



Connection head, plastic, Type BM0, dimensions in mm (inch)



Connection head, aluminum, Type AG0, stainless steel, Type AU0, dimensions in mm (inch)



Connection head with 4-20 mA display, aluminum, Type AH0, stainless steel, Type AV0, dimensions in mm (inch)

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Selection and Ordering data	Article No.
SITRANS TS500 **Tubular thermowell, low to medium stress, Type 2N similar to DIN 43722, screwed design, without extension, for maximum process temperatures of 100 °C**	**7MC751-** ■ - ■■■■■ - ■■■
Head	
Aluminum head, BA0, flange cover, Standard	A
Aluminum head, BB0, low hinged cover, screw connection	B
Aluminum head, BC0, high hinged cover, screw connection	C
Aluminum head, AG0, screw cover, suitable for Ex d[1]	G
Aluminum head, AH0, screw cover, suitable for Ex d, display[1]	H
Plastic head, BM0, screw cover	M
Plastic head, BP0high hinged cover, screw connection	P
Stainless steel head, AU0, screw cover, suitable for Ex d[1]	U
Stainless steel head, AV0, screw cover, suitable for Ex d, display[1]	V
Sensor[2] 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)	A
Pt100, vibration-resistant, -50 ... +400 °C (-58 ... +752 °F)	B
Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F)	C
Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F)	K
Thermocouple Type J, -40 ... +750 °C (-40 ... +1 382 °F)	J
Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832 °F)	N
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)	1
Single, increased accuracy (Class 1/Class A)	2
Single, highest accuracy (Class AA)	3
Double, basic accuracy (Class 2/Class B)	5
Double, increased accuracy (Class 1/Class A)	6
Double, highest accuracy (Class AA)	7

[1] Ex d in connection with Order code E03

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

Selection and Ordering data	Order code
Further designs Add "**-Z**" to Article No. and specify Order code.	
Insertion length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y44**
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, input 1 x Pt100, 4 ... 20 mA	**T12**
SITRANS TH320, input 1 x universal, 4 ... 20 mA	**T24**
SITRANS TH320, input 1 x universal, HART	**T34**
SITRANS TH420, input 2 x universal, HART	**T35**
SITRANS TH400, input 1 x universal, PA	**T40**
SITRANS TH400, input 1 x universal, PA, Ex	**T41**
SITRANS TH400, input 1 x universal, FF	**T45**
SITRANS TH400, input 1 x universal, FF, Ex	**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**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to ATEX and IECEx (Europe, Australia, New Zealand)	**E03**
Non-sparking "ec" according to ATEX and IECEx (Europe, Australia, New Zealand)	**E04**
Without explosion protection requirements (USA, Canada) Basis FM	**E10**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cFMus (USA, Canada); other connections (M,G,R)	**E14**
Non-sparking "nA"/"NI" according to cFMus (USA, Canada)	**E16**
Without explosion protection requirements (USA, Canada), Basis CSA	**E17**
Intrinsic safety "i"/"IS"[1] according to cCSAus (USA, Canada)	**E18**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cCSAus (USA); other connections (M, G, R)	**E21**
Non-sparking "nA"/"NI" according to cCSAus (USA, Canada)	**E23**
Without explosion protection requirements (China)	**E54**
Intrinsic safety "i"/"IS"[1] according to NEPSI (China)	**E55**
Flameproof enclosure "d"; dust protection through housing "t"[2] according to NEPSI (China)	**E56**
Non-sparking "nA"/"NI" according to NEPSI (China)	**E57**
Without explosion protection requirements (EAC)	**E80**
Intrinsic safety "i"/"IS"[1] according to EACEx (EAC)	**E81**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to EACEx (EAC)	**E82**
Non-sparking "nA"/"NI" according to EACEx (EAC)	**E83**
Marine approvals	
Det Norske Veritas Germanischer Lloyd (DNV GL)	**D01**

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Type 2N, screwed design

Selection and Ordering data	Order code
Certificates and approvals	
EN 10204-3.1 Inspection certificate for materials coming into contact with media	**C12**
EN 10204-3.1 Inspection certificate for hydrostatic pressure test	**C31**
EN 10204-3.1 Inspection certificate for helium leak test	**C32**
EN 10204-3.1 Inspection certificate for dye-penetration-test	**C33**
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**
EN 10204-3.1 Acceptance test certificate "Positive Materials Identification" (PMI)	**On request**
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), marking on the device when Order code "Y15" is selected	**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**
SITRANS TH320/420 transmitter with SIL2/3 certificate	**C20**
Transmitter test protocol (5 points)	**C11**
Further options	
Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs)	**G01**
M12 device plug (in combination with transmitter, Non-Ex and intrinsically safe, max. IP65/67)	**G12**
Han 7D device plug (Non Ex and intrinsically safe, without mating connector max. IP65/67)	**G13**
Connection head with ½" NPT thread without cable gland, for AU0 and AH0 only IP66	**G20**
with outer earth screw for heads AG0, AH0, AU0 and AV0	**A02**
with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	**A03**
Option not found?	
Handling number special version	**Y99**

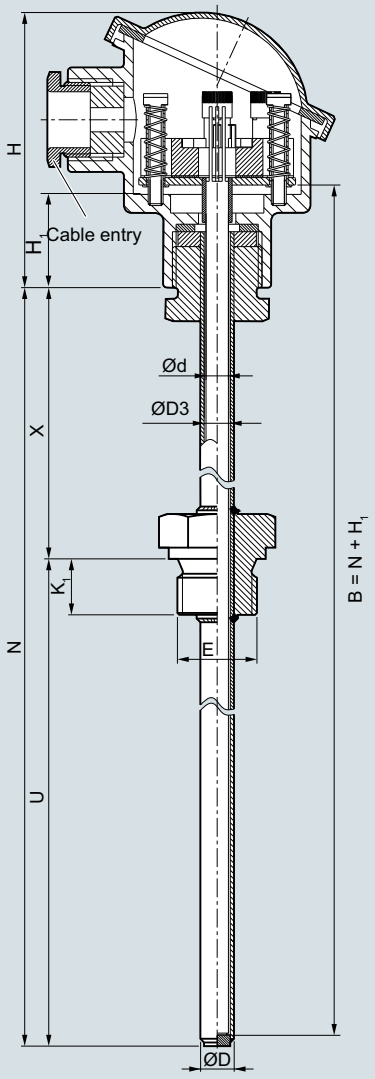
[1] Please select Ex i version of the optional transmitter.

[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 2/40.
Accessories, see page 2/251.

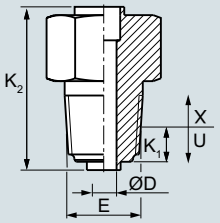
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Dimensional drawings



B	Measuring insert length
Ød	Measuring insert outer, diameter (6 (0.24))
ØD	Process connection, outer diameter
ØD3	Thermowell internal diameter
E	Process connection, thread size
H	Head height
H_1	Type Axx = 41 (1.61) Type Bxx = 26 (1.02)
K_1	Screw depth
N	Nominal length
U	Insertion length
X	Extension length, floor strength 3 mm

SITRANS TS500, temperature sensors for vessels and pipes, tubular thermowell for low to medium stress, according to DIN 43772, type 2G, screwed design, with extension, for screw-in depth dimensions, see page 2/15, dimensions in mm (inch).



Process connection conical, dimensions in mm (inch)

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Type 2G, screwed design, with extension

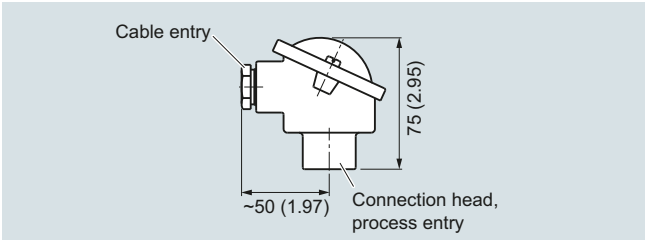
Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	**7MC751-**	
Tubular thermowell, low to medium stress, according to DIN 43722, Type 2G, screwed design, with extension	■ - ■■■■■ -	■■■ ■■■
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.		
Material, in contact with media		
316Ti (1.4571)	**1**	
316L (1.4404 or 1.4435)	**2**	
Process connection		
Cylindrical: G½" (½" BSPP)	**1 C**	
Cylindrical: G¾" (¾" BSPP)	**1 D**	
Tapered: NPT½"	**1 J**	
Tapered: NPT¾"	**1 K**	
Tapered: NPT1"	**1 L**	
Cylindrical: M20 x 1.5	**1 V**	
Cylindrical: M27 x 2.0	**1 W**	
Cylindrical: M33 x 2.0	**1 Y**	
Thermowell form		
2G, 9 mm (0.35 inch)	**A**	
2G, 12 mm (0.47 inch)	**B**	
Insertion length U standard		
160 mm (6.30 inch)	**0 4**	
250 mm (9.84 inch)	**1 2**	
400 mm (15.75 inch)	**2 2**	
Insertion length U customer-specific		
enter customer specific length with Y44, see page 2/68 Order codes		
80 ... 100 mm (3.15 ... 3.94 inch) Initial: 100 mm (3.94 inch)	**0 1**	
101 ... 120 mm (3.98 ... 4.72 inch) Initial: 120 mm (4.72 inch)	**0 2**	
121 ... 140 mm (4.76 ... 5.51 inch) Initial: 140 mm (5.51 inch)	**0 3**	
141 ... 160 mm (5.55 ... 6.30 inch) Initial: 160 mm (6.30 inch)	**0 4**	
161 ... 180 mm (6.34 ... 7.09 inch) Initial: 180 mm (7.09 inch)	**0 5**	
181 ... 200 mm (7.13 ... 7.87 inch) Initial: 200 mm (7.87 inch)	**0 6**	
201 ... 220 mm (7.91 ... 8.66 inch) Initial: 220 mm (8.66 inch)	**0 7**	
221…240 mm (8.70 ... 9.45 inch) Initial: 225 mm (8.86 inch)	**1 1**	
241…260 mm (9.49 ... 10.24 inch) Initial: 250 mm (9.84 inch)	**1 2**	
261…280 mm (10.28 ...11.02 inch) Initial: 280 mm (11.02 inch)	**1 3**	
281…300 mm (11.06 ... 11.81 inch) Initial: 285 mm 11.22 inch)	**1 4**	
301…320 mm (11.85 ... 13.00 inch) Initial: 315 mm (12.40 inch)	**1 5**	
321…340 mm (12.64 ... 13.39 inch) Initial: 340 mm (13.39 inch)	**1 6**	
341…360 mm (13.43 ... 14.17 inch) Initial: 360 mm (14.17 inch)	**2 0**	
361…380 mm (14.21 ... 14.96 inch) Initial: 380 mm (14.96 inch)	**2 1**	
381…400 mm (14.99 ... 15.75 inch) Initial: 400 mm (15.75 inch)	**2 2**	
401…420 mm (15.79 ... 16.54 inch) Initial: 420 mm (16.54 inch)	**2 3**	
421…440 mm (16.57 ... 17.32 inch) Initial: 440 mm (17.32 inch)	**2 4**	
441…460 mm (17.36 ... 18.11 inch) Initial: 460 mm (18.11 inch)	**2 5**	
461…480 mm (18.15 ... 18.90 inch) Initial: 465 mm (18.30 inch)	**2 6**	
481…500 mm (18.94 ... 19.69 inch) Initial: 500 mm (19.69 inch)	**2 7**	

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	**7MC751-**	
Tubular thermowell, low to medium stress, according to DIN 43722, Type 2G, screwed design, with extension	■ - ■■■■■ -	■■■ ■■■
501…550 mm (19.72 ... 21.65 inch) Initial: 510 mm (20.08 inch)	**3 1**	
551…600 mm (21.69 ... 23.62 inch) Initial: 600 mm (23.62 inch)	**3 2**	
601…650 mm (23.66 ... 25.59 inch) Initial: 650 mm (25.59 inch)	**3 3**	
651…700 mm (25.63 ... 27.56 inch) Initial: 700 mm (27.56 inch)	**3 4**	
701…750 mm (27.60 ... 29.53 inch) Initial: 750 mm (29.53 inch)	**3 5**	
751…800 mm (29.57 ... 31.50 inch) Initial: 800 mm (31.50 inch)	**3 6**	
801…850 mm (31.54 ... 33.46 inch) Initial: 850 mm (33.46 inch)	**3 7**	
851…900 mm (33.50 ... 35.43 inch) Initial: 900 mm (35.43 inch)	**4 1**	
901…950 mm (35.47 ... 37.40 inch) Initial: 950 mm (37.40 inch)	**4 2**	
951…1 000 mm (37.44 ... 39.37 inch) Initial: 1 000 mm (39.37 inch)	**4 3**	
1 001…1 100 mm (39.41 ... 43.31 inch) Initial: 1 100 mm (43.31 inch)	**4 4**	
1 101…1 200 mm (43.35 ... 47.24 inch) Initial: 1 200 mm (47.24 inch)	**4 5**	
1 201…1 300 mm (47.28 ... 51.18 inch) Initial: 1 300 mm (51.18 inch)	**4 6**	
1 301…1 400 mm (51.22 ... 55.12 inch) Initial: 1 400 mm (55.12 inch)	**4 7**	
1 401…1 500 mm (55.16 ... 59.05 inch) Initial: 1 500 mm (59.05 inch)	**5 1**	
Extension X		
Standard length for Type 2G DIN 43772 (X=129 mm (5.08 inch))	**1**	
Extension length X - customer specific		
enter customer specific length with Y45, see page 2/68 Order codes		
75 ...150 mm (2.95 ... 5.91 inch) Initial: 150 mm (5.91 inch)	**9**	**N 1 D**
151 ... 300 mm (5.95 ... 11.81 inch) Initial: 300 mm (11.81 inch)	**9**	**N 2 D**
301 ... 450 mm (11.85 ... 17.72 inch) Initial: 450 mm (17.72 inch)	**9**	**N 3 D**

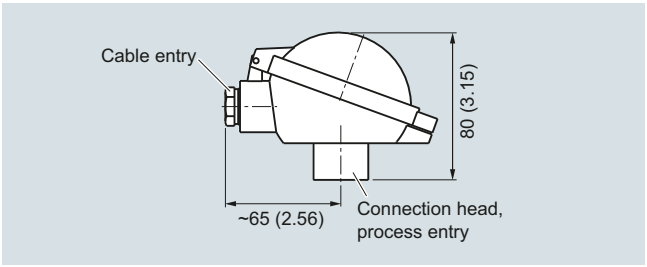
Additional configurations on page after next page.

You find ordering examples on page 2/40.

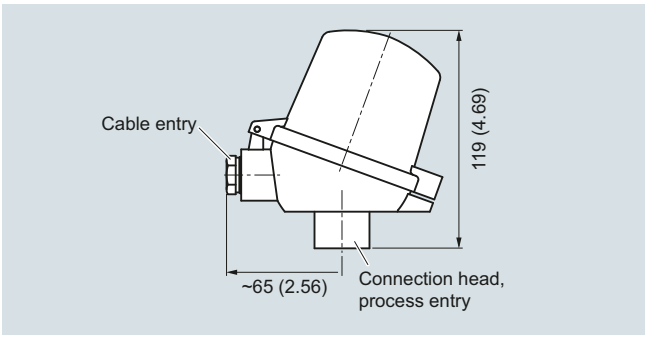
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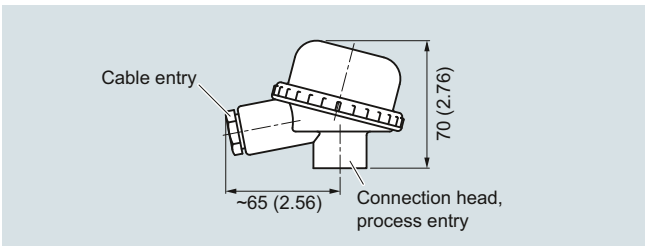
Connection head, aluminum, Type BA0, dimensions in mm (inch)



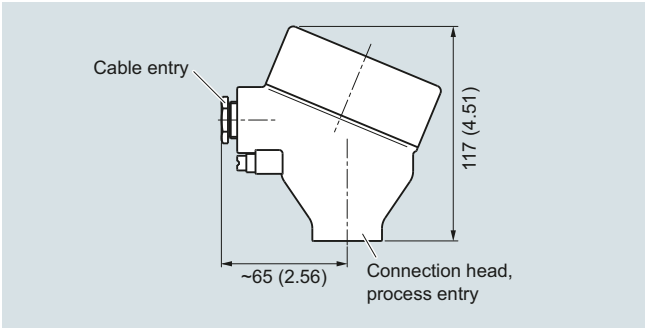
Connection head, aluminum, Type BB0, dimensions in mm (inch)



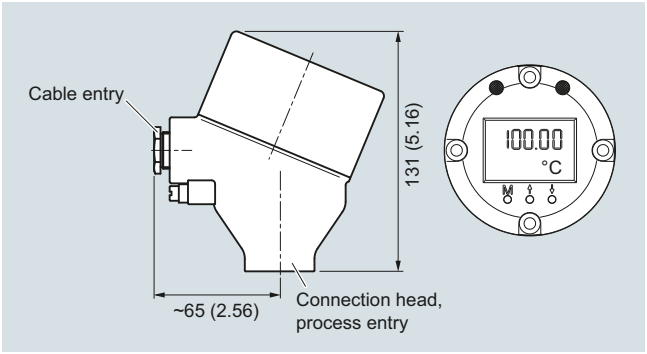
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



Connection head, plastic, Type BM0, dimensions in mm (inch)



Connection head, aluminum, Type AG0, stainless steel, Type AU0, dimensions in mm (inch)



Connection head with 4-20 mA display, aluminum, Type AH0, stainless steel, Type AV0, dimensions in mm (inch)

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Type 2G, screwed design, with extension

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500 **Tubular thermowell, low to medium stress, according to DIN 43722, Type 2G, screwed design, with extension**	**7MC751-** ■ - ■■■■■ - ■■■■	
Head		
Aluminum head, BA0, flange cover, Standard		**A**
Aluminum head, BB0, low hinged cover, screw connection		**B**
Aluminum head, BC0, high hinged cover, screw connection		**C**
Aluminum head, AG0, screw cover, suitable for Ex d[1]		**G**
Aluminum head, AH0, screw cover, suitable for Ex d, display[1]		**H**
Plastic head, BM0, screw cover		**M**
Plastic head, BP0high hinged cover, screw connection		**P**
Stainless steel head, AU0, screw cconnection typesver, suitable for Ex d[1]		**U**
Stainless steel head, AV0, screw cover, suitable for Ex d, display[1]		**V**
Sensor[2] 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)		**A**
Pt100, vibration resistant, -50 ... +400 °C (-58 ... +752 °F)		**B**
Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F)		**C**
Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F)		**K**
Thermocouple Type J, -40 ... +750 °C (-40 ... +1 382 °F)		**J**
Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832 °F)		**N**
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)		**1**
Single, increased accuracy (Class 1/Class A)		**2**
Single, highest accuracy (Class AA)		**3**
Double, basic accuracy (Class 2/Class B)		**5**
Double, increased accuracy (Class 1/Class A)		**6**
Double, highest accuracy (Class AA)		**7**

[1] Ex d in connection with Order code E03

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

Selection and Ordering data	Order code
Further designs	
Add "**-Z**" to Article No. and specify Order code.	
Insertion length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y44**
Extension X length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y45**
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, input 1 x Pt100, 4 ... 20 mA	**T12**
SITRANS TH320, input 1 x universal, 4 ... 20 mA	**T24**
SITRANS TH320, input 1 x universal, HART	**T34**
SITRANS TH420, input 2 x universal, HART	**T35**
SITRANS TH400, input 1 x universal, PA	**T40**
SITRANS TH400, input 1 x universal, PA, Ex	**T41**
SITRANS TH400, input 1 x universal, FF	**T45**
SITRANS TH400, input 1 x universal, FF, Ex	**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**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to ATEX and IECEx (Europe, Australia, New Zealand)	**E03**
Non-sparking "ec" according to ATEX and IECEx (Europe, Australia, New Zealand)	**E04**
Without explosion protection requirements (USA, Canada) Basis FM	**E10**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cFMus (USA, Canada); other connections (M,G,R)	**E14**
Non-sparking "nA"/"NI" according to cFMus (USA, Canada)	**E16**
Without explosion protection requirements (USA, Canada), Basis CSA	**E17**
Intrinsic safety "i"/"IS"[1] according to cCSAus (USA, Canada)	**E18**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cCSAus (USA); other connections (M, G, R)	**E21**
Non-sparking "nA"/"NI" according to cCSAus (USA, Canada)	**E23**
Without explosion protection requirements (China)	**E54**
Intrinsic safety "i"/"IS"[1] according to NEPSI (China)	**E55**
Flameproof enclosure "d"; dust protection through housing "t"[2] according to NEPSI (China)	**E56**
Non-sparking "nA"/"NI" according to NEPSI (China)	**E57**
Without explosion protection requirements (EAC)	**E80**
Intrinsic safety "i"/"IS"[1] according to EACEx (EAC)	**E81**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to EACEx (EAC)	**E82**
Non-sparking "nA"/"NI" according to EACEx (EAC)	**E83**
Marine approvals	
Det Norske Veritas Germanischer Lloyd (DNV GL)	**D01**

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Selection and Ordering data	Order code
Certificates and approvals	
EN 10204-3.1 Inspection certificate for materials coming into contact with media	**C12**
EN 10204-3.1 Inspection certificate for hydrostatic pressure test	**C31**
EN 10204-3.1 Inspection certificate for helium leak test	**C32**
EN 10204-3.1 Inspection certificate for dye-penetration-test	**C33**
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**
EN 10204-3.1 Acceptance test certificate "Positive Materials Identification" (PMI)	**On request**
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), marking on the device when Order code "Y15" is selected	**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**
SITRANS TH320/420 transmitter with SIL2/3 certificate	**C20**
Transmitter test protocol (5 points)	**C11**
Further options	
Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs)	**G01**
M12 device plug (in combination with transmitter, Non-Ex and intrinsically safe, max. IP65/67)	**G12**
Han 7D device plug (Non Ex and intrinsically safe, without mating connector max. IP65/67)	**G13**
Connection head with ½" NPT thread without cable gland, for AU0 and AH0 only IP66	**G20**
with outer earth screw for heads AG0, AH0, AU0 and AV0	**A02**
with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	**A03**
Option not found?	
Handling number special version	**Y99**

1) Please select Ex i version of the optional transmitter.

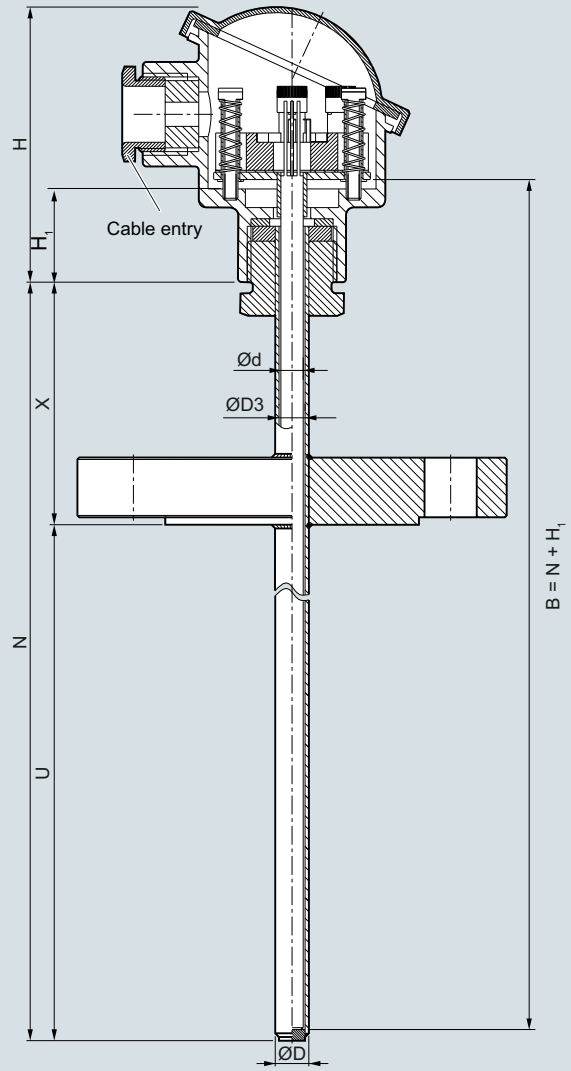
2) Only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter).

You find ordering examples on page 2/40.
Accessories, see page 2/251.

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Type 2F, with flange and extension

Dimensional drawings



B	Measuring insert length
Ød	Measuring insert outer diameter (6 (0.24))
ØD	Process connection outer diameter
ØD3	Thermowell internal diameter
H	Head height
H_1	Type Axx = 41 (1.61) Type Bxx = 26 (1.02)
N	Nominal length
U	Insertion length
X	Extension length, floor strength 3 mm

SITRANS TS500, temperature sensors for vessels and pipes, tubular thermowell for low to medium stress, according to DIN 43772, type 2F, with flange, with extension, dimensions in mm (inch)

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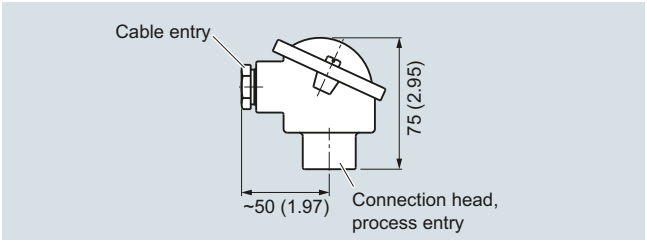
Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	**7MC751-**	
Tubular thermowell, low to medium stress, according to DIN 43722, Type 2F, with flange, with extension	■ - ■■■■■ -	■■■■ ■■■
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.		
Material, in contact with media		
316Ti (1.4571)	**1**	
316L (1.4404 or 1.4435)	**2**	
Process connection		
Flange EN; DN 25 PN10 ... 40 B1	**2 A**	
Flange EN; DN 40 PN 40 B1	**2 B**	
Flange EN; DN 50 PN 40 B1	**2 C**	
Flange ASME; 1.0" RF 150	**2 E**	
Flange ASME; 1.0" RF 300	**2 F**	
Flange ASME; 1.5" RF 150	**2 G**	
Flange ASME; 1.5" RF 300	**2 H**	
Flange ASME; 2.0" RF 150	**2 J**	
Flange ASME; 2.0" RF 300	**2 K**	
Flange ASME; 1.0" RF 600	**2 L**	
Flange ASME; 1.5" RF 600	**2 N**	
Flange ASME; 1.5" RF 900	**2 R**	
Flange ASME; 2.0" RF 600	**2 S**	
Flange ASME; 2.0" RF 900	**2 T**	
Flange EN; DN 32 PN 40 B1	**4 A**	
Flange EN; DN 40 PN 100 B1	**4 B**	
Flange EN; DN 50 PN 16 B1	**4 C**	
Flange EN; DN 80 PN 16 B1	**4 D**	
Flange EN; DN 100 PN 16 B1	**4 E**	
Thermowell form		
2F, 9 mm (0.35 inch)	**A**	
2F, 12 mm (0.47 inch)	**B**	
Insertion U standard		
225 mm (8.86 inch)	**1 1**	
315 mm (12.40 inch)	**1 5**	
465 mm (18.31 inch)	**2 6**	
Insertion length U customer-specific enter customer specific length with Y44, see page 2/73 Order codes		
80 ... 100 mm (3.15 ... 3.94 inch) Initial: 100 mm (3.94 inch)	**0 1**	
101 ... 120 mm (3.98 ... 4.72 inch) Initial: 120 mm (4.72 inch)	**0 2**	
121 ... 140 mm (4.76 ... 5.51 inch) Initial: 140 mm (5.51 inch)	**0 3**	
141 ... 160 mm (5.55 ... 6.30 inch) Initial: 160 mm (6.30 inch)	**0 4**	
161 ... 180 mm (6.34 ... 7.09 inch) Initial: 180 mm (7.09 inch)	**0 5**	
181 ... 200 mm (7.13 ... 7.87 inch) Initial: 200 mm (7.87 inch)	**0 6**	
201 ... 220 mm (7.91 ... 8.66 inch) Initial: 220 mm (8.66 inch)	**0 7**	
221…240 mm (8.70 ... 9.45 inch) Initial: 225 mm (8.86 inch)	**1 1**	
241…260 mm (9.49 ... 10.24 inch) Initial: 250 mm (9.84 inch)	**1 2**	
261…280 mm (10.28 ...11.02 inch) Initial: 280 mm (11.02 inch)	**1 3**	
281…300 mm (11.06 ... 11.81 inch) Initial: 285 mm 11.22 inch)	**1 4**	
301…320 mm (11.85 ... 13.00 inch) Initial: 315 mm (12.40 inch)	**1 5**	
321…340 mm (12.64 ... 13.39 inch) Initial: 340 mm (13.39 inch)	**1 6**	
341…360 mm (13.43 ... 14.17 inch) Initial: 360 mm (14.17 inch)	**2 0**	
361…380 mm (14.21 ... 14.96 inch) Initial: 380 mm (14.96 inch)	**2 1**	
381…400 mm (14.99 ... 15.75 inch) Initial: 400 mm (15.75 inch)	**2 2**	
401…420 mm (15.79 ... 16.54 inch) Initial: 420 mm (16.54 inch)	**2 3**	
421…440 mm (16.57 ... 17.32 inch) Initial: 440 mm (17.32 inch)	**2 4**	
441…460 mm (17.36 ... 18.11 inch) Initial: 460 mm (18.11 inch)	**2 5**	
461…480 mm (18.15 ... 18.90 inch) Initial: 465 mm (18.30 inch)	**2 6**	
481…500 mm (18.94 ... 19.69 inch) Initial: 500 mm (19.69 inch)	**2 7**	
501…550 mm (19.72 ... 21.65 inch) Initial: 510 mm (20.08 inch)	**3 1**	
551…600 mm (21.69 ... 23.62 inch) Initial: 600 mm (23.62 inch)	**3 2**	
601…650 mm (23.66 ... 25.59 inch) Initial: 650 mm (25.59 inch)	**3 3**	
651…700 mm (25.63 ... 27.56 inch) Initial: 700 mm (27.56 inch)	**3 4**	
701…750 mm (27.60 ... 29.53 inch) Initial: 750 mm (29.53 inch)	**3 5**	
751…800 mm (29.57 ... 31.50 inch) Initial: 800 mm (31.50 inch)	**3 6**	
801…850 mm (31.54 ... 33.46 inch) Initial: 850 mm (33.46 inch)	**3 7**	
851…900 mm (33.50 ... 35.43 inch) Initial: 900 mm (35.43 inch)	**4 1**	
901…950 mm (35.47 ... 37.40 inch) Initial: 950 mm (37.40 inch)	**4 2**	
951…1 000 mm (37.44 ... 39.37 inch) Initial: 1 000 mm (39.37 inch)	**4 3**	
1 001…1 100 mm (39.41 ... 43.31 inch) Initial: 1 100 mm (43.31 inch)	**4 4**	
1 101…1 200 mm (43.35 ... 47.24 inch) Initial: 1 200 mm (47.24 inch)	**4 5**	
1 201…1 300 mm (47.28 ... 51.18 inch) Initial: 1 300 mm (51.18 inch)	**4 6**	
1 301…1 400 mm (51.22 ... 55.12 inch) Initial: 1 400 mm (55.12 inch)	**4 7**	
1 401…1 500 mm (55.16 ... 59.05 inch) Initial: 1 500 mm (59.05 inch)	**5 1**	
Extension X		
Standard length for Type 2F DIN 43772 (X=64 mm (2.52 inch))	**1**	
Extension length X - customer specific enter customer specific length with Y45, see page 2/73 Order codes		
75 ...150 mm (2.95 ... 5.91 inch) Initial: 150 mm (5.91 inch)	**9**	**N 1 D**
151 ... 300 mm (5.95 ... 11.81 inch) Initial: 300 mm (11.81 inch)	**9**	**N 2 D**
301 ... 450 mm (11.85 ... 17.72 inch) Initial: 450 mm (17.72 inch)	**9**	**N 3 D**

Additional configurations on page after next page!

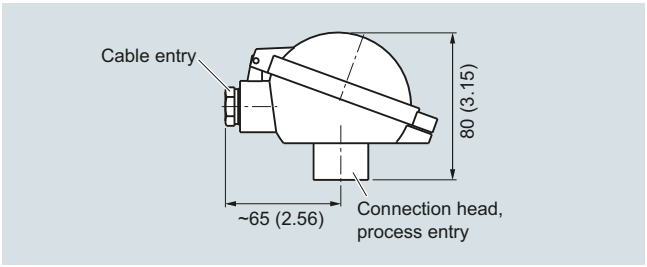
You find ordering examples on page 2/40!

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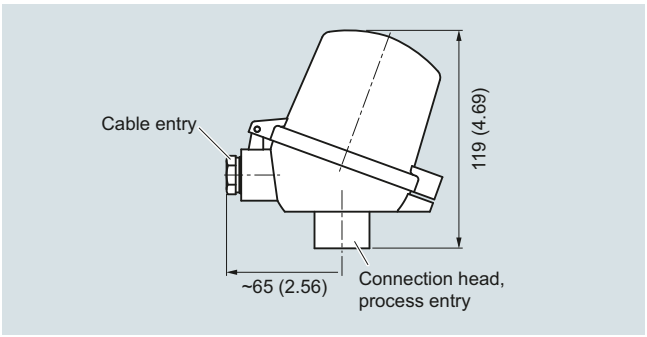
Type 2F, with flange and extension



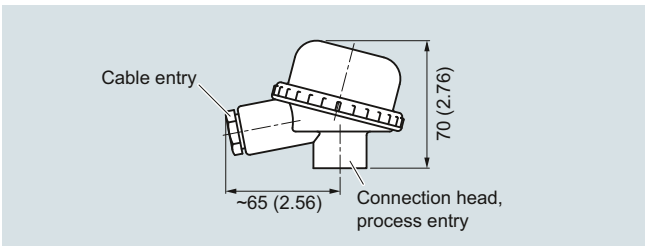
Connection head, aluminum, Type BA0, dimensions in mm (inch)



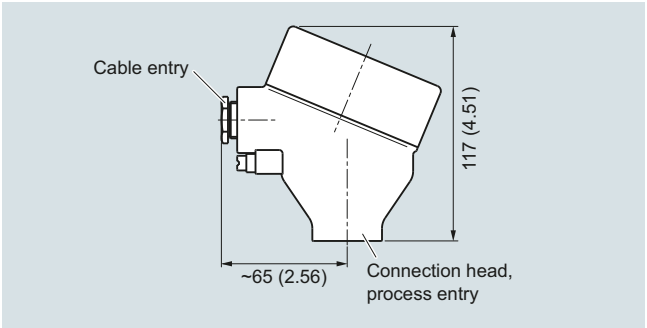
Connection head, aluminum, Type BB0, dimensions in mm (inch)



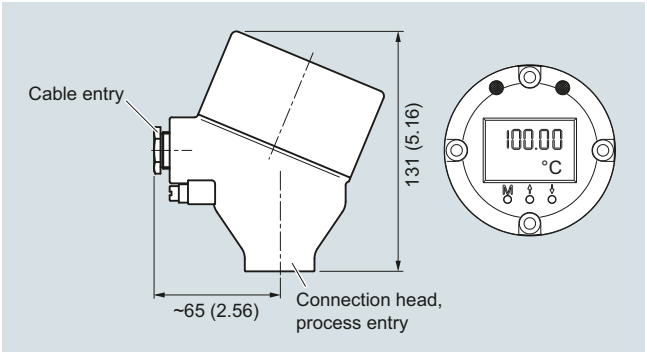
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



Connection head, plastic, Type BM0, dimensions in mm (inch)



Connection head, aluminum, Type AG0, stainless steel, Type AU0, dimensions in mm (inch)



Connection head with 4-20 mA display, aluminum, Type AH0, stainless steel, Type AV0, dimensions in mm (inch)

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Selection and Ordering data	Article No.
SITRANS TS500	**7MC751-**
Tubular thermowell, low to medium stress, according to DIN 43722, Type 2F, with flange, with extension	■ - ■■■■■ - ■■■■ ■■■
Head	
Aluminum head, BA0, flange cover, Standard	**A**
Aluminum head, BB0, low hinged cover, screw connection	**B**
Aluminum head, BC0, high hinged cover, screw connection	**C**
Aluminum head, AG0, screw cover, suitable for Ex d[1]	**G**
Aluminum head, AH0, screw cover, suitable for Ex d, display[1]	**H**
Plastic head, BM0, screw cover	**M**
Plastic head, BP0high hinged cover, screw connection	**P**
Stainless steel head, AU0, screw cover, suitable for Ex d[1]	**U**
Stainless steel head, AV0, screw cover, suitable for Ex d, display[1]	**V**
Sensor[2]	
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)	**A**
Pt100, vibration resistant, -50 ... +400 °C (-58 ... +752 °F)	**B**
Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F)	**C**
Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F)	**K**
Thermocouple Type J, -40 ... +750 °C (-40 ... +1 382 °F)	**J**
Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832 °F)	**N**
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)	**1**
Single, increased accuracy (Class 1/Class A)	**2**
Single, highest accuracy (Class AA)	**3**
Double, basic accuracy (Class 2/Class B)	**5**
Double, increased accuracy (Class 1/Class A)	**6**
Double, highest accuracy (Class AA)	**7**

[1] Ex d in connection with Order code E03

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

Selection and Ordering data	Order code
Further designs	
Add "**-Z**" to Article No. and specify Order code.	
Insertionlength customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y44**
Extension X length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y45**
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, input 1 x Pt100, 4 ... 20 mA	**T12**
SITRANS TH320, input 1 x universal, 4 ... 20 mA	**T24**
SITRANS TH320, input 1 x universal, HART	**T34**
SITRANS TH420, input 2 x universal, HART	**T35**
SITRANS TH400, input 1 x universal, PA	**T40**
SITRANS TH400, input 1 x universal, PA, Ex	**T41**
SITRANS TH400, input 1 x universal, FF	**T45**
SITRANS TH400, input 1 x universal, FF, Ex	**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**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to ATEX and IECEx (Europe, Australia, New Zealand)	**E03**
Non-sparking "ec" according to ATEX and IECEx (Europe, Australia, New Zealand)	**E04**
Without explosion protection requirements (USA, Canada) Basis FM	**E10**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cFMus (USA, Canada); other connections (M,G,R)	**E14**
Non-sparking "nA"/"NI" according to cFMus (USA,Canada)	**E16**
Without explosion protection requirements (USA, Canada), Basis CSA	**E17**
Intrinsic safety "i"/"IS"[1] according to cCSAus (USA, Canada)	**E18**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cCSAus (USA); other connections (M, G, R)	**E21**
Non-sparking "nA"/"NI" according to cCSAus (USA, Canada)	**E23**
Without explosion protection requirements (China)	**E54**
Intrinsic safety "i"/"IS"[1] according to NEPSI (China)	**E55**
Flameproof enclosure "d"; dust protection through housing "t"[2] according to NEPSI (China)	**E56**
Non-sparking "nA"/"NI" according to NEPSI (China)	**E57**
Without explosion protection requirements (EAC)	**E80**
Intrinsic safety "i"/"IS"[1] according to EACEx (EAC)	**E81**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to EACEx (EAC)	**E82**
Non-sparking "nA"/"NI" according to EACEx (EAC)	**E83**
Marine approvals	
Det Norske Veritas Germanischer Lloyd (DNV GL)	**D01**

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Type 2F, with flange and extension

Selection and Ordering data	Order code
Certificates and approvals	
EN 10204-3.1 Inspection certificate for materials coming into contact with media	**C12**
EN 10204-3.1 Inspection certificate for hydrostatic pressure test	**C31**
EN 10204-3.1 Inspection certificate for helium leak test	**C32**
EN 10204-3.1 Inspection certificate for dye-penetration-test	**C33**
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**
EN 10204-3.1 Acceptance test certificate "Positive Materials Identification" (PMI)	**On request**
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), marking on the device when Order code "Y15" is selected	**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**
SITRANS TH320/420 transmitter with SIL2/3 certificate	**C20**
Transmitter test protocol (5 points)	**C11**
Further options	
Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs)	**G01**
M12 device plug (in combination with transmitter, Non-Ex and intrinsically safe, max. IP65/67)	**G12**
Han 7D device plug (Non Ex and intrinsically safe, without mating connector max. IP65/67)	**G13**
Connection head with ½" NPT thread without cable gland, for AU0 and AH0 only IP66	**G20**
with outer earth screw for heads AG0, AH0, AU0 and AV0	**A02**
with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	**A03**
Option not found?	
Handling number special version	**Y99**

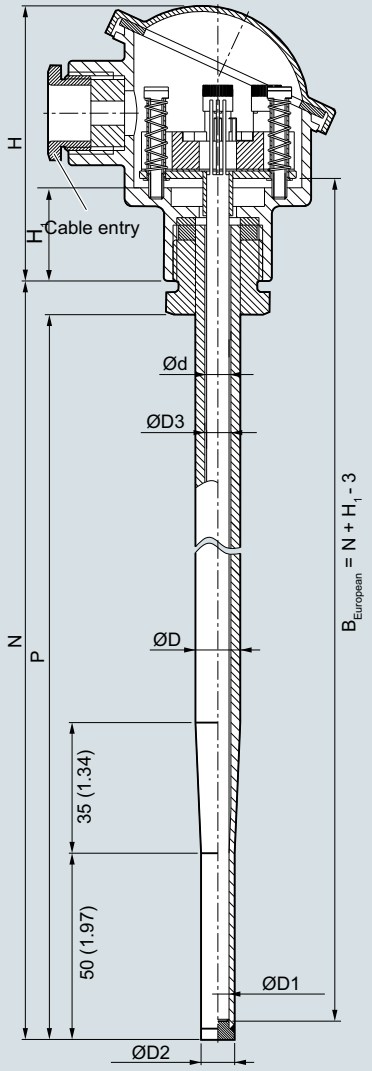
1) Please select Ex i version of the optional transmitter.

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 2/40.
Accessories, see page 2/251.

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Dimensional drawings



B	Measuring insert length
Ød	Measuring insert outer diameter (6 (0.24))
ØD	Process connection outer diameter
ØD1	Tip internal diameter
ØD2	Tip outer diameter
ØD3	Thermowell internal diameter
H	Head height
H_1	Type Axx> 41 (1.61) Type Bxx> 26 (1.02)
N	Nominal length
P	Space for process connection, floor strength 6 mm

SITRANS TS500, temperature sensors for vessels and pipes, tubular thermowell for low to medium stress, without process connection, without extension, plug-in or for use with sliding compression joints, dimensions in mm (inch)

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Type 3, fast response, without process connection

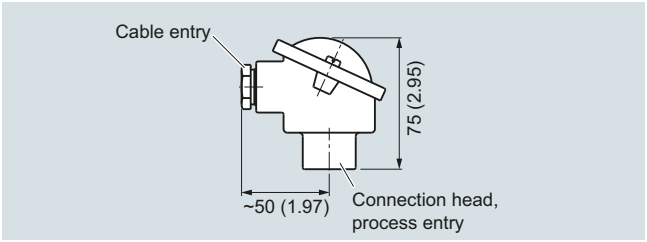
Selection and Ordering data	Article No.
SITRANS TS500	**7MC751-**
Tubular thermowell for low to medium stress, according to DIN 43722, Type 3, without process connection, improved response time, plug-in or use with moveable compression fittings	-
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	
Material, in contact with media	
316Ti (1.4571)	1
316L (1.4404 or 1.4435)	2
Process connection	
Without process connection (for compression joints) N=U	0 N
Thermowell form	
3, 12/9 mm (0.47/0.35 inch)	K
Insertion length U (=N), Standard	
160 mm (6.3 inch)	0 4
220 mm (8.66 inch)	0 7
280 mm (11.02 inch)	1 3
Insertion length U (=N), customer-specific enter customer specific length with Y44, see page 2/78 Order codes	
121 ... 140 mm (4.76 ... 5.51 inch) Initial: 140 mm (5.51 inch)	0 3
141 ... 160 mm (5.55 ... 6.30 inch) Initial: 160 mm (6.3 inch)	0 4
161 ... 180 mm (6.34 ... 7.09 inch) Initial: 180 mm (7.09 inch)	0 5
181 ... 200 mm (7.13 ... 7.87 inch) Initial: 200 mm (7.87 inch)	0 6
201 ... 220 mm (7.91 ... 8.66 inch) Initial: 220 mm (8.66 inch)	0 7
221 ... 240 mm (8.7 ... 9.45 inch) Initial: 225 mm (8.86 inch)	1 1
241 ... 260 mm (9.48 ... 10.24 inch) Initial: 250 mm (9.84 inch)	1 2
261 ... 280 mm (10.28 ... 11.02 inch) Initial: 280 mm (11.02 inch)	1 3
281 ... 300 mm (11.02 ... 11.81 inch) Initial: 285 mm (11.22 inch)	1 4
301 ... 320 mm (11.85 ... 12.6 inch) Initial: 315 mm (12.4 inch)	1 5
321 ... 340 mm (12.64 ... 13.39 inch) Initial: 340 mm (13.39 inch)	1 6
341 ... 360 mm (13.43 ... 14.17 inch) Initial: 360 mm (14.17 inch)	2 0
361 ... 380 mm (14.21 ... 14.96 inch) Initial: 380 mm (14.96 inch)	2 1

Selection and Ordering data	Article No.
SITRANS TS500	**7MC751-**
Tubular thermowell for low to medium stress, according to DIN 43722, Type 3, without process connection, improved response time, plug-in or use with moveable compression fittings	-
381 ... 400 mm (15 ... 15.75 inch) Initial: 400 mm (15.75 inch)	2 2
401 ... 420 mm (15.79 ... 16.54 inch) Initial: 420 mm (16.54 inch)	2 3
421 ... 440 mm (16.57 ... 17.32 inch) Initial: 440 mm (17.32 inch)	2 4
441 ... 460 mm (17.36 ... 18.11 inch) Initial: 460 mm (18.11 inch)	2 5
461 ... 480 mm (18.15 ... 18.90 inch) Initial: 465 mm (18.30 inch)	2 6
481 ... 500 mm (18.94 ... 19.68 inch) Initial: 500 mm (19.68 inch)	2 7
501 ... 550 mm (19.72 ... 21.65 inch) Initial: 510 mm (20.08 inch)	3 1
551 ... 600 mm (21.69 ... 23.62 inch) Initial: 600 mm (23.62 inch)	3 2
601 ... 650 mm (23.66 ... 25.59 inch) Initial: 650 mm (25.59 inch)	3 3
651 ... 700 mm (25.63 ... 27.56 inch) Initial: 700 mm (27.56 inch)	3 4
701 ... 750 mm (27.6 ... 29.53 inch) Initial: 750 mm (29.53 inch)	3 5
751 ... 800 mm (29.57 ... 31.50 inch) Initial: 800 mm (31.50 inch)	3 6
801 ... 850 mm (31.53 ... 33.46 inch) Initial: 850 mm (33.46 inch)	3 7
851 ... 900 mm (33.50 ... 35.43 inch) Initial: 900 mm (35.43 inch)	4 1
901 ... 950 mm (35.47 ... 37.40 inch) Initial: 950 mm (37.40 inch)	4 2
951 ... 1 000 mm (37.44 ... 39.37 inch) Initial: 1 000 mm (39.37 inch)	4 3
1 001 ... 1 100 mm (39.41 ... 43.31 inch) Initial: 1 100 mm (43.31 inch)	4 4
Extension Standard length for Type 2 as per DIN 43722 (without extension N=U)	0

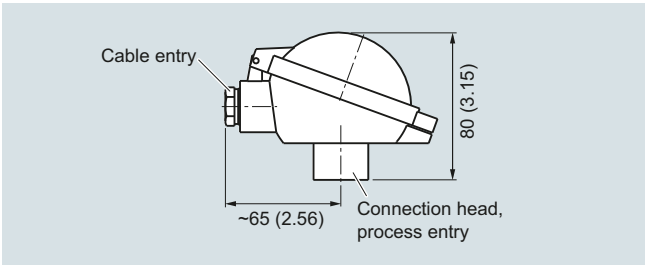
Additional configurations on page after next page!

You find ordering examples on page 2/40!

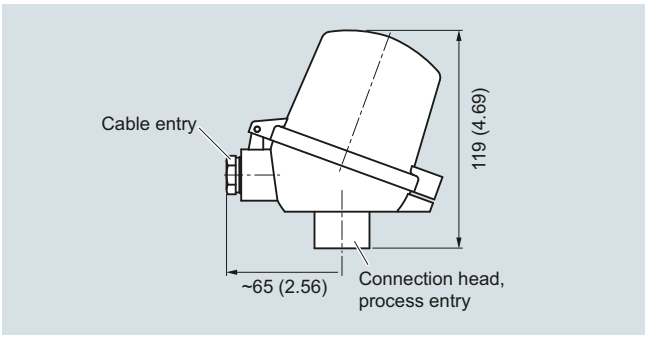
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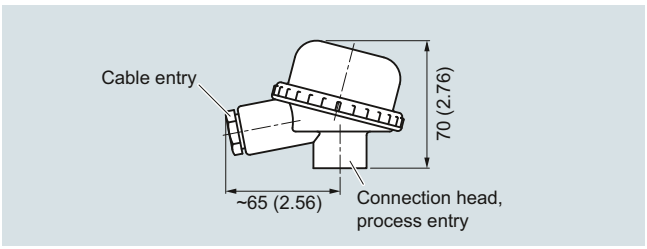
Connection head, aluminum, Type BA0, dimensions in mm (inch)



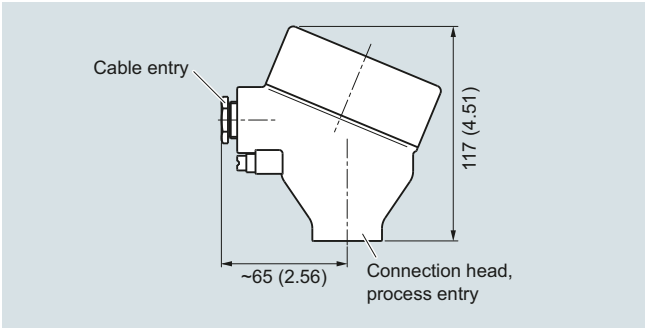
Connection head, aluminum, Type BB0, dimensions in mm (inch)



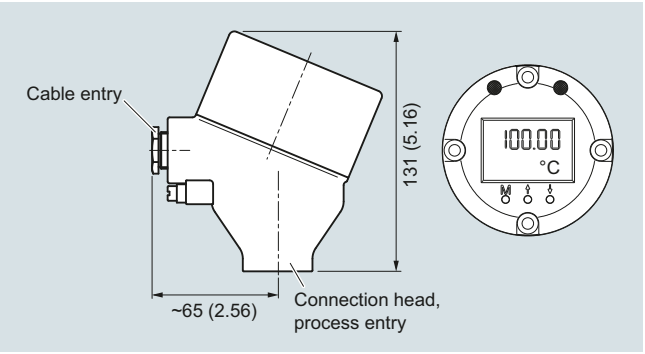
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



Connection head, plastic, Type BM0, dimensions in mm (inch)



Connection head, aluminum, Type AG0, stainless steel, Type AU0, dimensions in mm (inch)



Connection head with 4-20 mA display, aluminum, Type AH0, stainless steel, Type AV0, dimensions in mm (inch)

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Type 3, fast response, without process connection

Selection and Ordering data	Article No.
SITRANS TS500	**7MC751-**
Tubular thermowell for low to medium stress, according to DIN 43722, Type 3, without process connection, improved response time, plug-in or use with moveable compression fittings	■ - ■■■■■ - ■■■■
Head	
Aluminum head, BA0, flange cover, Standard	**A**
Aluminum head, BB0, low hinged cover, screw connection	**B**
Aluminum head, BC0, high hinged cover, screw connection	**C**
Aluminum head, AG0, screw cover, suitable for Ex d[1]	**G**
Aluminum head, AH0, screw cover, suitable for Ex d, display[1]	**H**
Plastic head, BM0, screw cover	**M**
Plastic head, BP0high hinged cover, screw connection	**P**
Stainless steel head, AU0, screw cover, Ex d[1]	**U**
Stainless steel head, AV0, screw cover, suitable for Ex d, display[1]	**V**
Sensor[2]	
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)	**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	
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)	**1**
Single, increased accuracy (Class 1/Class A)	**2**
Single, highest accuracy (Class AA)	**3**
Double, basic accuracy (Class 2/Class B)	**5**
Double, increased accuracy (Class 1/Class A)	**6**
Double, highest accuracy (Class AA)	**7**

[1] Ex d in connection with Order code E03

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

Selection and Ordering data	Order code
Further designs	
Add "**-Z**" to Article No. and specify Order code.	
Insertion length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y44**
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, input 1 x Pt100, 4 ... 20 mA	**T12**
SITRANS TH320, input 1 x universal, 4 ... 20 mA	**T24**
SITRANS TH320, input 1 x universal, HART	**T34**
SITRANS TH420, input 2 x universal, HART	**T35**
SITRANS TH400, input 1 x universal, PA	**T40**
SITRANS TH400, input 1 x universal, PA, Ex	**T41**
SITRANS TH400, input 1 x universal, FF	**T45**
SITRANS TH400, input 1 x universal, FF, Ex	**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**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to ATEX and IECEx (Europe, Australia, New Zealand)	**E03**
Non-sparking "ec" according to ATEX and IECEx (Europe, Australia, New Zealand)	**E04**
Without explosion protection requirements (USA, Canada) Basis FM	**E10**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cFMus (USA, Canada); other connections (M,G,R)	**E14**
Non-sparking "nA"/"NI" according to cFMus (USA, Canada)	**E16**
Without explosion protection requirements (USA, Canada), Basis CSA	**E17**
Intrinsic safety "i"/"IS"[1] according to cCSAus (USA, Canada)	**E18**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cCSAus (USA); other connections (M, G, R)	**E21**
Non-sparking "nA"/"NI" according to cCSAus (USA, Canada)	**E23**
Without explosion protection requirements (China)	**E54**
Intrinsic safety "i"/"IS"[1] according to NEPSI (China)	**E55**
Flameproof enclosure "d"; dust protection through housing "t"[2] according to NEPSI (China)	**E56**
Non-sparking "nA"/"NI" according to NEPSI (China)	**E57**
Without explosion protection requirements (EAC)	**E80**
Intrinsic safety "i"/"IS"[1] according to EACEx (EAC)	**E81**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to EACEx (EAC)	**E82**
Non-sparking "nA"/"NI" according to EACEx (EAC)	**E83**
Marine approvals	
Det Norske Veritas Germanischer Lloyd (DNV GL)	**D01**

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Selection and Ordering data	Order code
Certificates and approvals	
EN 10204-3.1 Inspection certificate for materials coming into contact with media	**C12**
EN 10204-3.1 Inspection certificate for hydrostatic pressure test	**C31**
EN 10204-3.1 Inspection certificate for helium leak test	**C32**
EN 10204-3.1 Inspection certificate for dye-penetration-test	**C33**
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**
EN 10204-3.1 Acceptance test certificate "Positive Materials Identification" (PMI)	**On request**
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), marking on the device when Order code "Y15" is selected	**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**
SITRANS TH320/420 transmitter with SIL2/3 certificate	**C20**
Transmitter test protocol (5 points)	**C11**
Further options	
Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs)	**G01**
M12 device plug (in combination with transmitter, Non-Ex and intrinsically safe, max. IP65/67)	**G12**
Han 7D device plug (Non Ex and intrinsically safe, without mating connector max. IP65/67)	**G13**
Connection head with ½" NPT thread without cable gland, for AU0 and AH0 only IP66	**G20**
with outer earth screw for heads AG0, AH0, AU0 and AV0	**A02**
with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	**A03**
Compression joint G½", enclosed	**A31**
Compression joint NPT½", enclosed	**A32**
Option not found?	
Handling number special version	**Y99**

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

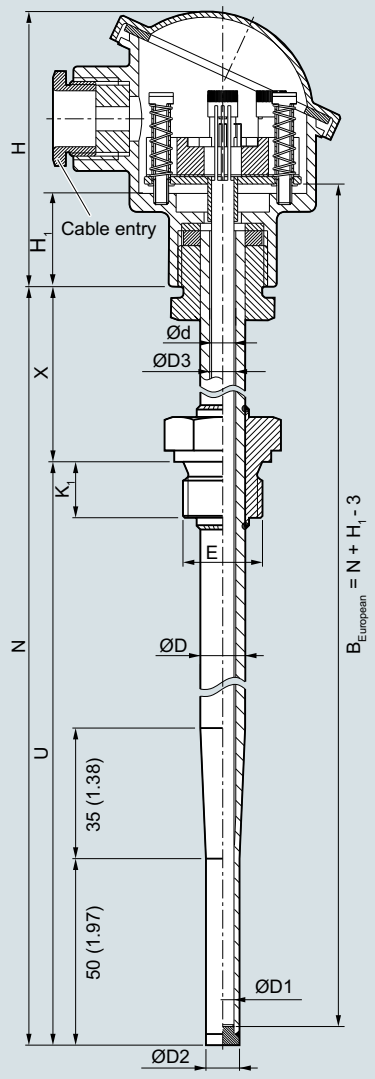
[2] Only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter).

You find ordering examples on page 2/40.
Accessories, see page 2/251.

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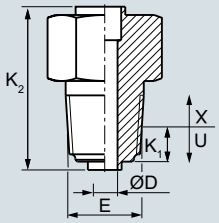
Type 3G, fast response, screwed design, with extension

Dimensional drawings



B	Measuring insert length
Ød	Measuring insert outer diameter (6 (0.24))
ØD	Process connection outer diameter
ØD1	Tip internal diameter
ØD2	Tip outer diameter
ØD3	Thermowell internal diameter
E	Process connection, thread size
H	Head height
H_1	Type Axx = 41 (1.61) Type Bxx = 26 (1.02)
K_1	Screw depth
N	Nominal length
U	Insertion length
X	Extension length, floor strength 6 mm

SITRANS TS500, temperature sensors for vessels and pipes, tubular thermowell for low to medium stress, according to DIN 43772, type 3G, screwed design, without process connection, with extension, for screw-in depth dimensions, see page 2/15, dimensions in mm (inch).



Process connection conical, dimensions in mm (inch)

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Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	**7MC751-**	
Tubular thermowell, low to medium stress, according to DIN 43722, Type 3G, screwed design, with extension	■ - ■■■■■ -	■■■ ■■■
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.		
Material, in contact with media		
316Ti (1.4571)	**1**	
316L (1.4404 or 1.4435)	**2**	
Process connection		
Cylindrical: G½" (½" BSPP)	**1 C**	
Cylindrical: G¾" (¾" BSPP)	**1 D**	
Tapered: NPT½"	**1 J**	
Tapered: NPT¾"	**1 K**	
Tapered: NPT1"	**1 L**	
Cylindrical: M20 x 1.5	**1 V**	
Cylindrical: M27 x 2.0	**1 W**	
Cylindrical: M33 x 2.0	**1 Y**	
Thermowell form		
3G, 12/9 mm (0.47/0.35 inch)	**K**	
Insertion length U standard		
160 mm (6.30 inch)	**0 4**	
220 mm (8.66 inch)	**0 7**	
280 mm (11.02 inch)	**1 3**	
Insertion length U customer-specific		
enter customer specific length with Y44, see page 2/83 Order codes		
121 ... 140 mm (4.76 ... 5.51 inch) Initial: 140 mm (5.51 inch)	**0 3**	
141 ... 160 mm (5.55 ... 6.30 inch) Initial: 160 mm (6.30 inch)	**0 4**	
161 ... 180 mm (6.34 ... 7.09 inch) Initial: 180 mm (7.09 inch)	**0 5**	
181 ... 200 mm (7.13 ... 7.87 inch) Initial: 200 mm (7.87 inch)	**0 6**	
201 ... 220 mm (7.91 ... 8.66 inch) Initial: 220 mm (8.66 inch)	**0 7**	
221…240 mm (8.70 ... 9.45 inch) Initial: 225 mm (8.86 inch)	**1 1**	
241…260 mm (9.49 ... 10.24 inch) Initial: 250 mm (9.84 inch)	**1 2**	
261…280 mm (10.28 ...11.02 inch) Initial: 280 mm (11.02 inch)	**1 3**	
281…300 mm (11.06 ... 11.81 inch) Initial: 285 mm 11.22 inch)	**1 4**	
301…320 mm (11.85 ... 13.00 inch) Initial: 315 mm (12.40 inch)	**1 5**	
321…340 mm (12.64 ... 13.39 inch) Initial: 340 mm (13.39 inch)	**1 6**	
341…360 mm (13.43 ... 14.17 inch) Initial: 360 mm (14.17 inch)	**2 0**	
361…380 mm (14.21 ... 14.96 inch) Initial: 380 mm (14.96 inch)	**2 1**	
381…400 mm (14.99 ... 15.75 inch) Initial: 400 mm (15.75 inch)	**2 2**	
401…420 mm (15.79 ... 16.54 inch) Initial: 420 mm (16.54 inch)	**2 3**	
421…440 mm (16.57 ... 17.32 inch) Initial: 440 mm (17.32 inch)	**2 4**	
441…460 mm (17.36 ... 18.11 inch) Initial: 460 mm (18.11 inch)	**2 5**	
461…480 mm (18.15 ... 18.90 inch) Initial: 465 mm (18.30 inch)	**2 6**	
481…500 mm (18.94 ... 19.69 inch) Initial: 500 mm (19.69 inch)	**2 7**	

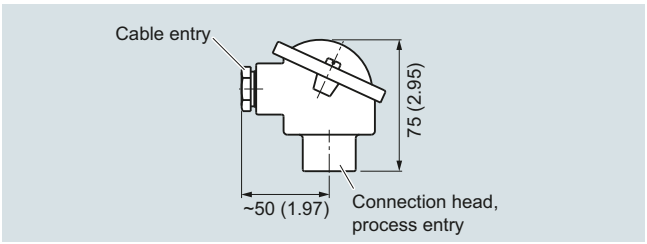
Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	**7MC751-**	
Tubular thermowell, low to medium stress, according to DIN 43722, Type 3G, screwed design, with extension	■ - ■■■■■ -	■■■ ■■■
501 ... 550 mm (19.72 ... 21.65 inch) Initial: 510 mm (20.08 inch)	**3 1**	
551 ... 600 mm (21.69 ... 23.62 inch) Initial: 600 mm (23.62 inch)	**3 2**	
601 ... 650 mm (23.66 ... 25.59 inch) Initial: 650 mm (25.59 inch)	**3 3**	
651 ... 700 mm (25.63 ... 27.56 inch) Initial: 700 mm (27.56 inch)	**3 4**	
701 ... 750 mm (27.6 ... 29.53 inch) Initial: 750 mm (29.53 inch)	**3 5**	
751 ... 800 mm (29.57 ... 31.50 inch) Initial: 800 mm (31.50 inch)	**3 6**	
801 ... 850 mm (31.53 ... 33.46 inch) Initial: 850 mm (33.46 inch)	**3 7**	
851 ... 900 mm (33.50 ... 35.43 inch) Initial: 900 mm (35.43 inch)	**4 1**	
901 ... 950 mm (35.47 ... 37.40 inch) Initial: 950 mm (37.40 inch)	**4 2**	
951 ... 1 000 mm (37.44 ... 39.37 inch) Initial: 1 000 mm (39.37 inch)	**4 3**	
Extension X		
Standard length for Type 2G DIN 43772 (X=131 mm (5.08 inch))	**1**	
Extension length - customer specific		
enter customer specific length with Y45, see page 2/83 Order codes		
75 ...150 mm (2.95 ... 5.91 inch) Initial: 150 mm (5.91 inch)	**9**	**N 1 D**
151 ... 300 mm (5.95 ... 11.81 inch) Initial: 300 mm (11.81 inch)	**9**	**N 2 D**

Additional configurations on page after next page!

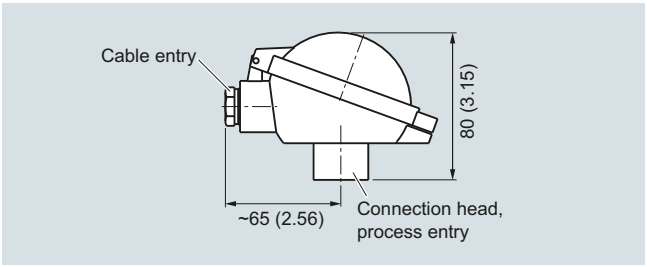
You find ordering examples on page 2/40!

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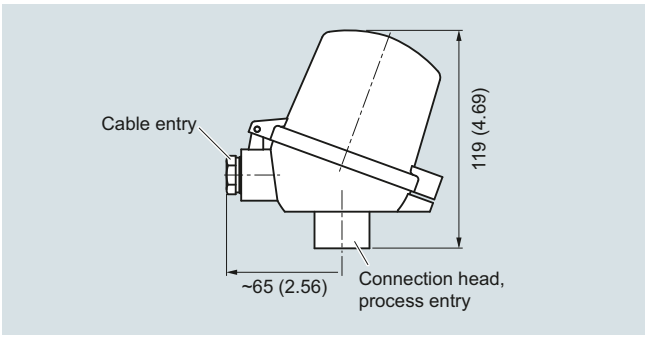
Type 3G, fast response, screwed design, with extension



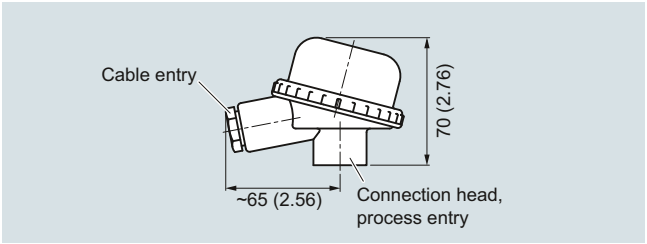
Connection head, aluminum, Type BA0, dimensions in mm (inch)



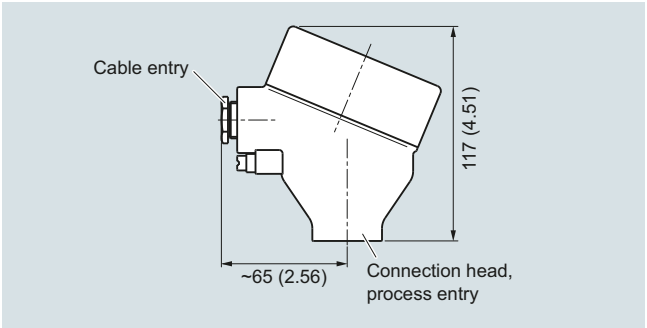
Connection head, aluminum, Type BB0, dimensions in mm (inch)



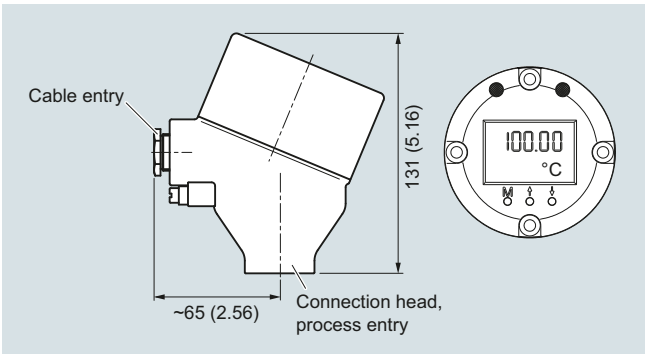
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



Connection head, plastic, Type BM0, dimensions in mm (inch)



Connection head, aluminum, Type AG0, stainless steel, Type AU0, dimensions in mm (inch)



Connection head with 4-20 mA display, aluminum, Type AH0, stainless steel, Type AV0, dimensions in mm (inch)

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Type 3G, fast response, screwed design, with extension

Selection and Ordering data	Article No.
SITRANS TS500 **Tubular thermowell, low to medium stress, according to DIN 43722, Type 3G, screwed design, with extension**	**7MC751-** ■ - ■■■■■ - ■■■■
Head	
Aluminum head, BA0, flange cover, Standard	**A**
Aluminum head, BB0, low hinged cover, screw connection	**B**
Aluminum head, BC0, high hinged cover, screw connection	**C**
Aluminum head, AG0, screw cover, suitable for Ex d[1]	**G**
Aluminum head, AH0, screw cover, suitable for Ex d, display[1]	**H**
Plastic head, BM0, screw cover	**M**
Plastic head, BP0high hinged cover, screw connection	**P**
Stainless steel head, AU0, screw cover, Ex d[1]	**U**
Stainless steel head, screw cover, Ex d, display[1]	**V**
Sensor[2] 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)	**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 ... + 1000 °C (-40 ... +1 832 °F)	**N**
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)	**1**
Single, increased accuracy (Class 1/Class A)	**2**
Single, highest accuracy (Class AA)	**3**
Double, basic accuracy (Class 2/Class B)	**5**
Double, increased accuracy (Class 1/Class A)	**6**
Double, highest accuracy (Class AA)	**7**

[1] Ex d in connection with Order code E03

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

Selection and Ordering data	Order code
Further designs Add "**-Z**" to Article No. and specify Order code.	
Insertion length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y44**
Extension length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y45**
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, input 1 x Pt100, 4 ... 20 mA	**T12**
SITRANS TH320, input 1 x universal, 4 ... 20 mA	**T24**
SITRANS TH320, input 1 x universal, HART	**T34**
SITRANS TH420, input 2 x universal, HART	**T35**
SITRANS TH400, input 1 x universal, PA	**T40**
SITRANS TH400, input 1 x universal, PA, Ex	**T41**
SITRANS TH400, input 1 x universal, FF	**T45**
SITRANS TH400, input 1 x universal, FF, Ex	**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**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to ATEX and IECEx (Europe, Australia, New Zealand)	**E03**
Non-sparking "ec" according to ATEX and IECEx (Europe, Australia, New Zealand)	**E04**
Without explosion protection requirements (USA, Canada) Basis FM	**E10**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cFMus (USA, Canada); other connections (M,G,R)	**E14**
Non-sparking "nA"/"NI" according to cFMus (USA, Canada)	**E16**
Without explosion protection requirements (USA, Canada), Basis CSA	**E17**
Intrinsic safety "i"/"IS"[1] according to cCSAus (USA, Canada)	**E18**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cCSAus (USA); other connections (M, G, R)	**E21**
Non-sparking "nA"/"NI" according to cCSAus (USA, Canada)	**E23**
Without explosion protection requirements (China)	**E54**
Intrinsic safety "i"/"IS"[1] according to NEPSI (China)	**E55**
Flameproof enclosure "d"; dust protection through housing "t"[2] according to NEPSI (China)	**E56**
Non-sparking "nA"/"NI" according to NEPSI (China)	**E57**
Without explosion protection requirements (EAC)	**E80**
Intrinsic safety "i"/"IS"[1] according to EACEx (EAC)	**E81**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to EACEx (EAC)	**E82**
Non-sparking "nA"/"NI" according to EACEx (EAC)	**E83**
Marine approvals	
Det Norske Veritas Germanischer Lloyd (DNV GL)	**D01**

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Type 3G, fast response, screwed design, with extension

Selection and Ordering data	Order code
Certificates and approvals	
EN 10204-3.1 Inspeciton certificate for materials coming into contact with media	**C12**
EN 10204-3.1 Inspection certificate for hydrostatic pressure test	**C31**
EN 10204-3.1 Inspection certificate for helium leak test	**C32**
EN 10204-3.1 Inspection certificate for dye-penetration-test	**C33**
EN 10204-3.1 Inspectiont 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**
EN 10204-3.1 Acceptance test certificate "Positive Materials Identification" (PMI)	**On request**
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), marking on the device when Order code "Y15" is selected	**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**
SITRANS TH320/420 transmitter with SIL2/3 certificate	**C20**
Transmitter test protocol (5 points)	**C11**
Further options	
Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs)	**G01**
M12 device plug (in combination with transmitter, Non-Ex and intrinsically safe, max. IP65/67)	**G12**
Han 7D device plug (Non Ex and intrinsically safe, without mating connector max. IP65/67)	**G13**
Connection head with ½" NPT thread without cable gland, for AU0 and AH0 only IP66	**G20**
with outer earth screw for heads AG0, AH0, AU0 and AV0	**A02**
with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	**A03**
Option not found?	
Handling number special version	**Y99**

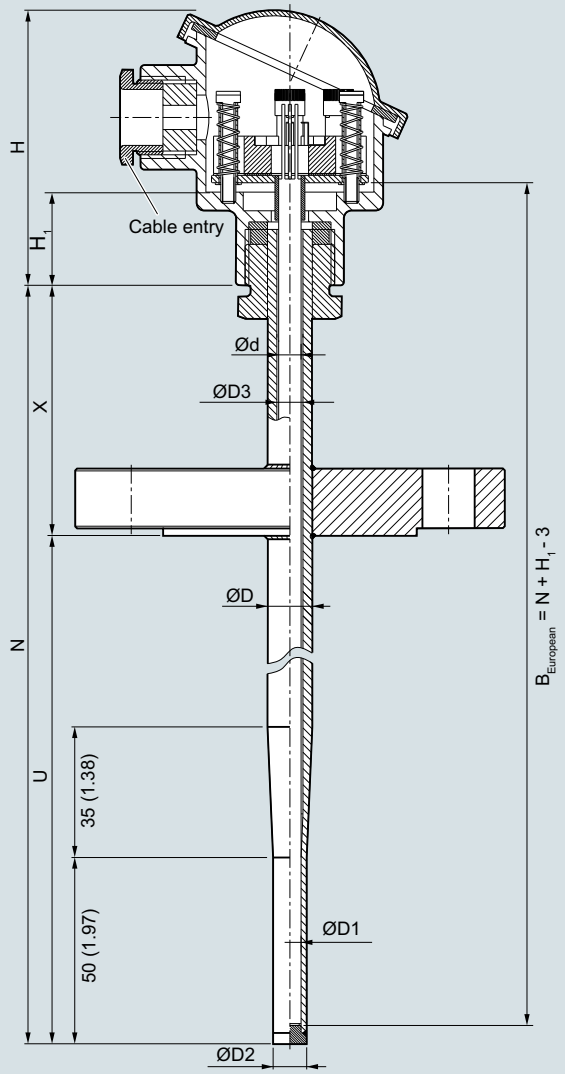
1) Please select Ex i version of the optional transmitter.

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 2/40.
Accessories, see page 2/251.

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Dimensional drawings



B	Measuring insert length
Ød	Measuring insert outer diameter (6 (0.24))
ØD	Process connection outer diameter
ØD1	Tip internal diameter
ØD2	Tip outer diameter
ØD3	Thermowell internal diameter
H	Head height
H_1	Type Axx = 41 (1.61) Type Bxx = 26 (1.02)
N	Nominal length
U	Insertion length
X	Extension length, floor strength 6 mm

SITRANS TS500, temperature sensors for vessels and pipes, tubular thermowell for low to medium stress, according to DIN 43772, type 3F, with flange, with extension, dimensions in mm (inch)

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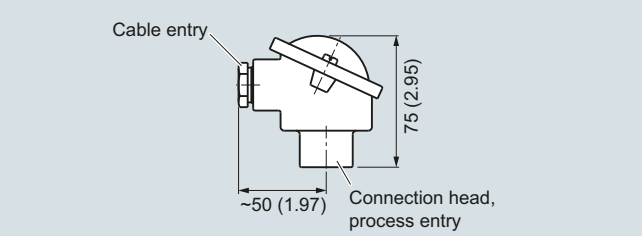
Type 3F, fast response, with flange and extension

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500 **Tubular thermowell, low to medium stress, according to DIN 43722, Type 3F, with flange, with extension**	**7MC751-**	
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.		
Material, in contact with media		
316Ti (1.4571)	**1**	
316L (1.4404 or 1.4435)	**2**	
Process connection		
Flange EN; DN 40 PN 40 B1	**2 B**	
Flange EN; DN 50 PN 40 B1	**2 C**	
Flange ASME; 1.0" RF 150	**2 E**	
Flange ASME; 1.0" RF 300	**2 F**	
Flange ASME; 1.5" RF 150	**2 G**	
Flange ASME; 1.5" RF 300	**2 H**	
Flange ASME; 2.0" RF 150	**2 J**	
Flange ASME; 2.0" RF 300	**2 K**	
Flange ASME; 1.0" RF 600	**2 L**	
Flange ASME; 1.5" RF 600	**2 N**	
Flange ASME; 1.5" RF 900	**2 R**	
Flange ASME; 2.0" RF 600	**2 S**	
Flange ASME; 2.0" RF 900	**2 T**	
Flange EN; DN 32 PN 40 B1	**4 A**	
Flange EN; DN 40 PN 100 B1	**4 B**	
Flange EN; DN 50 PN 16 B1	**4 C**	
Flange EN; DN 80 PN 16 B1	**4 D**	
Flange EN; DN 100 PN 16 B1	**4 E**	
Thermowell form		
3F; 12/9 mm (0.47/0.35 inch)	**K**	
Insertion length U standard		
225 mm (8.86 inch)	**1 1**	
285 mm (11.22 inch)	**1 4**	
345 mm (13.58 inch)	**1 7**	
Insertion length U customer-specific enter customer specific length with Y44, see page 2/88 Order codes		
121 ... 140 mm (4.76 ... 5.51 inch) Initial: 140 mm (5.51 inch)	**0 3**	
141 ... 160 mm (5.55 ... 6.30 inch) Initial: 160 mm (6.3 inch)	**0 4**	
161 ... 180 mm (6.34 ... 7.09 inch) Initial: 180 mm (7.09 inch)	**0 5**	
181 ... 200 mm (7.13 ... 7.87 inch) Initial: 200 mm (7.87 inch)	**0 6**	
201 ... 220 mm (7.91 ... 8.66 inch) Initial: 220 mm (8.66 inch)	**0 7**	
221 ... 240 mm (8.7 ... 9.45 inch) Initial: 225 mm (8.86 inch)	**1 1**	
241 ... 260 mm (9.48 ... 10.24 inch) Initial: 250 mm (9.84 inch)	**1 2**	
261 ... 280 mm (10.28 ... 11.02 inch) Initial: 280 mm (11.02 inch)	**1 3**	
281 ... 300 mm (11.02 ... 11.81 inch) Initial: 285 mm (11.22 inch)	**1 4**	
301 ... 320 mm (11.85 ... 12.6 inch) Initial: 315 mm (12.4 inch)	**1 5**	
321 ... 340 mm (12.64 ... 13.39 inch) Initial: 340 mm (13.39 inch)	**1 6**	
341 ... 360 mm (13.43 ... 14.17 inch) Initial: 345 mm (13.58 inch)	**1 7**	
361 ... 380 mm (14.21 ... 14.96 inch) Initial: 380 mm (14.96 inch)	**2 1**	
381 ... 400 mm (15 ... 15.75 inch) Initial: 400 mm (15.75 inch)	**2 2**	
401 ... 420 mm (15.79 ... 16.54 inch) Initial: 420 mm (16.54 inch)	**2 3**	
421 ... 440 mm (16.57 ... 17.32 inch) Initial: 440 mm (17.32 inch)	**2 4**	
441 ... 460 mm (17.36 ... 18.11 inch) Initial: 460 mm (18.11 inch)	**2 5**	
461 ... 480 mm (18.15 ... 18.90 inch) Initial: 465 mm (18.30 inch)	**2 6**	
481 ... 500 mm (18.94 ... 19.68 inch) Initial: 500 mm (19.68 inch)	**2 7**	
501 ... 550 mm (19.72 ... 21.65 inch) Initial: 510 mm (20.08 inch)	**3 1**	
551 ... 600 mm (21.69 ... 23.62 inch) Initial: 600 mm (23.62 inch)	**3 2**	
601 ... 650 mm (23.66 ... 25.59 inch) Initial: 650 mm (25.59 inch)	**3 3**	
651 ... 700 mm (25.63 ... 27.56 inch) Initial: 700 mm (27.56 inch)	**3 4**	
701 ... 750 mm (27.6 ... 29.53 inch) Initial: 750 mm (29.53 inch)	**3 5**	
751 ... 800 mm (29.57 ... 31.50 inch) Initial: 800 mm (31.50 inch)	**3 6**	
801 ... 850 mm (31.53 ... 33.46 inch) Initial: 850 mm (33.46 inch)	**3 7**	
851 ... 900 mm (33.50 ... 35.43 inch) Initial: 900 mm (35.43 inch)	**4 1**	
901 ... 950 mm (35.47 ... 37.40 inch) Initial: 950 mm (37.40 inch)	**4 2**	
951 ... 1 000 mm (37.44 ... 39.37 inch) Initial: 1 000 mm (39.37 inch)	**4 3**	
1 001 ... 1 100 mm (39.41 ... 43.31 inch) Initial: 1 100 mm (43.31 inch)	**4 4**	
Extension		
Standard length for Type 3F DIN 43772 (X=66 mm (2.60 inch))	**1**	
Extension length - customer specific enter customer specific length with Y45, see page 2/88 Order codes		
75 ...150 mm (2.95 ... 5.91 inch) Initial: 150 mm (5.91 inch)	**9**	**N 1 D**
151 ... 300 mm (5.95 ... 11.81 inch) Initial: 300 mm (11.81 inch)	**9**	**N 2 D**

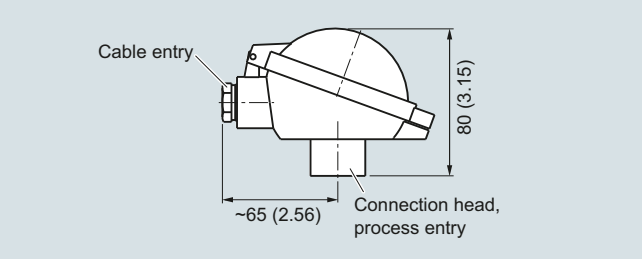
Additional configurations on page after next page!

You find ordering examples on page 2/40!

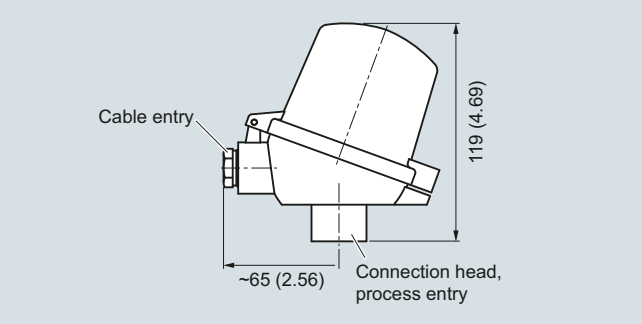
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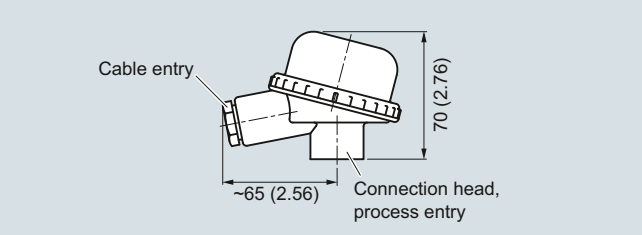
Connection head, aluminum, Type BA0, dimensions in mm (inch)



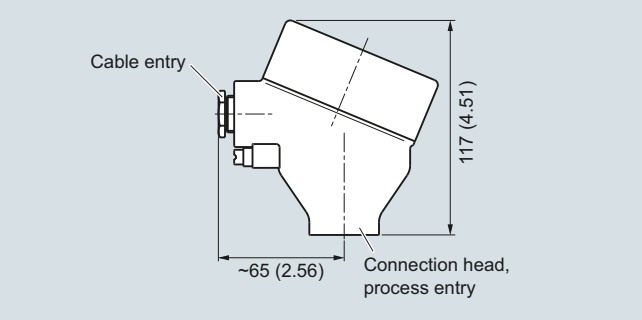
Connection head, aluminum, Type BB0, dimensions in mm (inch)



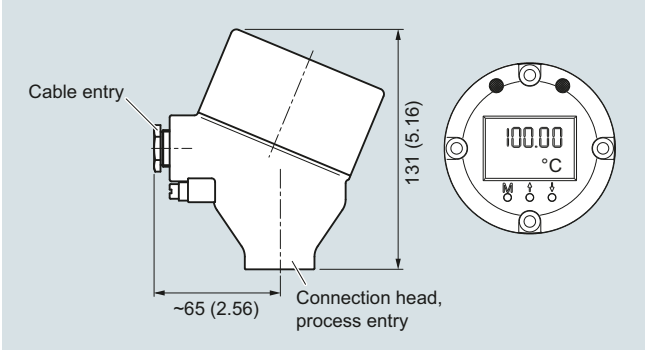
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



Connection head, plastic, Type BM0, dimensions in mm (inch)



Connection head, aluminum, Type AG0, stainless steel, Type AU0, dimensions in mm (inch)



Connection head with 4-20 mA display, aluminum, Type AH0, stainless steel, Type AV0, dimensions in mm (inch)

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Type 3F, fast response, with flange and extension

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500 **Tubular thermowell, low to medium stress, according to DIN 43722, Type 3F, with flange, with extension**	**7MC751-**	■ - ■■■■■ - ■■■■ ■■■
Head		
Aluminum head, BA0, flange cover, Standard		**A**
Aluminum head, BB0, low hinged cover, screw connection		**B**
Aluminum head, BC0, high hinged cover, screw connection		**C**
Aluminum head, AG0, screw cover, suitable for Ex d[1]		**G**
Aluminum head, AH0, screw cover, suitable for Ex d, display[1]		**H**
Plastic head, BM0, screw cover		**M**
Plastic head, BP0high hinged cover, screw connection		**P**
Stainless steel head, AU0, screw cover, Ex d[1]		**U**
Stainless steel head, screw cover, Ex d, display[1]		**V**
Sensor[2] 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)		**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 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)		**1**
Single, increased accuracy (Class 1/Class A)		**2**
Single, highest accuracy (Class AA)		**3**
Double, basic accuracy (Class 2/Class B)		**5**
Double, increased accuracy (Class 1/Class A)		**6**
Double, highest accuracy (Class AA)		**7**

[1] Ex d in connection with Order code E03

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

Selection and Ordering data	Order code
Further designs	
Add "**-Z**" to Article No. and specify Order code.	
Insertion length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y44**
Extension length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y45**
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, input 1 x Pt100, 4 ... 20 mA	**T12**
SITRANS TH320, input 1 x universal, 4 ... 20 mA	**T24**
SITRANS TH320, input 1 x universal, HART	**T34**
SITRANS TH420, input 2 x universal, HART	**T35**
SITRANS TH400, input 1 x universal, PA	**T40**
SITRANS TH400, input 1 x universal, PA, Ex	**T41**
SITRANS TH400, input 1 x universal, FF	**T45**
SITRANS TH400, input 1 x universal, FF, Ex	**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**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to ATEX and IECEx (Europe, Australia, New Zealand)	**E03**
Non-sparking "ec" according to ATEX and IECEx (Europe, Australia, New Zealand)	**E04**
Without explosion protection requirements (USA, Canada) Basis FM	**E10**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cFMus (USA, Canada); other connections (M,G,R)	**E14**
Non-sparking "nA"/"NI" according to cFMus (USA, Canada)	**E16**
Without explosion protection requirements (USA, Canada), Basis CSA	**E17**
Intrinsic safety "i"/"IS"[1] according to cCSAus (USA, Canada)	**E18**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cCSAus (USA); other connections (M, G, R)	**E21**
Non-sparking "nA"/"NI" according to cCSAus (USA, Canada)	**E23**
Without explosion protection requirements (China)	**E54**
Intrinsic safety "i"/"IS"[1] according to NEPSI (China)	**E55**
Flameproof enclosure "d"; dust protection through housing "t"[2] according to NEPSI (China)	**E56**
Non-sparking "nA"/"NI" according to NEPSI (China)	**E57**
Without explosion protection requirements (EAC)	**E80**
Intrinsic safety "i"/"IS"[1] according to EACEx (EAC)	**E81**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to EACEx (EAC)	**E82**
Non-sparking "nA"/"NI" according to EACEx (EAC)	**E83**
Marine approvals	
Det Norske Veritas Germanischer Lloyd (DNV GL)	**D01**

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Selection and Ordering data	Order code
Certificates and approvals	
EN 10204-3.1 Inspection certificate for materials coming into contact with media	**C12**
EN 10204-3.1 Inspection certificate for hydrostatic pressure test	**C31**
EN 10204-3.1 Inspection certificate for helium leak test	**C32**
EN 10204-3.1 Inspection certificate for dye-penetration-test	**C33**
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**
EN 10204-3.1 Acceptance test certificate "Positive Materials Identification" (PMI)	**On request**
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**
SITRANS TH320/420 transmitter with SIL2/3 certificate	**C20**
Transmitter test protocol (5 points)	**C11**
Further options	
Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs)	**G01**
M12 device plug (in combination with transmitter, Non-Ex and intrinsically safe, max. IP65/67)	**G12**
Han 7D device plug (Non Ex and intrinsically safe, without mating connector max. IP65/67)	**G13**
Connection head with ½" NPT thread without cable gland, for AU0 and AH0 only IP66	**G20**
with outer earth screw for heads AG0, AH0, AU0 and AV0	**A02**
with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	**A03**
Option not found?	
Handling number special version	**Y99**

[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 2/40.
Accessories, see page 2/251.

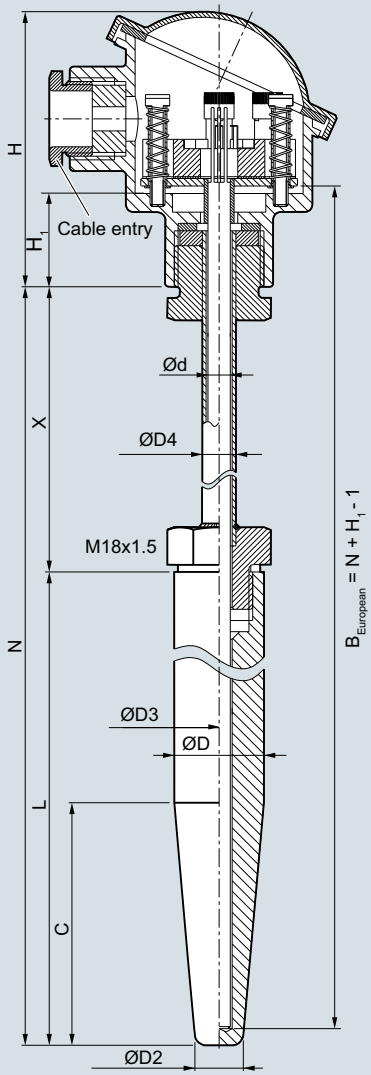
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Type 4+4F, with extension

2

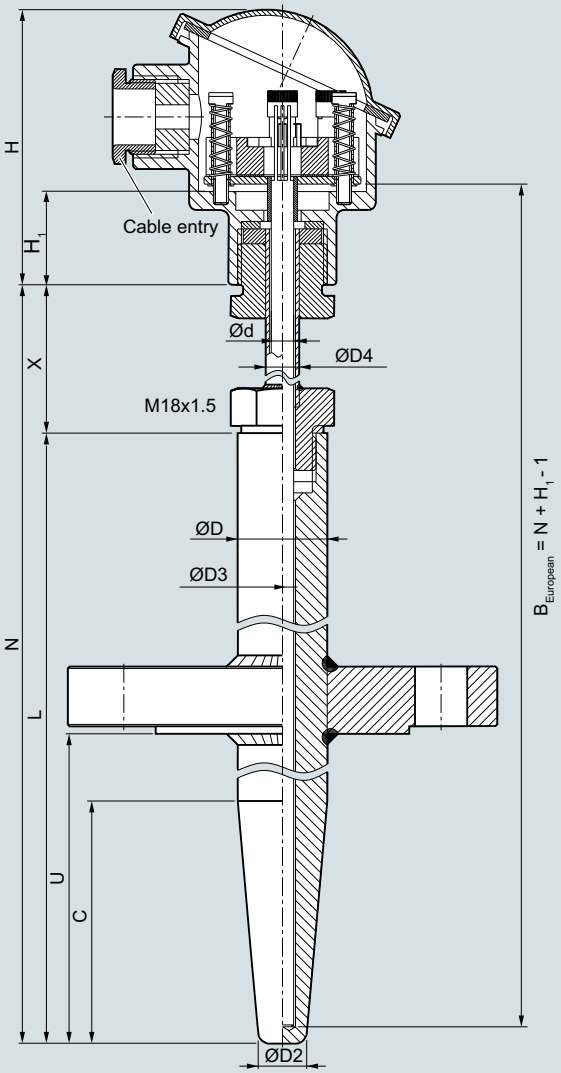
Dimensional drawings

SITRANS TS500, temperature sensors for vessels and pipes, barstock thermowell for medium to extreme stress, according to DIN 43772..



B	Measuring insert length
C	Cone length = U_{min}
Ød	Measuring insert outer diameter (6 (0.24))
ØD	Process connection outer diameter
ØD2	Tip outer diameter, 12.5 (0.49)
ØD3	Thermowell internal diameter
ØD4	Extension outer diameter
H	Head height
H_1	Type Axx = 41 (1.61) Type Bxx = 26 (1.02)
L	Length of thermowell
N	Nominal length
X	Extension length, floor strength 4 mm

Thermowell type 4, for welding in, with extension, dimensions in mm (inch)



B	Measuring insert length
C	Cone length = U_{min}
Ød	Measuring insert outer diameter (6 (0.24))
ØD	Process connection outer diameter
ØD2	Tip outer diameter, 12.5 (0.49)
ØD3	Thermowell internal diameter
ØD4	Extension outer diameter
H	Head height
H_1	Type Axx = 41 (1.61) Type Bxx = 26 (1.02)
L	Length of thermowell
N	Nominal length
U	Insertion length (Standard: U = L - 70 (2.76))
X	Extension length, floor strength 4 mm

Thermowell type 4F, with flange, with extension, dimensions in mm (inch)

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Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	**7MC752-**	
Barstock thermowell for medium to extreme stress, according to DIN 43722, Type 4, for welding in, Type 4F with flange, with extension	■ - ■■■■■ -	■■■ ■■■
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.		
Material, in contact with media		
316Ti (1.4571)	**1**	
316L (1.4404 or 1.4435)	**2**	
1.7335 heat resistant, only for versions without flange	**3**	
1.5415 heat resistant, only for versions without flange	**4**	
Process connection		
Without (for welding in)	**0 N**	
Flange DN25 PN10 ... 40 B1	**2 A**	
Flange 1"RF150	**2 E**	
Flange 1"RF300	**2 F**	
Flange 1.5"RF150	**2 G**	
Flange 1.5"RF300	**2 H**	
Thermowell form		
For flanged types only: specify with Y44 in plain text if insertion length "U" deviates from standard (U=L-70 mm (2.76 inch)). (Min: U = C; Max; U= L-50 mm (1.97 inch))		
Type 4/4F, L=140 mm (5.51 inch), C=65 mm (3.74 inch), ØD=24 mm (0.95 inch), Ød=6 mm (0.24 inch)	**A 0 0**	
Type 4/4F, L=200 mm (7.87 inch), C=65 mm (3.74 inch), ØD=24 mm (0.95 inch), Ød=6 mm (0.24 inch)	**B 0 0**	
Type 4/4F, L=200 mm (7.87 inch), C=125 mm (4.92 inch), ØD=24 mm (0.95 inch), Ød=6 mm (0.24 inch)	**D 0 0**	
Type 4/4F, L=260 mm (10.24 inch), C=125 mm (4.92 inch), ØD=24 mm (0.95 inch), Ød=6 mm (0.24 inch)	**E 0 0**	
Extension X		
as per DIN 43772 (X=149 mm (5.87 inch))	**1**	
Extension X, customer-specific enter customer specific length with Y45, see page 2/93 Order codes		
75 ...150 mm (2.95 ... 5.91 inch) Initial: 150 mm (5.91 inch)	**9**	**N 1 D**
151 ... 300 mm (5.95 ... 11.81 inch) Initial: 300 mm (11.81 inch)	**9**	**N 2 D**
301 ... 450 mm (11.85 ... 17.72 inch) Initial: 450 mm (17.72 inch)	**9**	**N 3 D**
451 ... 600 mm (17.86 ... 23.62 inch) Initial: 600 mm (23.62 inch)	**9**	**N 4 D**
601 ... 750 mm (23.66 ... 29.53 inch) Initial: 750 mm (29.53 inch)	**9**	**N 5 D**
751 ... 900 mm (29.57 ... 45.43 inch) Initial: 900 mm (45.43 inch)	**9**	**N 6 D**
901 ... 1 050 mm (45.47 ... 41.34 inch) Initial: 1 050 mm (41.34 inch)	**9**	**N 7 D**

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	**7MC752-**	
Barstock thermowell for medium to extreme stress, according to DIN 43722, Type 4, for welding in, Type 4F with flange, with extension	■ - ■■■■■ -	■■■ ■■■
Head		
Aluminum head, BA0, flange cover, Standard	**A**	
Aluminum head, BB0, low hinged cover, screw connection	**B**	
Aluminum head, BC0, high hinged cover, screw connection	**C**	
Aluminum head, AG0, screw cover, suitable for Ex d[1)]	**G**	
Aluminum head, AH0, screw cover, suitable for Ex d, display[1)]	**H**	
Plastic head, BM0, screw cover	**M**	
Plastic head, BP0high hinged cover, screw connection	**P**	
Stainless steel head, AU0, screw cover, Ex d[1)]	**U**	
Stainless steel head, AV0, screw cover, Ex d, display[1)]	**V**	
Sensor[2)] 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)	**A**	
Pt100, vibration resistant, -50 ... +400 °C (-58 ... +752)	**B**	
Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112)	**C**	
Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832)	**K**	
Thermocouple Type J, -40 ... +750 °C (-40 ... +1 382)	**J**	
Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832)	**N**	
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)	**1**	
Single, increased accuracy (Class 1/Class A)	**2**	
Single, highest accuracy (Class AA)	**3**	
Double, basic accuracy (Class 2/Class B)	**5**	
Double, increased accuracy (Class 1/Class A)	**6**	
Double, highest accuracy (Class AA)	**7**	

1) Ex d in connection with Order code E03

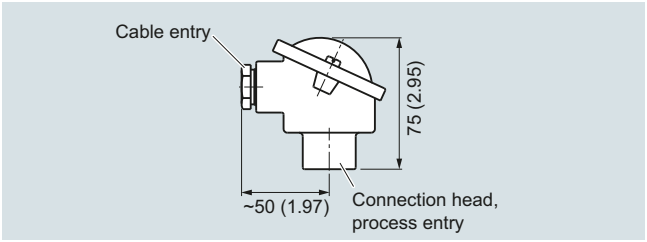
2) Pt1000 versions are also available. To find these, please switch to Online Configuration in the PIA Life Cycle Portal: www.siemens.com/pia-portal

Additional configurations on page after next page!

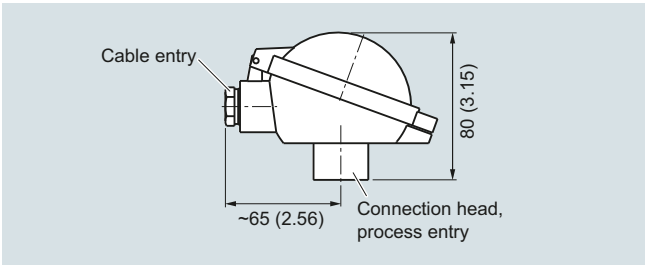
You find ordering examples on page 2/40!

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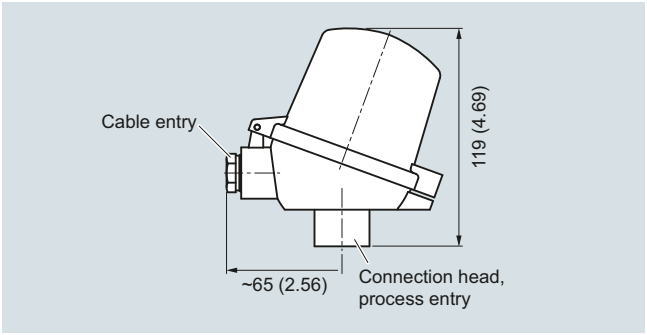
Type 4+4F, with extension



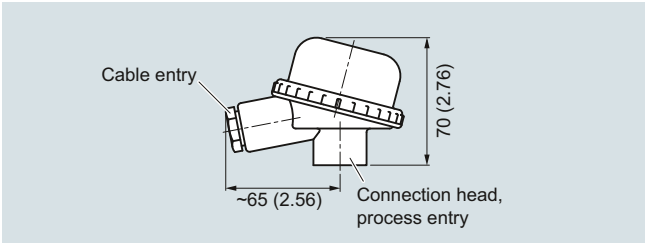
Connection head, aluminum, Type BA0, dimensions in mm (inch)



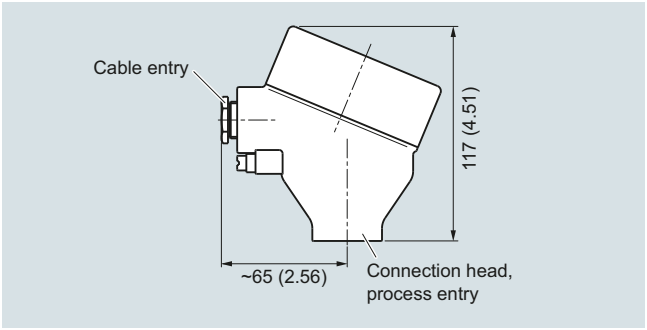
Connection head, aluminum, Type BB0, dimensions in mm (inch)



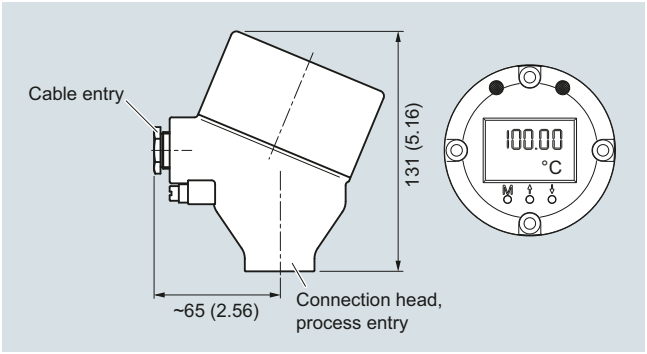
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



Connection head, plastic, Type BM0, dimensions in mm (inch)



Connection head, aluminum, Type AG0, stainless steel, Type AU0, dimensions in mm (inch)



Connection head with 4-20 mA display, aluminum, Type AH0, stainless steel, Type AV0, dimensions in mm (inch)

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Selection and Ordering data	Order code
Further designs	
Add "**-Z**" to Article No. and specify Order code.	
Insertion length customer-specific Select range, enter desired length in plain text Insertion length U deviating from standard; (Min: U = C; Max; U= L-50 mm (1.97 inch)), no entry = standard length (U=L-70 mm (2.76 inch))	**Y44**
Extension length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y45**
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, input 1 x Pt100, 4 ... 20 mA	**T12**
SITRANS TH320, input 1 x universal, 4 ... 20 mA	**T24**
SITRANS TH320, input 1 x universal, HART	**T34**
SITRANS TH420, input 2 x universal, HART	**T35**
SITRANS TH400, input 1 x universal, PA	**T40**
SITRANS TH400, input 1 x universal, PA, Ex	**T41**
SITRANS TH400, input 1 x universal, FF	**T45**
SITRANS TH400, input 1 x universal, FF, Ex	**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**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to ATEX and IECEx (Europe, Australia, New Zealand)	**E03**
Non-sparking "ec" according to ATEX and IECEx (Europe, Australia, New Zealand)	**E04**
Without explosion protection requirements (USA, Canada) Basis FM	**E10**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cFMus (USA, Canada); other connections (M,G,R)	**E14**
Non-sparking "nA"/"NI" according to cFMus (USA, Canada)	**E16**
Without explosion protection requirements (USA, Canada), Basis CSA	**E17**
Intrinsic safety "i"/"IS"[1] according to cCSAus (USA, Canada)	**E18**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cCSAus (USA); other connections (M, G, R)	**E21**
Non-sparking "nA"/"NI" according to cCSAus (USA, Canada)	**E23**
Without explosion protection requirements (China)	**E54**
Intrinsic safety "i"/"IS"[1] according to NEPSI (China)	**E55**
Flameproof enclosure "d"; dust protection through housing "t"[2] according to NEPSI (China)	**E56**
Non-sparking "nA"/"NI" according to NEPSI (China)	**E57**
Without explosion protection requirements (EAC)	**E80**
Intrinsic safety "i"/"IS"[1] according to EACEx (EAC)	**E81**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to EACEx (EAC)	**E82**
Non-sparking "nA"/"NI" according to EACEx (EAC)	**E83**
Marine approvals	
Det Norske Veritas Germanischer Lloyd (DNV GL)	**D01**

Selection and Ordering data	Order code
Certificates and approvals	
EN 10204-3.1 Inspection certificate for materials coming into contact with media	**C12**
EN 10204-3.1 Inspection certificate for hydrostatic pressure test	**C31**
EN 10204-3.1 Inspection certificate for helium leak test	**C32**
EN 10204-3.1 Inspection certificate for dye-penetration-test	**C33**
EN 10204-3.1 Inspection certificate: visual, measurement and functional inspection	**C34**
EN 10204-2.1: Declaration of compliance with the order	**C35**
NACE Standard MR-01-75 compliance	**C50**
ISO 9001 grease-free (cleaned for e.g. oxygen applications)	**C51**
EN 10204-3.1 Acceptance test certificate "Positive Materials Identification" (PMI)	**On request**
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), marking on the device when Order code "Y15" is selected	**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**
SITRANS TH320/420 transmitter with SIL2/3 certificate	**C20**
Transmitter test protocol (5 points)	**C11**
Further options	
Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs)	**G01**
Full penetration process connection for 316L/316TI	**G02**
M12 device plug (in combination with transmitter, Non-Ex and intrinsically safe, max. IP65/67)	**G12**
Han 7D device plug (Non Ex and intrinsically safe, without mating connector max. IP65/67)	**G13**
Connection head with ½ NPT thread without cable gland, for AU0 and AH0 only IP66	**G20**
with outer earth screw for heads AG0, AH0, AU0 and AV0	**A02**
with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	**A03**
Option not found?	
Handling number special version	**Y99**

[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).

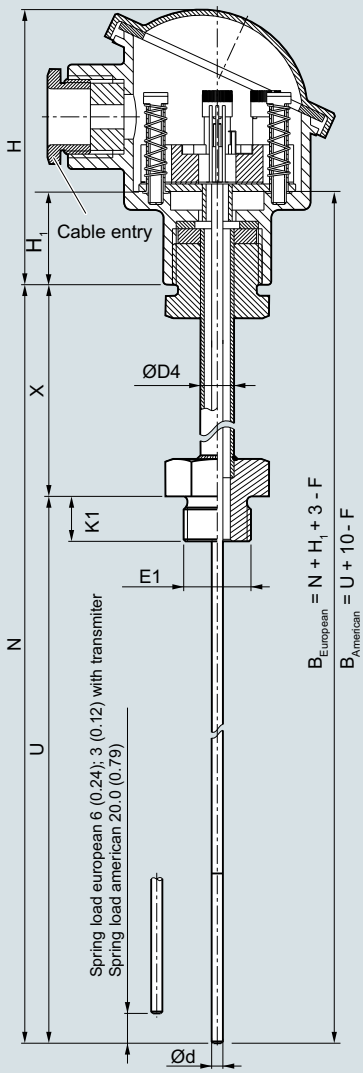
You find ordering examples on page 2/40.
Accessories, see page 2/251.

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For installation in existing thermowells

2

Dimensional drawings



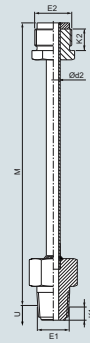
B	Measuring insert length
Ød	Measuring insert outer diameter
ØD4	Extension outer diameter
E1	Process connection, thread size
H	Head height
H_1	Type Axx = 41 (1.61) Type Bxx = 26 (1.02)
K1	Screw depth
N	Nominal length
U	Insertion length
X	Extension length

Recommended spring-load:
European versions = inside length of the thermowell + 3 (0.12)
American versions = inside length of the thermowell + 10 (0.39)

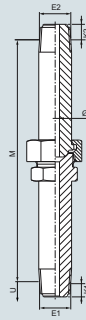
SITRANS TS500, temperature sensors for vessels and pipes. Temperature sensors for installation in existing thermowells, suitable for thermowells in accordance with DIN 43772 and ASME B40.9-2001, with extension of European or American type, dimensions in mm (inch)



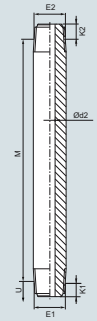
Extension (1, 2, 3)[1], adjustable, european, cylindrical



Extension (1, 2, 3)[1], adjustable, European, tapered



Extension NUN, adjustable, tapered, American (8)[1]



Extension NIP, non-adjustable, tapered, American (6)[1]

[1] Numbers 1 ... 8: s. Selection and Ordering data option extension page 2/95

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Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500 **Temperature sensors for installation in existing thermowells, suitable for thermowells according to DIN 43772 as well as ASME B40.9-2001 with extension** **European or American types**	**7MC7500-**	
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.		
Model		
existing thermowells	1	
Thread type		
G½" (½"BSPP) (not for American type)	C	
NPT½"	J	
M14x1.5 (not for American type)	T	
M18x1.5 (not for American type)	U	
M20x1.5 (not for American type)	V	
Without thread	N	
Special version	Z	J 1 Y
Insertion ength U free length, standard lengths		
110 mm (4.33 inch)	B 1	
140 mm (5.51 inch)	B 2	
200 mm (7.87 inch)	C 1	
260 mm (10.24 inch)	C 2	
410 mm (16.14 inch)	E 1	
Insertion U free length, customer-specific		
enter customer specific length with Y44, see page 2/98 Order codes		
30 ... 100 mm (1.18 ... 3.94 inch) Initial: 100 mm (3.94 inch)	A 0	
101 ... 200 mm (3.98 ... 7.87 inch) Initial: 200 mm (7.87 inch)	B 0	
201 ... 300 mm (7.91 ... 11.81 inch) Initial: 300 mm (11.81 inch)	C 0	
301 ... 400 mm (11.85 ... 15.75 inch) Initial: 400 mm (15.75 inch)	D 0	
401 ... 500 mm (15.79 ... 19.68 inch) Initial: 500 mm (19.68 inch)	E 0	
501 ... 600 mm (19.72 ... 23.62 inch) Initial: 600 mm (23.62 inch)	F 0	
601 ... 800 mm (23.66 ... 31.50 inch) Initial: 800 mm (31.50 inch)	G 0	
801 ... 1 000 mm (31.54 ... 39.37 inch) Initial: 1 000 mm (39.37 inch)	H 0	
1 001 ... 1 250 mm (39.41 ... 49.21 inch) Initial: 1 250 mm (49.21 inch)	J 0	
1 251 ... 1 500 mm (49.25... 59.05 inch) Initial: 1 500 mm (59.05 inch)	K 0	
Special length < 30 mm (1.18 inch) or > 1500 mm (59.00 inch)	X 0	
Measurement tip diameter		
6 mm (0.24 inch)	6	
8 mm (0.31 inch) (with sleeve) (with sleeve = not replaceable)	8	
10 mm (0.39 inch) (with sleeve) (with sleeve = not replaceable)	0	

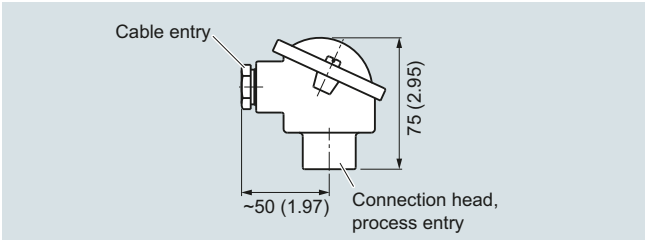
Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500 **Temperature sensors for installation in existing thermowells, suitable for thermowells according to DIN 43772 as well as ASME B40.9-2001 with extension** **European or American types**	**7MC7500-**	
Extension X		
Without extension	0	
European type: X=65 (M=81 mm) (3.15 inch) adjustable	1	
European type: X=139 mm (5.47 inch) (M=155 mm (6.10 inch)) adjustable (DIN standard length for L=110)	2	
European type: X=149 mm (5.87 inch) (M=165 mm (6.50 inch)) adjustable	3	
American type: X=74 mm (2.91 inch) integrated sensor spring, NIP, not adjustable (NPT½"), Umin = 100 mm	6	
American type: X=150 mm (5.91 inch) integrated sensor spring NUN adjustable (NPT½")	8	
Extension X, customer-specific		
enter customer specific length with Y45, see page 2/98 Order codes		
75 ...150 mm (2.95 ... 5.91 inch) Initial: 150 mm (5.91 inch)	9	N 1
151 ... 300 mm (5.95 ... 11.81 inch) Standard: 300 mm (11.81 inch)	9	N 2
301 ... 450 mm (11.85 ... 17.72 inch) Standard: 450 mm (17.72 inch)	9	N 3
Special length < 45 mm (1.77 inch) or > 450 mm (17.7 inch)	9	N 8
Model		
European type (M24 adjustable)		D

Additional configurations on page after next page!

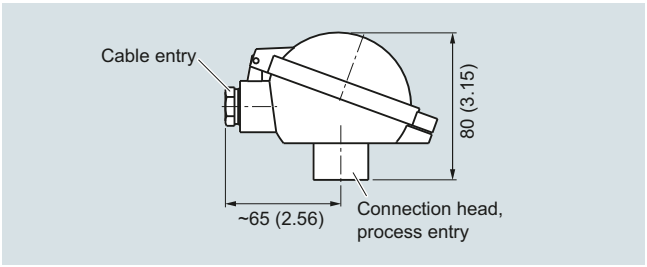
You find ordering examples on page 2/40!

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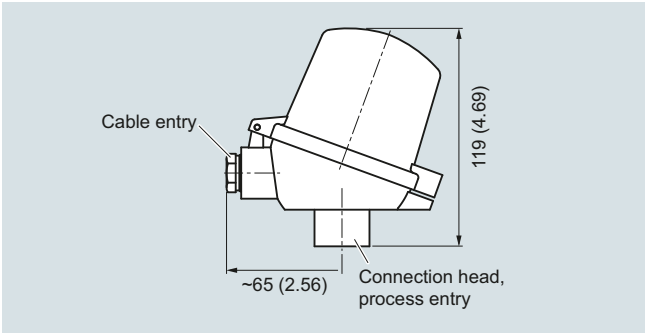
For installation in existing thermowells



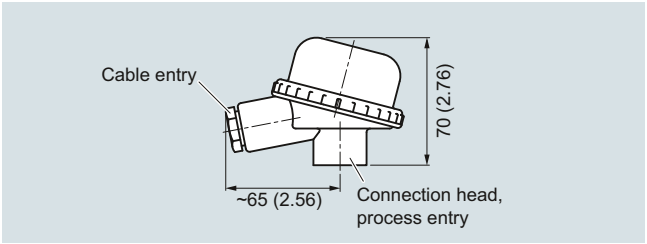
Connection head, aluminum, Type BA0, dimensions in mm (inch)



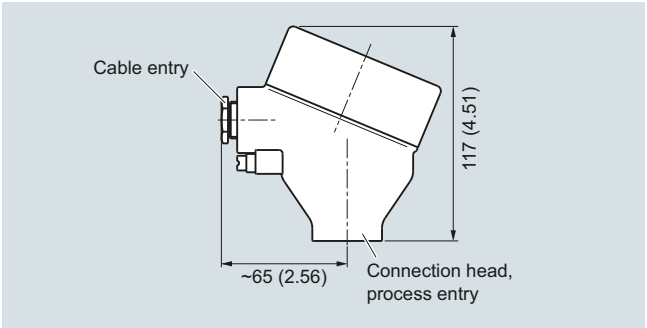
Connection head, aluminum, Type BB0, dimensions in mm (inch)



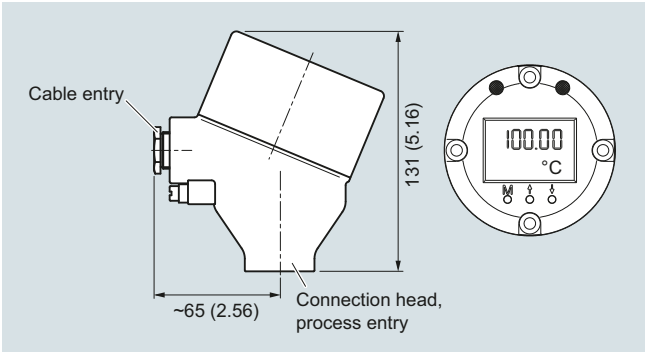
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



Connection head, plastic, Type BM0, dimensions in mm (inch)



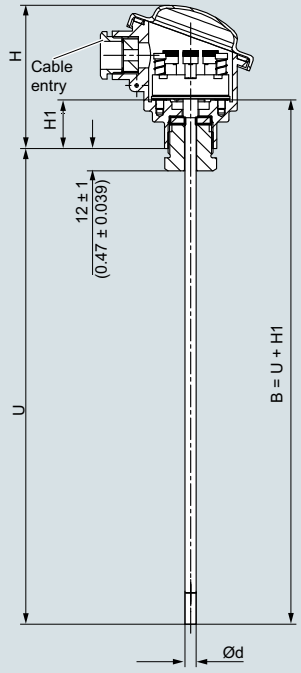
Connection head, aluminum, Type AG0, stainless steel, Type AU0, dimensions in mm (inch)



Connection head with 4-20 mA display, aluminum, Type AH0, stainless steel, Type AV0, dimensions in mm (inch)

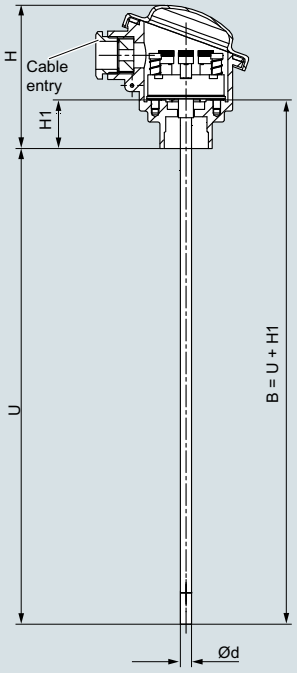
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Option G50: M24x1.5, with seal



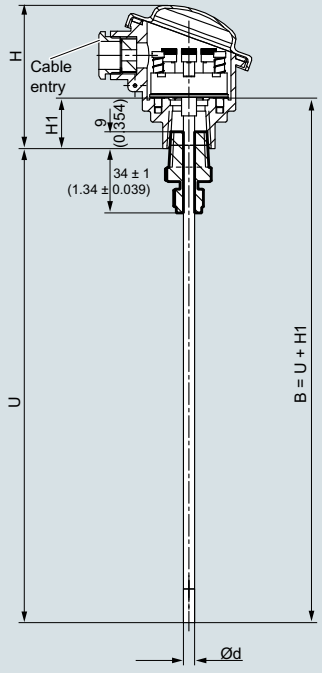
B Measuring insert length
Ød Measuring insert outer diameter
H Head height
H1 Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)
U Insertion length

Option G52: M24x1.5, open



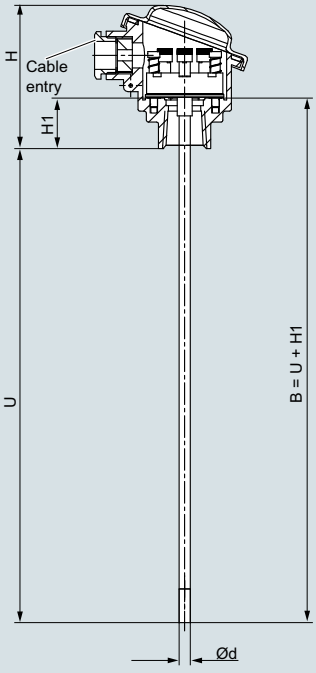
B Measuring insert length
Ød Measuring insert outer diameter
H Head height
H1 Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)
U Insertion length

Option G51: ½" NPT, with seal



B Measuring insert length
Ød Measuring insert outer diameter
H Head height
H1 Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)
U Insertion length

Option G53: ½" NPT, open



B Measuring insert length
Ød Measuring insert outer diameter
H Head height
H1 Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)
U Insertion length

Input of connection head: Umin = 50 mm (1.97 inch), dimensions in mm (inch)

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For installation in existing thermowells

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500 **Temperature sensors for installation in existing thermowells, suitable for thermowells according to DIN 43772 as well as ASME B40.9-2001 with extension European or American types**	**7MC7500-**	
Head		
Aluminum head, BA0, flange cover, Standard		**A**
Aluminum head, BB0, low hinged cover, screw connection		**B**
Aluminum head, BC0, high hinged cover, screw connection		**C**
Aluminum head, AG0, screw cover, suitable for Ex d[1]		**G**
Aluminum head, AH0, screw cover, suitable for Ex d, display[1]		**H**
Plastic head, BM0, screw cover		**M**
Plastic head, BP0high hinged cover, screw connection		**P**
Stainless steel head, AU0, screw cover, Ex d[1]		**U**
Stainless steel head, AV0, screw cover, Ex d, display[1]		**V**
Sensor[2] 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)		**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 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)		**1**
Single, increased accuracy (Class 1/Class A)		**2**
Single, highest accuracy (Class AA)		**3**
Double, basic accuracy (Class 2/Class B)		**5**
Double, increased accuracy (Class 1/Class A)		**6**
Double, highest accuracy (Class AA)		**7**

[1] Ex d in connection with Order code E03

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

Selection and Ordering data	Order code
Further designs	
Add "**-Z**" to Article No. and specify Order code.	
Insertion length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y44**
Extension length customer-specific Select range, enter desired length in plain text (No entry = standard length)	**Y45**
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, input 1 x Pt100, 4 ... 20 mA	**T12**
SITRANS TH320, input 1 x universal, 4 ... 20 mA	**T24**
SITRANS TH320, input 1 x universal, HART	**T34**
SITRANS TH420, input 2 x universal, HART	**T35**
SITRANS TH400, input 1 x universal, PA	**T40**
SITRANS TH400, input 1 x universal, PA, Ex	**T41**
SITRANS TH400, input 1 x universal, FF	**T45**
SITRANS TH400, input 1 x universal, FF, Ex	**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**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to ATEX and IECEx (Europe, Australia, New Zealand)	**E03**
Non-sparking "ec" according to ATEX and IECEx (Europe, Australia, New Zealand)	**E04**
Without explosion protection requirements (USA, Canada) Basis FM	**E10**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cFMus (USA); NPT connections at the enclosure are mandatory	**E13**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cFMus (USA, Canada); other connections (M,G,R)	**E14**
Non-sparking "nA"/"NI" according to cFMus (USA, Canada)	**E16**
Without explosion protection requirements (USA, Canada), Basis CSA	**E17**
Intrinsic safety "i"/"IS"[1] according to cCSAus (USA, Canada)	**E18**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"2) according to cCSAus (USA, Canada); NPT connections **at the enclosure** are mandatory	**E20**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to cCSAus (USA); other connections (M, G, R)	**E21**
Non-sparking "nA"/"NI" according to cCSAus (USA, Canada)	**E23**
Without explosion protection requirements (China)	**E54**
Intrinsic safety "i"/"IS"[1] according to NEPSI (China)	**E55**
Flameproof enclosure "d"; dust protection through housing "t"[2] according to NEPSI (China)	**E56**
Non-sparking "nA"/"NI" according to NEPSI (China)	**E57**
Without explosion protection requirements (EAC)	**E80**
Intrinsic safety "i"/"IS"[1] according to EACEx (EAC)	**E81**
Flameproof enclosure "d"/"XP; dust protection through housing "t"/"DIP"[2] according to EACEx (EAC)	**E82**
Non-sparking "nA"/"NI" according to EACEx (EAC)	**E83**
Marine approvals	
Det Norske Veritas Germanischer Lloyd (DNV GL)	**D01**

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Selection and Ordering data	Order code
Certificates and approvals	
EN 10204-3.1 Factory certificate: visual, measurement and functional inspection	**C34**
EN 10204-2.1: Declaration of compliance with the order	**C35**
EN 10204-3.1 Acceptance test certificate "Positive Materials Identification" (PMI)	**On request**
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), marking on the device when Order code "Y15" is selected	**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**
SITRANS TH320/420 transmitter with SIL2/3 certificate	**C20**
Transmitter test protocol (5 points)	**C11**
Further options	
Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs)	**G01**
M12 device plug (in combination with transmitter, Non-Ex and intrinsically safe, max. IP65/67)	**G12**
Han 7D device plug (Non Ex and intrinsically safe, without mating connector max. IP65/67)	**G13**
Connection head with ½" NPT thread without cable gland, for AU0 and AH0 only IP66	**G20**
Input of the connection head: M24x1.5, with sealing screw, Umin = 50 mm	**G50**
Input of the connection head: 1/2" NPT, with sealing screw, Umin = 50 mm	**G51**
Input of the connection head: M24x1.5, open, Umin = 50 mm	**G52**
Input of the connection head: 1/2" NP, open, Umin = 50 mm	**G53**
with outer earth screw for heads AG0, AH0, AU0 and AV0	**A02**
with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	**A03**
Option not found?	
Handling number special version	**Y99**

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 2/40.
Accessories, see page 2/251.

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