

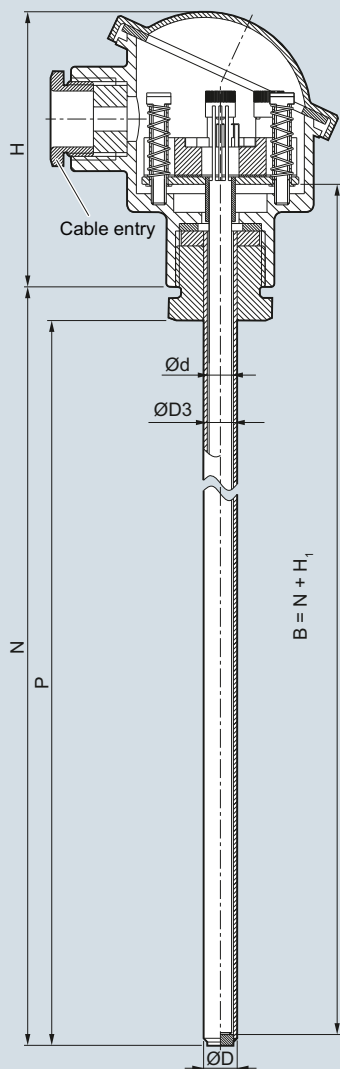
Temperature Measurement

SITRANS TS500

Type 2, tubular version without process connection

Dimensional drawings

2



- B Measuring insert length
- Ød Measuring insert outer diameter (6 (0.24))
- ØD Process connection outer diameter
- ØD3 Thermowell internal diameter
- H Head height
- H₁ Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)
- N Nominal length
- P Space for process connection P ~ N - 9 (0.35)

SITRANS TS500, temperature sensors for vessels and pipings, tubular version for minimal to medium stress, without process connection, without extension, plug-in or use with moveable compression fittings, dimensions in mm (inch)

Type 2, tubular version without process connection

2

Selection and Ordering data	Article No.
SITRANS TS500 Pipe version for minimal to medium stress, as per thermowell 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) 316L (1.4404 or 1.4435)	1 2
Process connection Without process connection (for compression fitting) N=U	0 N
Thermowell form 2; 9 mm (0.35 inch) 2; 12 mm (0.47 inch)	A B
Insertion length U (=N), Standard 160 mm (6.3 inch) 250 mm (9.84 inch) 400 mm (15.75 inch)	0 4 1 2 2 2
Insertion length U (=N), customer-specific enter customer specific length with Y44, see Order codes on page 2/57 80 ... 100 mm (3.15 ... 3.94 inch) Initial: 100 mm (3.94 inch) 101 ... 120 mm (3.98 ... 4.72 inch) Initial: 120 mm (4.72 inch) 121 ... 140 mm (4.76 ... 5.51 inch) Initial: 140 mm (5.51 inch) 141 ... 160 mm (5.55 ... 6.30 inch) Initial: 160 mm (6.3 inch) 161 ... 180 mm (6.34 ... 7.09 inch) Initial: 180 mm (7.09 inch) 181 ... 200 mm (7.13 ... 7.87 inch) Initial: 200 mm (7.87 inch) 201 ... 220 mm (7.91 ... 8.66 inch) Initial: 220 mm (8.66 inch) 221 ... 240 mm (8.7 ... 9.45 inch) Initial: 225 mm (8.86 inch) 241 ... 260 mm (9.48 ... 10.24 inch) Initial: 250 mm (9.84 inch) 261 ... 280 mm (10.28 ... 11.02 inch) Initial: 280 mm (11.02 inch) 281 ... 300 mm (11.02 ... 11.81 inch) Initial: 285 mm (11.22 inch) 301 ... 320 mm (11.85 ... 12.6 inch) Initial: 315 mm (12.4 inch) 321 ... 340 mm (12.64 ... 13.39 inch) Initial: 340 mm (13.39 inch) 341 ... 360 mm (13.43 ... 14.17 inch) Initial: 360 mm (14.17 inch) 361 ... 380 mm (14.21 ... 14.96 inch) Initial: 380 mm (14.96 inch) 381 ... 400 mm (15 ... 15.75 inch) Initial: 400 mm (15.75 inch) 401 ... 420 mm (15.79 ... 16.54 inch) Initial: 420 mm (16.54 inch) 421 ... 440 mm (16.57 ... 17.32 inch) Initial: 440 mm (17.32 inch) 441 ... 460 mm (17.36 ... 18.11 inch) Initial: 460 mm (18.11 inch) 461 ... 480 mm (18.15 ... 18.90 inch) Initial: 465 mm (18.30 inch) 481 ... 500 mm (18.94 ... 19.68 inch) Initial: 500 mm (19.68 inch) 501 ... 550 mm (19.72 ... 21.65 inch) Initial: 510 mm (20.08 inch) 551 ... 600 mm (21.69 ... 23.62 inch) Initial: 600 mm (23.62 inch) 601 ... 650 mm (23.66 ... 25.59 inch) Initial: 650 mm (25.59 inch)	0 1 0 2 0 3 0 4 0 5 0 6 0 7 1 1 1 2 1 3 1 4 1 5 1 6 2 0 2 1 2 2 2 3 2 4 2 5 2 6 2 7 3 1 3 2 3 3

Selection and Ordering data	Article No.
SITRANS TS500 Pipe version for minimal to medium stress, as per thermowell 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!

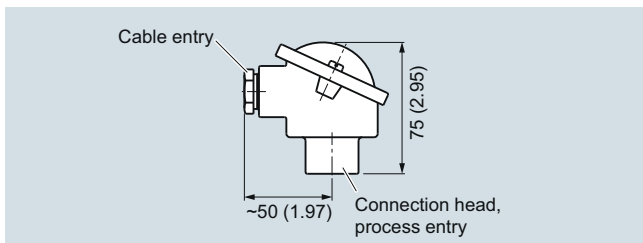
You find ordering examples on page 2/37!

Temperature Measurement

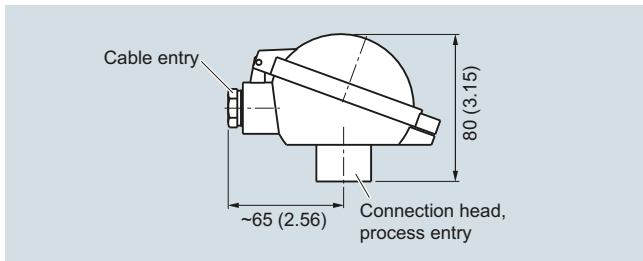
SITRANS TS500

Type 2, tubular version without process connection

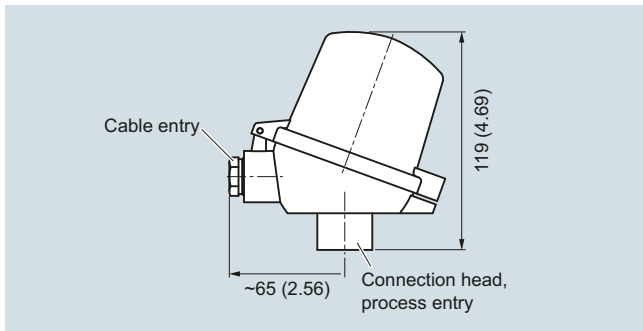
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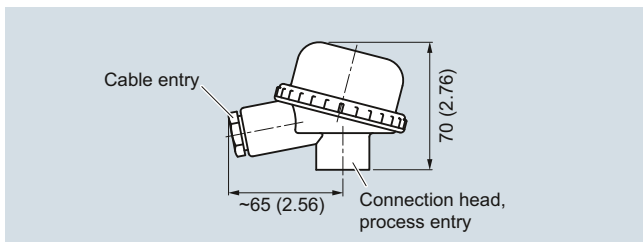
Connection head, aluminum, Type BA0, dimensions in mm (inch)



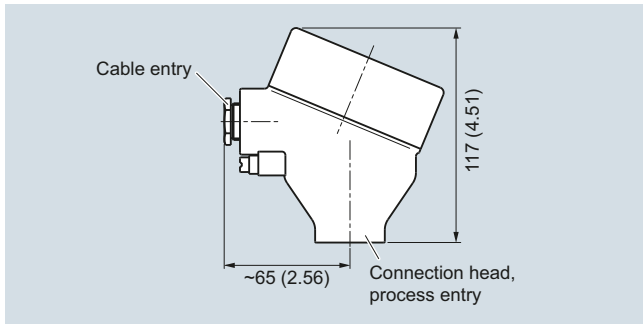
Connection head, aluminum, Type BB0, dimensions in mm (inch)



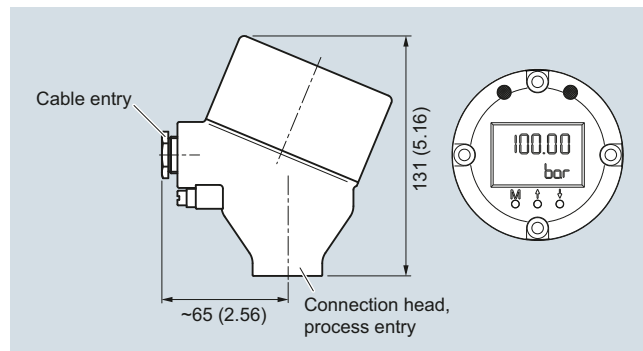
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



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)

Selection and Ordering data	Article No.	Selection and Ordering data	Order code
SITRANS TS500 Tubular version for minimal to medium stress, as per thermowell DIN 43722, Type 2, without process connection, without extension, plug-in or use with moveable compression fittings	7MC751- 	Options Add "-Z" to Article No. and add options, separate extensions with "+".	
Head Aluminum head, BA0, flange cover, Standard Aluminum head, BB0, low hinged cover, screw connection Aluminum head, BC0, high hinged cover, screw connection Aluminum head, AG0, screw cover, suitable for suitable for Ex d ¹⁾ Aluminum head, AH0, screw cover, suitable for Ex d, display ¹⁾ Plastic head, BM0, screw cover Plastic head, BP0, high hinged cover, screw connection Stainless steel head, AU0, screw cover, suitable for Ex d ¹⁾ Stainless steel head, AV0, screw cover, suitable for Ex d, display ¹⁾	A B C G H M P U V	Built-in head transmitter Measuring range to be set must be specified with plain text data "Y01". SITRANS TH100, 4 ... 20 mA, Pt100 SITRANS TH100 Ex i (ATEX), 4 ... 20 mA, Pt100 SITRANS TH200, 4 ... 20 mA, Universal SITRANS TH200 Ex i (ATEX), 4 ... 20 mA, Universal SITRANS TH300, HART, Universal SITRANS TH300 Ex i (ATEX), HART, Universal SITRANS TH400 PA, Universal SITRANS TH400 PA Ex i, Universal SITRANS TH400 FF, Universal SITRANS TH400 FF Ex i, Universal	T10 T11 T20 T21 T30 T31 T40 T41 T45 T46
Sensor Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/16 Pt100, basis, -50 ... +400 °C (-58 ... +752 °F) Pt100, vibration-resistant, -50 ... +400 °C (-58 ... +752 °F) Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F) Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F) Thermocouple Type J, -40 ... +750 °C (-40 ... +1 382 °F) Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832 °F)	A B C K J N	Explosion protection Intrinsic safety "ia", "ic" (please select Ex i version of the optional transmitter) Flameproof enclosure "d"; dust protection through housing "t" only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter) Non sparking "n"	E01 E03 E04
Sensor number/Accuracy Single, basic accuracy (Class 2/Class B) Single, increased accuracy (Class 1/Class A) Single, highest accuracy (Class AA) Double, basic accuracy (Class 2/Class B) Double, increased accuracy (Class 1/Class A) Double, highest accuracy (Class AA)	1 2 3 5 6 7	Certificates and approvals EN10204-3.1 Inspection certificate for materials coming into contact with media EN10204-3.1 Inspection certificate for hydrostatic pressure test EN10204-3.1 Inspection certificate for helium leak test EN10204-3.1 Inspection certificate for surface tear test EN10204-3.1 Inspection certificate: visual, measurement and functional inspection EN 10204-2.1: Declaration of compliance with the order ISO 9001 grease-free (cleaned for e.g. oxygen applications)	C12 C31 C32 C33 C34 C35 C51
		Designation, calibration Stainless steel TAG plate, enter lettering in plain text Plant calibration per 1 point, enter temperature in plain text	Y15 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 Enter measuring point (max. 8 characters) in plain text Transmitter, enter measuring point description (max. 16 characters) in plain text Transmitter, enter measuring point text (max. 32 characters) in plain text Transmitter, enter bus address in plain text Transmitter, fail-safe value 3.6 mA (instead of 22.8 mA) Transmitter with a SIL 2 conformity Transmitter with a SIL 2/3 conformity Transmitter test protocol (5 points)	Y01 Y17 Y23 Y24 Y25 U36 C20 C23 C11
Further designs Add "-Z" to Article No. and specify Order code.		Further options Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs) M12 plug (in combination with 1x Pt100 and/or transmitter, Non-Ex) Harting plug Han 7 D (Non Ex, without mating connector) Connection head with 1/2" NPT thread without cable gland, for AU0 and AH0 only IP66 with outer earth screw for heads AG0, AH0, AU0 and AV0 with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0 Compression fitting G1/2", enclosed Compression fitting NPT1/2", enclosed	G01 G12 G13 G20 A02 A03 A31 A32
Insertion length customer-specific Select range, enter desired length in plain text (No entry = standard length)	Y44		
Selection and Ordering data	Order code		

You find ordering examples on page 2/37!

Temperature Measurement

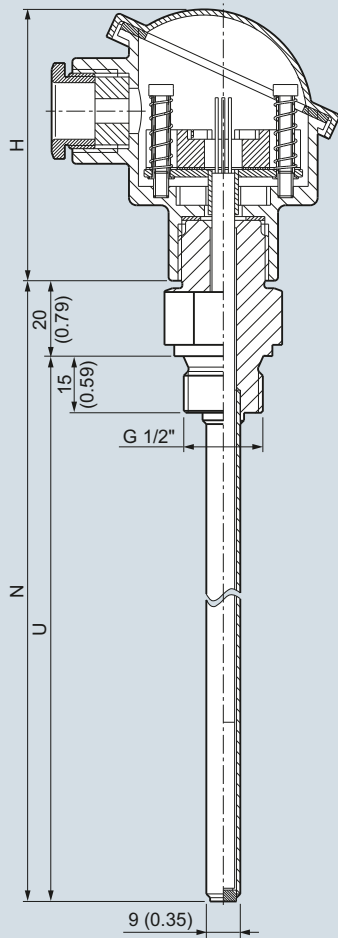
SITRANS TS500

Type 2N, tubular version with screw socket

Dimensional drawings

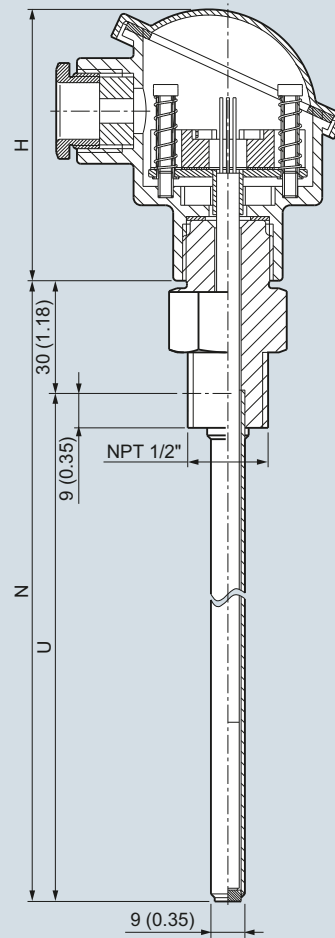
SITRANS TS500, temperature sensors for vessels and pipelines, tubular version for minimal to medium stress, thermowell Type 2N similar to DIN 43722, screwed in, without extension, non-alignable connection head.

2



H Head height
N Nominal length
U Insertion length

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



H Head height
N Nominal length
U Insertion length

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

Selection and Ordering data	Article No.
SITRANS TS500 Tubular thermowell, minimal to medium stress, Type 2N similar to DIN 43722, screwed in, without extension, for maximum process temperatures of 100 °C	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	
G ½" (½" BSPF)	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 2/61 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 Tubular thermowell, minimal to medium stress, Type 2N similar to DIN 43722, screwed in, without extension, for maximum process temperatures of 100 °C	7MC751-
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, (not adjustable)	0

Additional configurations on page after next page!

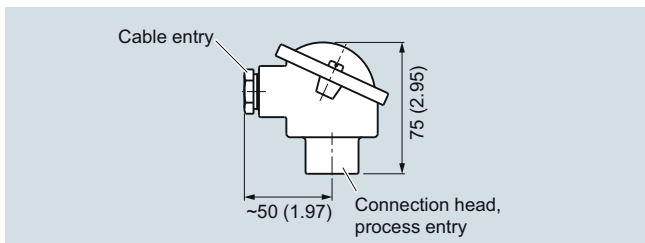
You find ordering examples on page 2/37!

Temperature Measurement

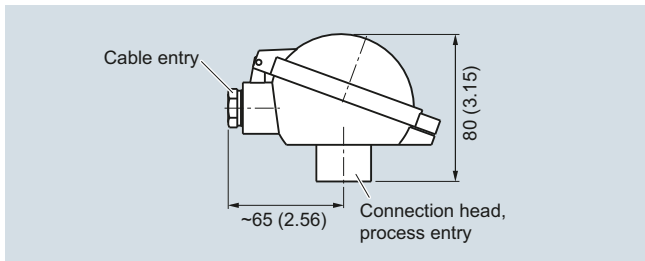
SITRANS TS500

Type 2N, tubular version with screw socket

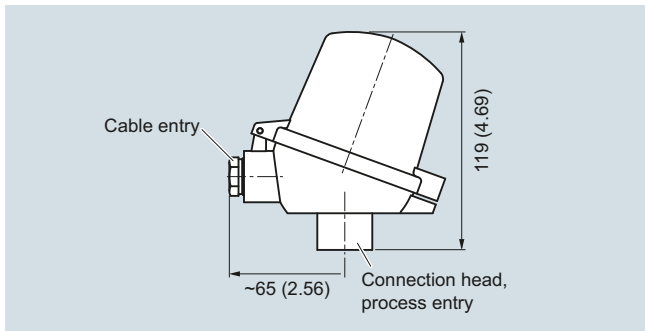
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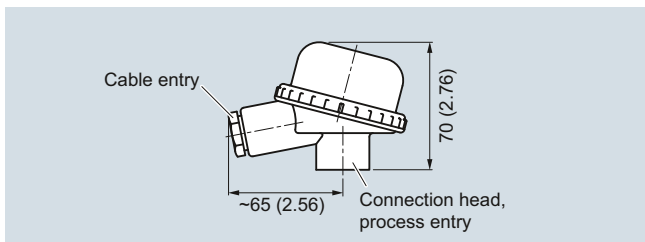
Connection head, aluminum, Type BA0, dimensions in mm (inch)



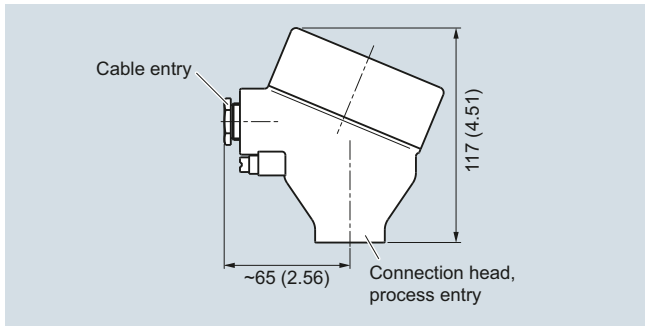
Connection head, aluminum, Type BB0, dimensions in mm (inch)



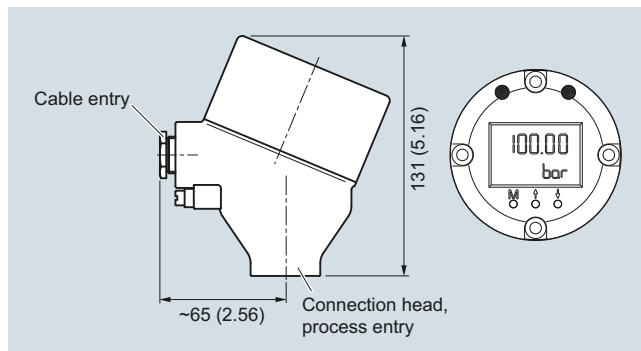
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



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)

Selection and Ordering data	Article No.
SITRANS TS500 Tubular thermowell, minimal to medium stress, Type 2N similar to DIN 43722, screwed in, 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, BMO, screw cover	M
Plastic head, BPO, 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	
Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/16	
Pt100, basis, -50 ... +400 °C (-58 ... +752 °F)	A
Pt100, vibration-resistant, -50 ... +400 °C (-58 ... +752 °F)	B
Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F)	C
Thermocouple Type 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	
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

Selection and Ordering data	Order code
Further designs	
Add "-Z" to Article No. and specify Order code.	
Insertion length customer-specific	Y44
Select range, enter desired length in plain text (No entry = standard length)	

Selection and Ordering data	Order code
Options	
Add "-Z" to Article No. and add options, separate extensions with "+".	
Built-in head transmitter	
Measuring range to be set must be specified with plain text data "Y01".	
SITRANS TH100, 4 ... 20 mA, Pt100	T10
SITRANS TH100 Ex i (ATEX), 4 ... 20 mA, Pt100	T11
SITRANS TH200, 4 ... 20 mA, Universal	T20
SITRANS TH200 Ex i (ATEX), 4 ... 20 mA, Universal	T21
SITRANS TH300, HART, Universal	T30
SITRANS TH300 Ex i (ATEX), HART, Universal	T31
SITRANS TH400 PA, Universal	T40
SITRANS TH400 PA Ex i, Universal	T41
SITRANS TH400 FF, Universal	T45
SITRANS TH400 FF Ex i, Universal	T46
Explosion protection	
Intrinsic safety "ia", "ic" (please select Ex i version of the optional transmitter)	E01
Flameproof enclosure "d"; dust protection through housing "t" only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter)	E03
Non sparking "n"	E04
Certificates and approvals	
EN10204-3.1 Inspection certificate for materials coming into contact with media	C12
EN10204-3.1 Inspection certificate for hydrostatic pressure test	C31
EN10204-3.1 Inspection certificate for helium leak test	C32
EN10204-3.1 Inspection certificate for surface tear test	C33
EN10204-3.1 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
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
Transmitter with a SIL 2 conformity	C20
Transmitter with a SIL 2/3 conformity	C23
Transmitter test protocol (5 points)	C11
Further options	
Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs)	G01
M12 plug (in combination with 1x Pt100 and/or transmitter, Non-Ex)	G12
Harting plug Han 7 D (Non Ex, without mating connector)	G13
Connection head with 1/2" 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

You find ordering examples on page 2/37!

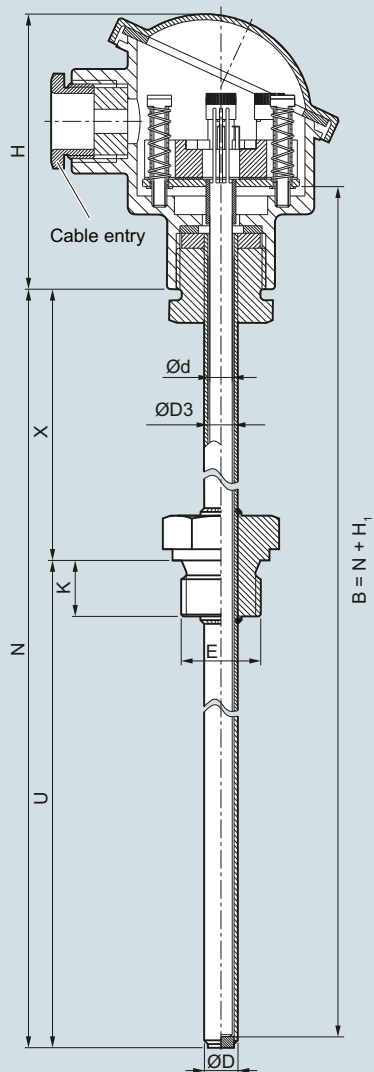
Temperature Measurement

SITRANS TS500

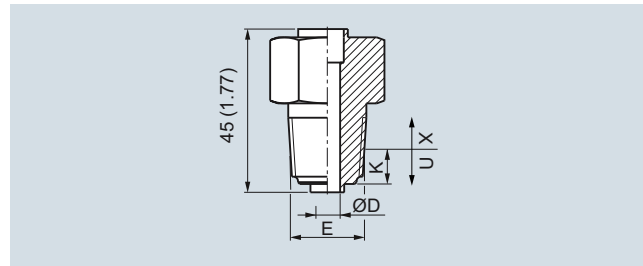
Type 2G, tubular version with screw socket and extension

Dimensional drawings

2



- 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
- H₁ Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)
- K Screw depth
- N Nominal length
- U Insertion length
- X Extension length



Tapered process connection, dimensions in mm (inch)

SITRANS TS500, temperature sensors for vessels and pipelines, tubular version for minimal to minimum to medium stress, thermowell as per DIN 43722, Type 2G, screwed in, with extension, dimensions in mm (inch)

Type 2G, tubular version with screw socket and extension

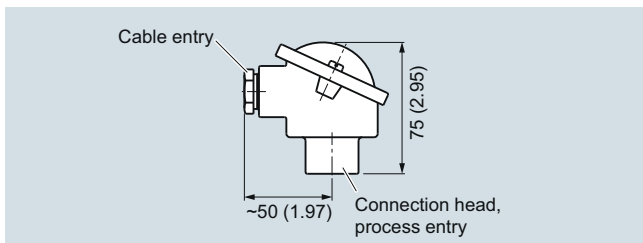
Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	7MC751-		SITRANS TS500	7MC751-	
Tubular thermowell, minimal to medium stress, thermowell as per DIN 43722, Type 2G, screwed in, with extension			Tubular thermowell, minimal to medium stress, thermowell as per DIN 43722, Type 2G, screwed in, 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		501...550 mm (19.72 ... 21.65 inch)	3 1	
316L (1.4404 or 1.4435)	2		Initial: 510 mm (20.08 inch)		
Process connection			551...600 mm (21.69 ... 23.62 inch)	3 2	
Cylindrical: G½ " (½ "BSPF)	1 C		Initial: 600 mm (23.62 inch)		
Cylindrical: G1 " (1 "BSPF)	1 E		601...650 mm (23.66 ... 25.59 inch)	3 3	
Tapered: NPT½ "	1 J		Initial: 650 mm (25.59 inch)		
Thermowell form			651...700 mm (25.63 ... 27.56 inch)	3 4	
2G, 9 mm (0.35 inch)	A		Initial: 700 mm (27.56 inch)		
2G, 12 mm (0.47 inch)	B		701...750 mm (27.60 ... 29.53 inch)	3 5	
Insertion length U standard			Initial: 750 mm (29.53 inch)		
160 mm (6.30 inch)	0 4		751...800 mm (29.57 ... 31.50 inch)	3 6	
250 mm (9.84 inch)	1 2		Initial: 800 mm (31.50 inch)		
400 mm (15.75 inch)	2 2		801...850 mm (31.54 ... 33.46 inch)	3 7	
Insertion length U customer-specific			Initial: 850 mm (33.46 inch)		
enter customer specific length with Y44, see page 2/65 Order codes			851...900 mm (33.50 ... 35.43 inch)	4 1	
80 ... 100 mm (3.15 ... 3.94 inch)	0 1		Initial: 900 mm (35.43 inch)		
Initial: 100 mm (3.94 inch)			901...950 mm (35.47 ... 37.40 inch)	4 2	
101 ... 120 mm (3.98 ... 4.72 inch)	0 2		Initial: 950 mm (37.40 inch)		
Initial: 120 mm (4.72 inch)			951...1 000 mm (37.44 ... 39.37 inch)	4 3	
121 ... 140 mm (4.76 ... 5.51 inch)	0 3		Initial: 1 000 mm (39.37 inch)		
Initial: 140 mm (5.51 inch)			1 001...1 100 mm (39.41 ... 43.31 inch)	4 4	
141 ... 160 mm (5.55 ... 6.30 inch)	0 4		Initial: 1 100 mm (43.31 inch)		
Initial: 160 mm (6.30 inch)			1 101...1 200 mm (43.35 ... 47.24 inch)	4 5	
161 ... 180 mm (6.34 ... 7.09 inch)	0 5		Initial: 1 200 mm (47.24 inch)		
Initial: 180 mm (7.09 inch)			1 201...1 300 mm (47.28 ... 51.18 inch)	4 6	
181 ... 200 mm (7.13 ... 7.87 inch)	0 6		Initial: 1 300 mm (51.18 inch)		
Initial: 200 mm (7.87 inch)			1 301...1 400 mm (51.22 ... 55.12 inch)	4 7	
201 ... 220 mm (7.91 ... 8.66 inch)	0 7		Initial: 1 400 mm (55.12 inch)		
Initial: 220 mm (8.66 inch)			1 401...1 500 mm (55.16 ... 59.05 inch)	5 1	
221...240 mm (8.70 ... 9.45 inch)	1 1		Initial: 1 500 mm (59.05 inch)		
Initial: 225 mm (8.86 inch)			Extension X		
241...260 mm (9.49 ... 10.24 inch)	1 2		Standard length for Type 2G DIN 43772 (X=129 mm (5.08 inch))	1	
Initial: 250 mm (9.84 inch)			Extension length X - customer specific		
261...280 mm (10.28 ... 11.02 inch)	1 3		enter customer specific length with Y45, see page 2/65 Order codes		
Initial: 280 mm (11.02 inch)			45 ... 150 mm (1.77 ... 5.91 inch)	9	N 1 D
281...300 mm (11.06 ... 11.81 inch)	1 4		Initial: 150 mm (5.91 inch)		
Initial: 285 mm (11.22 inch)			151 ... 300 mm (5.95 ... 11.81 inch)	9	N 2 D
301...320 mm (11.85 ... 13.00 inch)	1 5		Initial: 300 mm (11.81 inch)		
Initial: 315 mm (12.40 inch)			301 ... 450 mm (11.85 ... 17.72 inch)	9	N 3 D
321...340 mm (12.64 ... 13.39 inch)	1 6		Initial: 450 mm (17.72 inch)		
Initial: 340 mm (13.39 inch)			Additional configurations on page after next page!		
341...360 mm (13.43 ... 14.17 inch)	2 0		You find ordering examples on page 2/37!		
Initial: 360 mm (14.17 inch)					
361...380 mm (14.21 ... 14.96 inch)	2 1				
Initial: 380 mm (14.96 inch)					
381... 400 mm (14.99 ... 15.75 inch)	2 2				
Initial: 400 mm (15.75 inch)					
401...420 mm (15.79 ... 16.54 inch)	2 3				
Initial: 420 mm (16.54 inch)					
421...440 mm (16.57 ... 17.32 inch)	2 4				
Initial: 440 mm (17.32 inch)					
441...460 mm (17.36 ... 18.11 inch)	2 5				
Initial: 460 mm (18.11 inch)					
461...480 mm (18.15 ... 18.90 inch)	2 6				
Initial: 465 mm (18.30 inch)					
481...500 mm (18.94 ... 19.69 inch)	2 7				
Initial: 500 mm (19.69 inch)					

Temperature Measurement

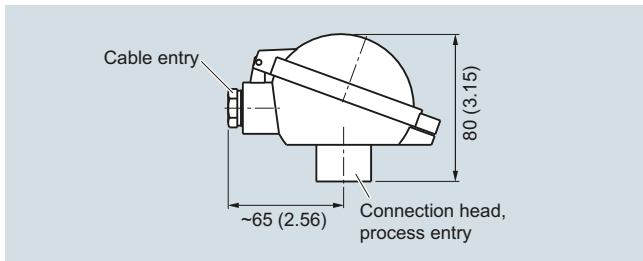
SITRANS TS500

Type 2G, tubular version with screw socket and extension

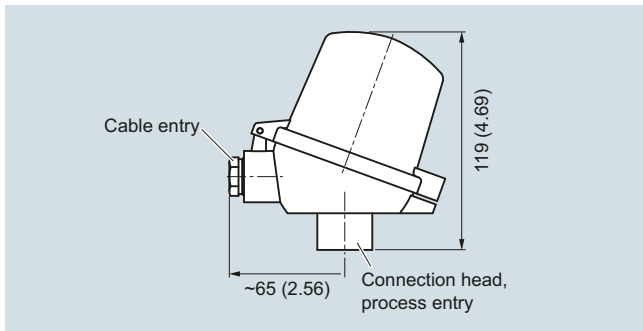
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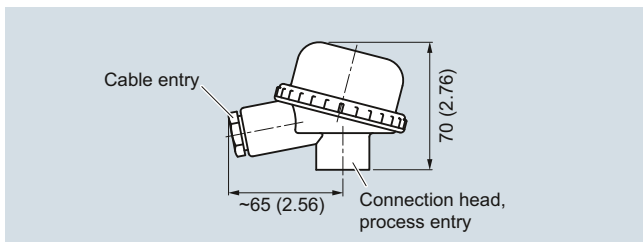
Connection head, aluminum, Type BA0, dimensions in mm (inch)



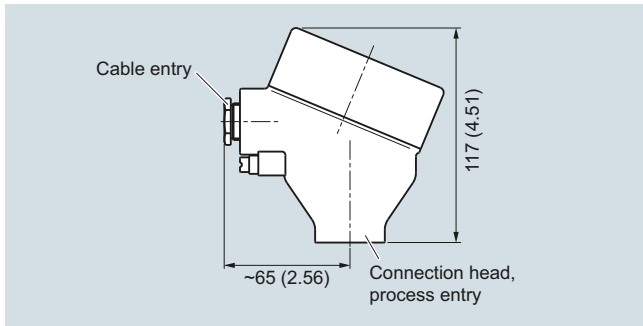
Connection head, aluminum, Type BB0, dimensions in mm (inch)



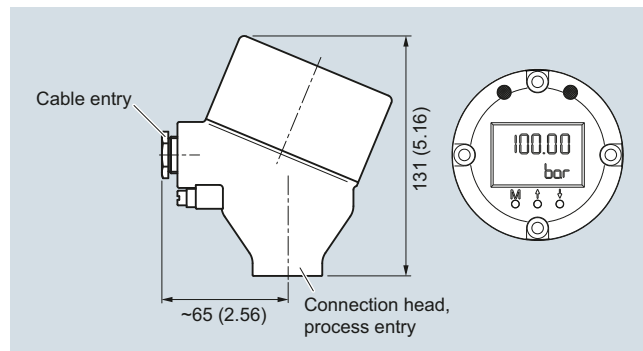
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



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)

Type 2G, tubular version with screw socket and extension

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Order code
SITRANS TS500 Tubular thermowell, minimal to medium stress, thermowell as per DIN 43722, Type 2G, screwed in, with extension	7MC751-		Options Add "-Z" to Article No. and add options, separate extensions with "+" .	
Head Aluminum head, BA0, flange cover, Standard Aluminum head, BB0, low hinged cover, screw connection Aluminum head, BC0, high hinged cover, screw connection Aluminum head, AG0, screw cover, suitable for Ex d ¹⁾ Aluminum head, AH0, screw cover, suitable for Ex d, display ¹⁾ Plastic head, BM0, screw cover Plastic head, BP0 high hinged cover, screw connection Stainless steel head, AU0, screw cover, suitable for Ex d ¹⁾ Stainless steel head, AV0, screw cover, suitable for Ex d, display ¹⁾		A B C G H M P U V	Built-in head transmitter Measuring range to be set must be specified with plain text data "Y01". SITRANS TH100, 4 ... 20 mA, Pt100 SITRANS TH100 Ex i (ATEX), 4 ... 20 mA, Pt100 SITRANS TH200, 4 ... 20 mA, Universal SITRANS TH200 Ex i (ATEX), 4 ... 20 mA, Universal SITRANS TH300, HART, Universal SITRANS TH300 Ex i (ATEX), HART, Universal SITRANS TH400 PA, Universal SITRANS TH400 PA Ex i, Universal SITRANS TH400 FF, Universal SITRANS TH400 FF Ex i, Universal	T10 T11 T20 T21 T30 T31 T40 T41 T45 T46
Sensor Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/16 Pt100, Basis, -50 ... +400 °C (-58 ... +752 °F) Pt100, vibration resistant, -50 ... +400 °C (-58 ... +752 °F) Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F) Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F) Thermocouple Type J, -40 ... +750 °C (-40 ... +1 382 °F) Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832 °F)		A B C K J N	Explosion protection Intrinsic safety "ia", "ic" (please select Ex i version of the optional transmitter) Flameproof enclosure "d"; dust protection through housing "t" only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter) Non sparking "n"	E01 E03 E04
Sensor number/Accuracy Single, basic accuracy (Class 2/Class B) Single, increased accuracy (Class 1/Class A) Single, highest accuracy (Class AA) Double, basic accuracy (Class 2/Class B) Double, increased accuracy (Class 1/Class A) Double, highest accuracy (Class AA)		1 2 3 5 6 7	Certificates and approvals EN10204-3.1 Inspection certificate for materials coming into contact with media EN10204-3.1 Inspection certificate for hydrostatic pressure test EN10204-3.1 Inspection certificate for helium leak test EN10204-3.1 Inspection certificate for surface tear test EN10204-3.1 Inspection certificate: visual, measurement and functional inspection EN 10204-2.1: Declaration of compliance with the order ISO 9001 grease-free (cleaned for e.g. oxygen applications)	C12 C31 C32 C33 C34 C35 C51
Designation, calibration Stainless steel TAG plate, enter lettering in plain text Plant calibration per 1 point, enter temperature in plain text			Designation, calibration Stainless steel TAG plate, enter lettering in plain text Plant calibration per 1 point, enter temperature in plain text	Y15 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 Enter measuring point (max. 8 characters) in plain text Transmitter, enter measuring point description (max. 16 characters) in plain text Transmitter, enter measuring point text (max. 32 characters) in plain text Transmitter, enter bus address in plain text Transmitter, fail-safe value 3.6 mA (instead of 22.8 mA) Transmitter with a SIL 2 conformity Transmitter with a SIL 2/3 conformity Transmitter test protocol (5 points)			Transmitter options Transmitter, enter complete setting in plain text (Y01: +/-NNNN ... +/-NNNN C,F), marking on the device when Order code "Y15" is selected Enter measuring point (max. 8 characters) in plain text Transmitter, enter measuring point description (max. 16 characters) in plain text Transmitter, enter measuring point text (max. 32 characters) in plain text Transmitter, enter bus address in plain text Transmitter, fail-safe value 3.6 mA (instead of 22.8 mA) Transmitter with a SIL 2 conformity Transmitter with a SIL 2/3 conformity Transmitter test protocol (5 points)	Y01 Y17 Y23 Y24 Y25 U36 C20 C23 C11
Further options Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs) M12 plug (in combination with 1x Pt100 and/or transmitter, Non-Ex) Harting plug Han 7 D (Non Ex, without mating connector) Connection head with 1/2" NPT thread without cable gland, for AU0 and AH0 only IP66 with outer earth screw for heads AG0, AH0, AU0 and AV0 with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0			Further options Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs) M12 plug (in combination with 1x Pt100 and/or transmitter, Non-Ex) Harting plug Han 7 D (Non Ex, without mating connector) Connection head with 1/2" NPT thread without cable gland, for AU0 and AH0 only IP66 with outer earth screw for heads AG0, AH0, AU0 and AV0 with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	G01 G12 G13 G20 A02 A03
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			

¹⁾ Ex d in connection with Order code E03

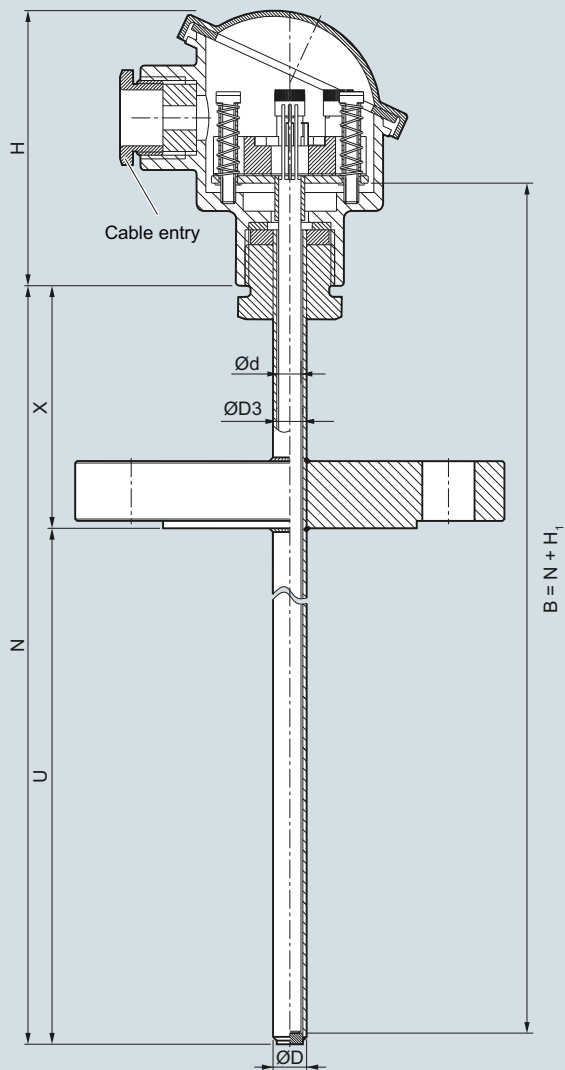
You find ordering examples on page 2/37!

Temperature Measurement

SITRANS TS500

Type 2F, tubular version 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
- H₁ Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)
- N Nominal length
- U Insertion length
- X Extension length

SITRANS TS500, temperature sensors for vessels and pipelines, tubular version for minimal to minimum to medium stress, thermowell as per DIN 43722, Type 2F, with flange, with extension, dimensions in mm (inch)

Type 2F, tubular version with flange and extension

2

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500 Tubular thermowell, minimal to medium stress, thermowell as per DIN 43722, Type 2F, 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) 316L (1.4404 or 1.4435)	1 2	
Process connection Flange EN, DN 25 PN 40 B1 Flange ASME, 1"RF150 Flange ASME, 1"RF300 Flange ASME, 1.5"RF150 Flange ASME, 1.5"RF300	2 A 2 E 2 F 2 G 2 H	
Thermowell form 2F, 9 mm (0.35 inch) 2F, 12 mm (0.47 inch)	A B	
Insertion U standard 225 mm (8.86 inch) 315 mm (12.40 inch) 465 mm (18.31 inch)	1 1 1 5 2 6	
Insertion length U customer-specific enter customer specific length with Y44, see page 2/69 Order codes 80 ... 100 mm (3.15 ... 3.94 inch) Initial: 100 mm (3.94 inch) 101 ... 120 mm (3.98 ... 4.72 inch) Initial: 120 mm (4.72 inch) 121 ... 140 mm (4.76 ... 5.51 inch) Initial: 140 mm (5.51 inch) 141 ... 160 mm (5.55 ... 6.30 inch) Initial: 160 mm (6.30 inch) 161 ... 180 mm (6.34 ... 7.09 inch) Initial: 180 mm (7.09 inch) 181 ... 200 mm (7.13 ... 7.87 inch) Initial: 200 mm (7.87 inch) 201 ... 220 mm (7.91 ... 8.66 inch) Initial: 220 mm (8.66 inch) 221 ... 240 mm (8.70 ... 9.45 inch) Initial: 225 mm (8.86 inch) 241 ... 260 mm (9.49 ... 10.24 inch) Initial: 250 mm (9.84 inch) 261 ... 280 mm (10.28 ... 11.02 inch) Initial: 280 mm (11.02 inch) 281 ... 300 mm (11.06 ... 11.81 inch) Initial: 285 mm 11.22 inch) 301 ... 320 mm (11.85 ... 13.00 inch) Initial: 315 mm (12.40 inch) 321 ... 340 mm (12.64 ... 13.39 inch) Initial: 340 mm (13.39 inch) 341 ... 360 mm (13.43 ... 14.17 inch) Initial: 360 mm (14.17 inch) 361 ... 380 mm (14.21 ... 14.96 inch) Initial: 380 mm (14.96 inch) 381 ... 400 mm (14.99 ... 15.75 inch) Initial: 400 mm (15.75 inch) 401 ... 420 mm (15.79 ... 16.54 inch) Initial: 420 mm (16.54 inch) 421 ... 440 mm (16.57 ... 17.32 inch) Initial: 440 mm (17.32 inch) 441 ... 460 mm (17.36 ... 18.11 inch) Initial: 460 mm (18.11 inch) 461 ... 480 mm (18.15 ... 18.90 inch) Initial: 465 mm (18.30 inch) 481 ... 500 mm (18.94 ... 19.69 inch) Initial: 500 mm (19.69 inch)	0 1 0 2 0 3 0 4 0 5 0 6 0 7 1 1 1 2 1 3 1 4 1 5 1 6 2 0 2 1 2 2 2 3 2 4 2 5 2 6 2 7	

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500 Tubular thermowell, minimal to medium stress, thermowell as per DIN 43722, Type 2F, with flange, with extension	7MC751-	
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 2/69 Order codes 45 ... 150 mm (1.77 ... 5.91 inch) Initial: 150 mm (5.91 inch) 151 ... 300 mm (5.95 ... 11.81 inch) Initial: 300 mm (11.81 inch) 301 ... 450 mm (11.85 ... 17.72 inch) Initial: 450 mm (17.72 inch)		9 N 1 D 9 N 2 D 9 N 3 D

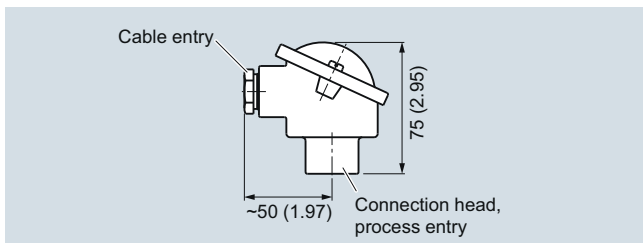
Additional configurations on page after next page!
You find ordering examples on page 2/37!

Temperature Measurement

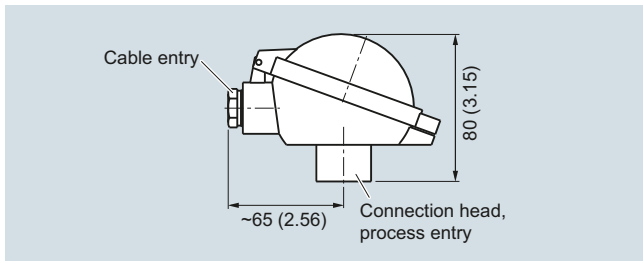
SITRANS TS500

Type 2F, tubular version with flange and extension

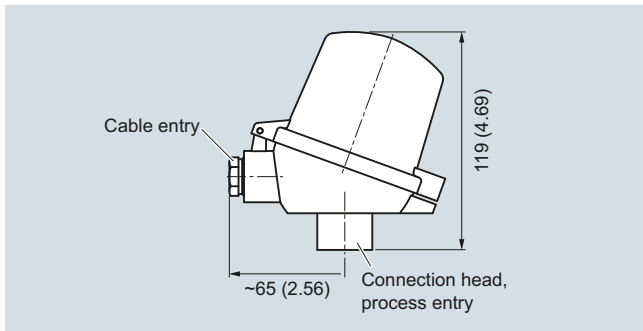
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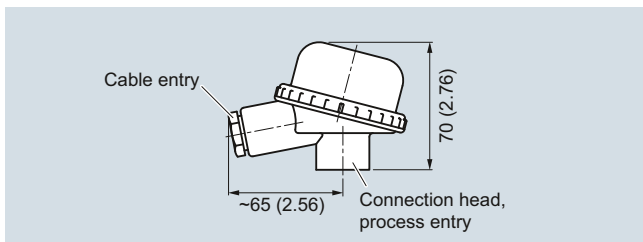
Connection head, aluminum, Type BA0, dimensions in mm (inch)



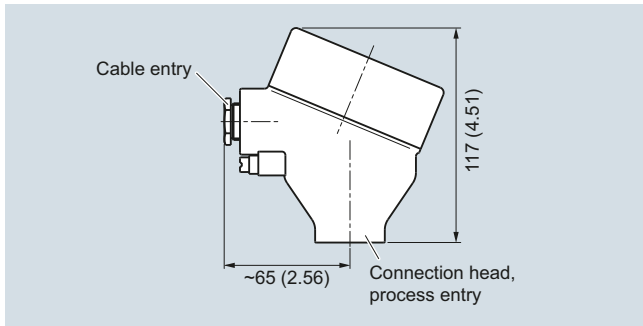
Connection head, aluminum, Type BB0, dimensions in mm (inch)



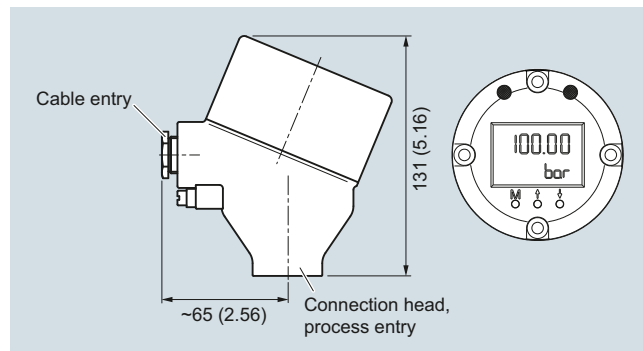
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



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)

Type 2F, tubular version with flange and extension

Selection and Ordering data	Article No.	Selection and Ordering data	Order code
SITRANS TS500	7MC751-	Options Add "-Z" to Article No. and add options, separate extensions with "+".	
Tubular thermowell, minimal to medium stress, thermowell as per DIN 43722, Type 2F, with flange, with extension		Built-in head transmitter Measuring range to be set must be specified with plain text data "Y01". SITRANS TH100, 4 ... 20 mA, Pt100 SITRANS TH100 Ex i (ATEX), 4 ... 20 mA, Pt100 SITRANS TH200, 4 ... 20 mA, Universal SITRANS TH200 Ex i (ATEX), 4 ... 20 mA, Universal SITRANS TH300, HART, Universal SITRANS TH300 Ex i (ATEX), HART, Universal SITRANS TH400 PA, Universal SITRANS TH400 PA Ex i, Universal SITRANS TH400 FF, Universal SITRANS TH400 FF Ex i, Universal	T10 T11 T20 T21 T30 T31 T40 T41 T45 T46
Head Aluminum head, BA0, flange cover, Standard Aluminum head, BB0, low hinged cover, screw connection Aluminum head, BC0, high hinged cover, screw connection Aluminum head, AG0, screw cover, suitable for Ex d ¹⁾ Aluminum head, AH0, screw cover, suitable for Ex d, display ¹⁾ Plastic head, BMO, screw cover Plastic head, BPOhigh hinged cover, screw connection Stainless steel head, AU0, screw cover, suitable for Ex d ¹⁾ Stainless steel head, AV0, screw cover, suitable for Ex d, display ¹⁾	A B C G H M P U V	Explosion protection Intrinsic safety "ia", "ic" (please select Ex i version of the optional transmitter) Flameproof enclosure "d"; dust protection through housing "t" only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter) Non sparking "n"	E01 E03 E04
Sensor Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/16 Pt100, Basis, -50 ... +400 °C (-58 ... +752 °F) Pt100, vibration resistant, -50 ... +400 °C (-58 ... +752 °F) Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F) Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F) Thermocouple Type J, -40 ... +750 °C (-40 ... +1 382 °F) Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832 °F)	A B C K J N	Certificates and approvals EN10204-3.1 Inspection certificate for materials coming into contact with media EN10204-3.1 Inspection certificate for hydrostatic pressure test EN10204-3.1 Inspection certificate for helium leak test EN10204-3.1 Inspection certificate for surface tear test EN10204-3.1 Inspection certificate: visual, measurement and functional inspection EN 10204-2.1: Declaration of compliance with the order ISO 9001 grease-free (cleaned for e.g. oxygen applications)	C12 C31 C32 C33 C34 C35 C51
Sensor number/Accuracy Single, basic accuracy (Class 2/Class B) Single, increased accuracy (Class 1/Class A) Single, highest accuracy (Class AA) Double, basic accuracy (Class 2/Class B) Double, increased accuracy (Class 1/Class A) Double, highest accuracy (Class AA)	1 2 3 5 6 7	Designation, calibration Stainless steel TAG plate , enter lettering in plain text Plant calibration per 1 point, enter temperature in plain text	Y15 Y33
¹⁾ Ex d in connection with Order code E03		Transmitter options Transmitter, enter complete setting in plain text (Y01:+/NNNN ... +/-NNNN C,F), marking on the device when Order code "Y15" is selected Enter measuring point (max. 8 characters) in plain text Transmitter, enter measuring point description (max. 16 characters) in plain text Transmitter, enter measuring point text (max. 32 characters) in plain text Transmitter, enter bus address in plain text Transmitter, fail-safe value 3.6 mA (instead of 22.8 mA) Transmitter with a SIL 2 conformity Transmitter with a SIL 2/3 conformity Transmitter test protocol (5 points)	Y01 Y17 Y23 Y24 Y25 U36 C20 C23 C11
Selection and Ordering data	Order code	Further options Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs) M12 plug (in combination with 1x Pt100 and/or transmitter, Non-Ex) Harting plug Han 7 D (Non Ex, without mating connector) Connection head with ½" NPT thread without cable gland, for AU0 and AH0 only IP66 with outer earth screw for heads AG0, AH0, AU0 and AV0 with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	G01 G12 G13 G20 A02 A03
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		

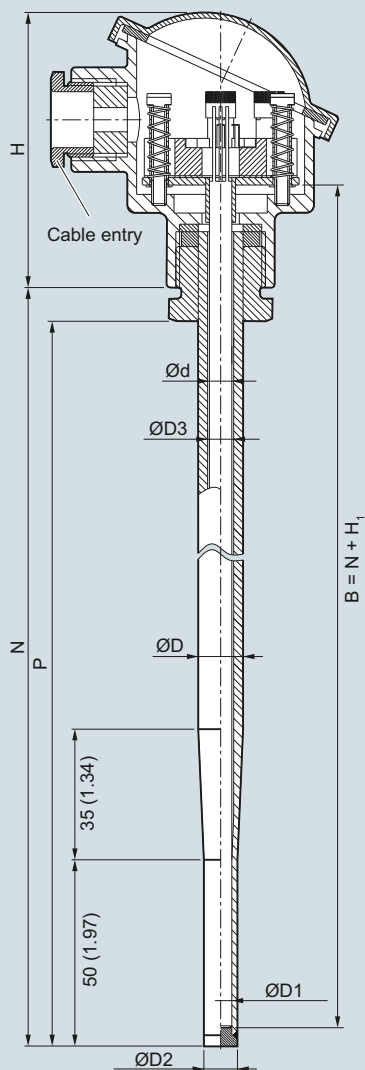
You find ordering examples on page 2/37!

Temperature Measurement

SITRANS TS500

Type 3, tubular quick without process connection

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 diameter
- H Head height
- H₁ Type Axx> 41 (1.61)
Type Bxx> 26 (1.02)
- N Nominal length
- P Space for process connection

SITRANS TS500, temperature sensors for vessel and pipings, tubular version for minimum to medium stress, without process connection, with-out extension, plug-in or use with moveable compression fitting, dimension in mm (inch)

Type 3, tubular quick without process connection

2

Selection and Ordering data	Article No.
SITRANS TS500	7MC751-
Tubular version for minimal to medium stress, thermowell per 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 2/73 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 version for minimal to medium stress, thermowell per 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!

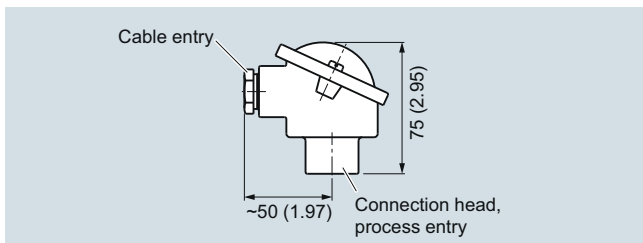
You find ordering examples on page 2/3!

Temperature Measurement

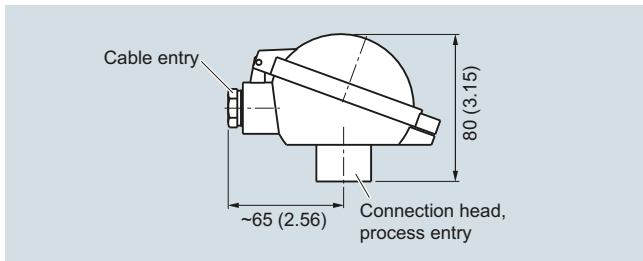
SITRANS TS500

Type 3, tubular quick without process connection

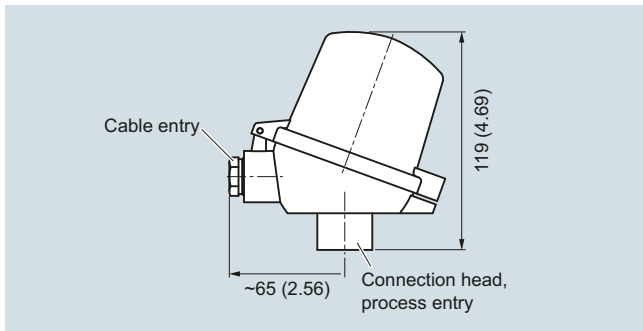
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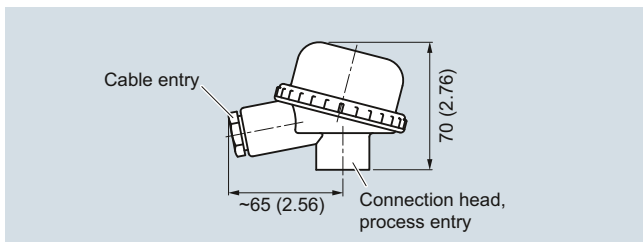
Connection head, aluminum, Type BA0, dimensions in mm (inch)



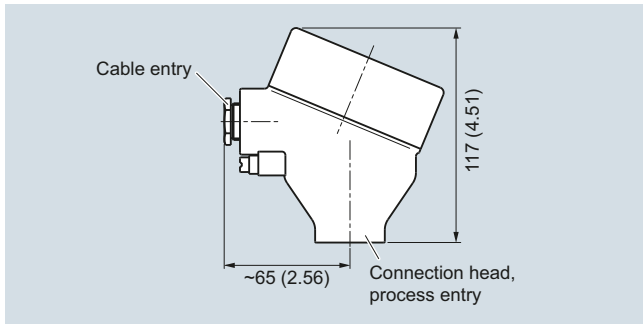
Connection head, aluminum, Type BB0, dimensions in mm (inch)



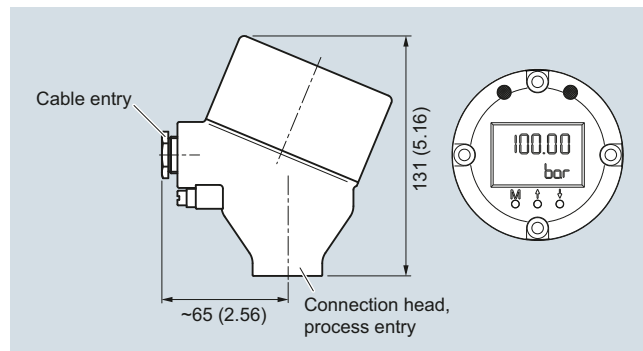
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



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)

Type 3, tubular quick without process connection

2

Selection and Ordering data	Article No.
SITRANS TS500	7MC751-
Tubular version for minimal to medium stress, thermowell as per 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	
Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/16	
Pt100, basis, -50 ... +400 °C (-58 ... +752 °F)	A
Pt100, vibration-resistant, -50 ... +400 °C (-58 ... +752 °F)	B
Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F)	C
Thermocouple Type J, only class 2, -40 ... +750 °C (-40 ... +1 382 °F)	J
Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F)	K
Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832 °F)	N
Sensor number/Accuracy	
Single, basic accuracy (Class 2/Class B)	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

Selection and Ordering data	Order code
Further designs	
Add "-Z" to Article No. and specify Order code.	
Insertion length customer-specific	Y44
Select range, enter desired length in plain text (No entry = standard length)	

Selection and Ordering data	Order code
Options	
Add "-Z" to Article No. and add options, separate extensions with "+" .	
Built-in head transmitter	
Measuring range to be set must be specified with plain text data "Y01".	
SITRANS TH100, 4 ... 20 mA, Pt100	T10
SITRANS TH100 Ex i (ATEX), 4 ... 20 mA, Pt100	T11
SITRANS TH200, 4 ... 20 mA, Universal	T20
SITRANS TH200 Ex i (ATEX), 4 ... 20 mA, Universal	T21
SITRANS TH300, HART, Universal	T30
SITRANS TH300 Ex i (ATEX), HART, Universal	T31
SITRANS TH400 PA, Universal	T40
SITRANS TH400 PA Ex i, Universal	T41
SITRANS TH400 FF, Universal	T45
SITRANS TH400 FF Ex i, Universal	T46
Explosion protection	
Intrinsic safety "ia", "ic" (please select Ex i version of the optional transmitter)	E01
Flameproof enclosure "d"; dust protection through housing "t" only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter)	E03
Non sparking "n"	E04
Certificates and approvals	
EN10204-3.1 Inspection certificate for materials coming into contact with media	C12
EN10204-3.1 Inspection certificate for hydrostatic pressure test	C31
EN10204-3.1 Inspection certificate for helium leak test	C32
EN10204-3.1 Inspection certificate for surface tear test	C33
EN10204-3.1 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
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
Transmitter with a SIL 2 conformity	C20
Transmitter with a SIL 2/3 conformity	C23
Transmitter test protocol (5 points)	C11
Further options	
Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs)	G01
M12 plug (in combination with 1x Pt100 and/or transmitter, Non-Ex)	G12
Harting plug Han 7 D (Non Ex, without mating connector)	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

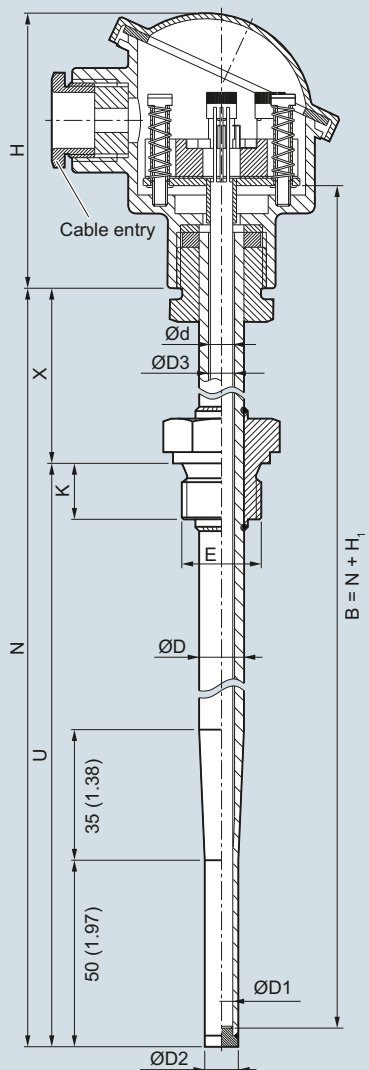
You find ordering examples on page 2/37!

Temperature Measurement

SITRANS TS500

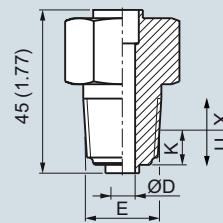
Type 3G, tubular quick with screw socket and extension

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
- H₁ Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)
- K Screw depth
- N Nominal length
- U Insertion length
- X Extension length

SITRANS TS500, temperature sensors for vessels and pipelines, tubular version for minimal to minimum to medium stress, thermowell as per DIN 43722, Type 3G, screwed in, with extension, dimensions in mm (inch)



Tapered process connection, dimensions in mm (inch)

Type 3G, tubular quick with screw socket and extension

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	7MC751-	
Tubular thermowell, minimal to medium stress, thermowell as per DIN 43722, Type 3G, screwed in, 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" inch (½" BSPF)	1 C	
Cylindrical: G1" inch (1" BSPF)	1 E	
Tapered: NPT½"	1 J	
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 2/77 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, minimal to medium stress, thermowell as per DIN 43722, Type 3G, screwed in, 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 2/77 Order codes		
55 ... 150 mm (2.17 ... 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!

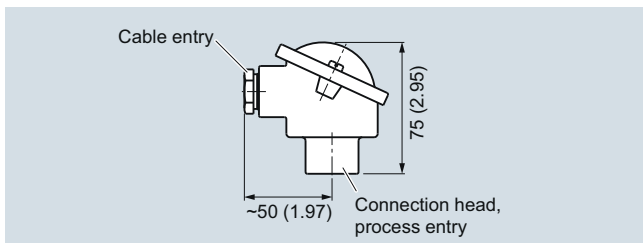
You find ordering examples on page 2/37!

Temperature Measurement

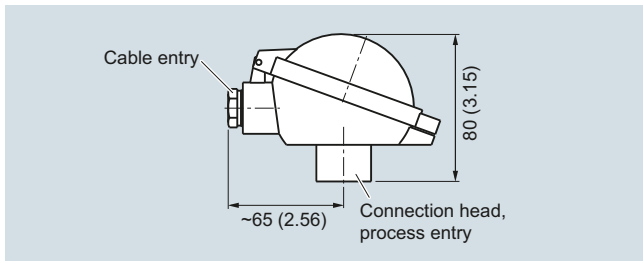
SITRANS TS500

Type 3G, tubular quick with screw socket and extension

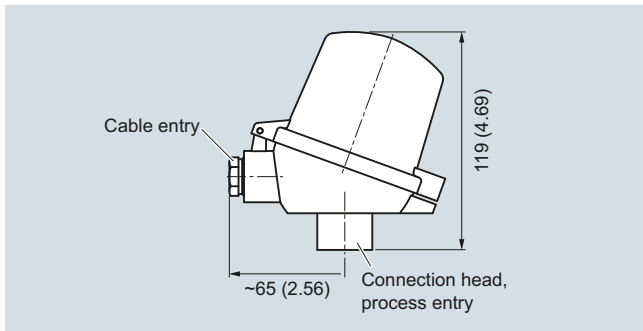
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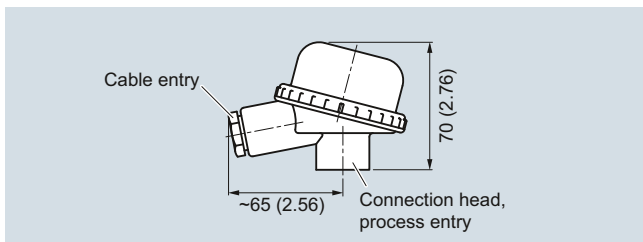
Connection head, aluminum, Type BA0, dimensions in mm (inch)



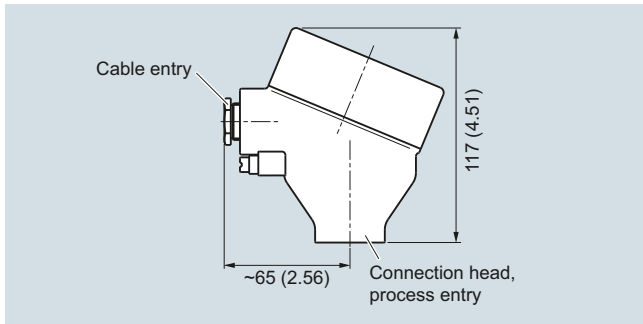
Connection head, aluminum, Type BB0, dimensions in mm (inch)



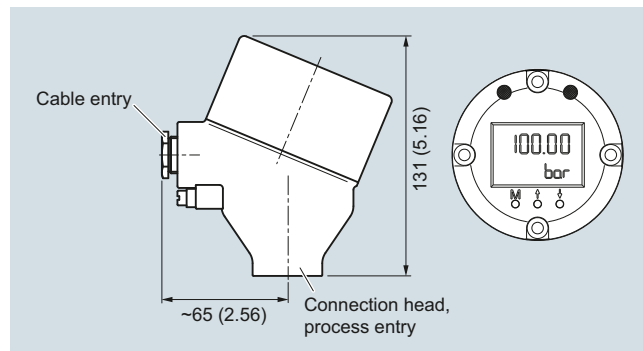
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



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)

Type 3G, tubular quick with screw socket and extension

Selection and Ordering data	Article No.	Selection and Ordering data	Order code
SITRANS TS500 Tubular thermowell, minimal to medium stress, thermowell as per DIN 43722, Type 3G, screwed in, with extension	7MC751-	Options Add "-Z" to Article No. and add options, separate extensions with "+" .	
Head Aluminum head, BA0, flange cover, Standard Aluminum head, BB0, low hinged cover, screw connection Aluminum head, BC0, high hinged cover, screw connection Aluminum head, AG0, screw cover, suitable for Ex d ¹⁾ Aluminum head, AH0, screw cover, suitable for Ex d, display ¹⁾ Plastic head, BM0, screw cover Plastic head, BP0 high hinged cover, screw connection Stainless steel head, AU0, screw cover, Ex d ¹⁾ Stainless steel head, screw cover, Ex d, display ¹⁾	A B C G H M P U V	Built-in head transmitter Measuring range to be set must be specified with plain text data "Y01". SITRANS TH100, 4 ... 20 mA, Pt100 SITRANS TH100 Ex i (ATEX), 4 ... 20 mA, Pt100 SITRANS TH200, 4 ... 20 mA, Universal SITRANS TH200 Ex i (ATEX), 4 ... 20 mA, Universal SITRANS TH300, HART, Universal SITRANS TH300 Ex i (ATEX), HART, Universal SITRANS TH400 PA, Universal SITRANS TH400 PA Ex i, Universal SITRANS TH400 FF, Universal SITRANS TH400 FF Ex i, Universal	T10 T11 T20 T21 T30 T31 T40 T41 T45 T46
Sensor Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/16 Pt100, basis, -50 ... +400 °C (-58 ... +752 °F) Pt100, vibration resistant, -50 ... +400 °C (-58 ... +752 °F) Pt100, expanded range, -196 ... +600 °C (-321 ... 1 112 °F) Thermocouple Type J, only class 2, -40 ... +750 °C (-40 ... +1 382 °F) Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F) Thermocouple Type N, -40 ... +000 °C (-40 ... +1 832 °F)	A B C J K N	Explosion protection Intrinsic safety "ia", "ic" (please select Ex i version of the optional transmitter) Flameproof enclosure "d"; dust protection through housing "t" only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter) Non sparking "n"	E01 E03 E04
Sensor number/Accuracy Single, basic accuracy (Class 2/Class B) Single, increased accuracy (Class 1/Class A) Single, highest accuracy (Class AA) Double, basic accuracy (Class 2/Class B) Double, increased accuracy (Class 1/Class A) Double, highest accuracy (Class AA)	1 2 3 5 6 7	Certificates and approvals EN10204-3.1 Inspection certificate for materials coming into contact with media EN10204-3.1 Inspection certificate for hydrostatic pressure test EN10204-3.1 Inspection certificate for helium leak test EN10204-3.1 Inspection certificate for surface tear test EN10204-3.1 Inspection certificate: visual, measurement and functional inspection EN 10204-2.1: Declaration of compliance with the order ISO 9001 grease-free (cleaned for e.g. oxygen applications)	C12 C31 C32 C33 C34 C35 C51
Further designs Add "-Z" to Article No. and specify Order code.		Designation, calibration Stainless steel TAG plate, enter lettering in plain text Plant calibration per 1 point, enter temperature in plain text	Y15 Y33
Insertion length customer-specific Select range, enter desired length in plain text (No entry = standard length)	Y44	Transmitter options Transmitter, enter complete setting in plain text (Y01: +/-NNNN ... +/-NNNN C,F), marking on the device when Order code "Y15" is selected Enter measuring point (max. 8 characters) in plain text Transmitter, enter measuring point description (max. 16 characters) in plain text Transmitter, enter measuring point text (max. 32 characters) in plain text Transmitter, enter bus address in plain text Transmitter, fail-safe value 3.6 mA (instead of 22.8 mA) Transmitter with a SIL 2 conformity Transmitter with a SIL 2/3 conformity Transmitter test protocol (5 points)	Y01 Y17 Y23 Y24 Y25 U36 C20 C23 C11
Extension length customer-specific Select range, enter desired length in plain text (No entry = standard length)	Y45	Further options Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs) M12 plug (in combination with 1x Pt100 and/or transmitter, Non-Ex) Harting plug Han 7 D (Non Ex, without mating connector) Connection head with 1/2" NPT thread without cable gland, for AU0 and AH0 only IP66 with outer earth screw for heads AG0, AH0, AU0 and AV0 with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	G01 G12 G13 G20 A02 A03

¹⁾ Ex d in connection with Order code E03

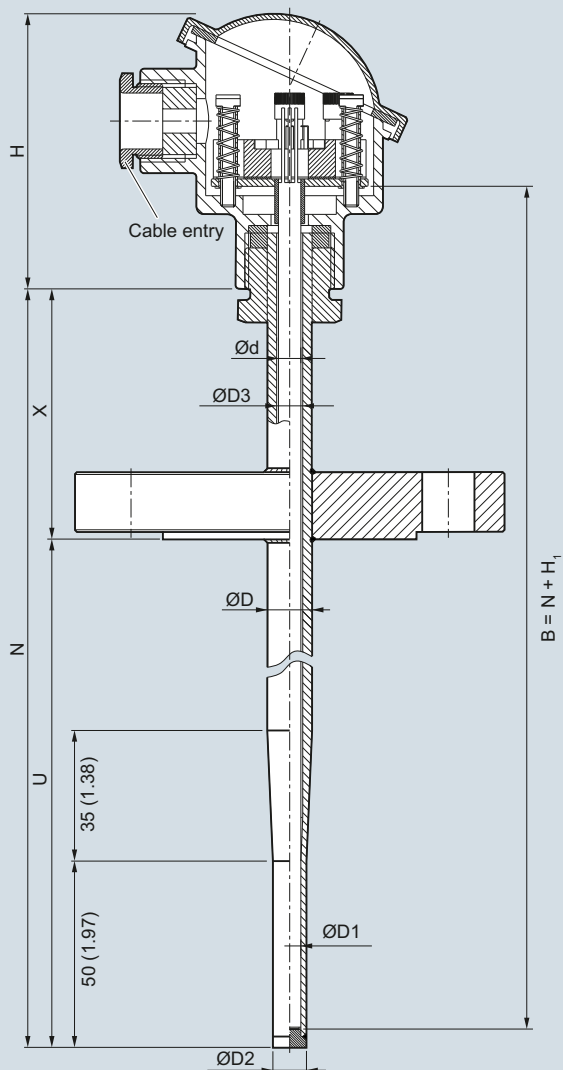
You find ordering examples on page 2/37!

Temperature Measurement

SITRANS TS500

Type 3F, tubular quick with flange and 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
- H Head height
- H₁ Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)
- N Nominal length
- U Insertion length
- X Extension length

SITRANS TS500, temperature sensors for vessels and pipelines, tubular version for minimal to minimum to medium stress, thermowell as per DIN 43722, Type 3F, with flange, with extension, dimensions in mm (inch)

Type 3F, tubular quick with flange and extension

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	7MC751-	
Tubular thermowell, minimal to medium stress, thermowell as per DIN 43722, Type 3F, 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; DN25PN40 B1	2 A	
Flange ASME; 1"RF150	2 E	
Flange ASME; 1"RF300	2 F	
Flange ASME; 1.5"RF150	2 G	
Flange ASME; 1.5"RF300	2 H	
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 2/81 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	

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	7MC751-	
Tubular thermowell, minimal to medium stress, thermowell as per DIN 43722, Type 3F, with flange, 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	
1 001 ... 1 100 mm (39.41 ... 43.31 inch) Initial: 1 100 mm (43.31 inch)	4 4	
Extension Standard length for Type 2G DIN 43772 (X=66 mm (2.60 inch))	1	
Extension length - customer specific enter customer specific length with Y45, see page 2/81 Order codes		
55 ... 150 mm (2.17 ... 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!

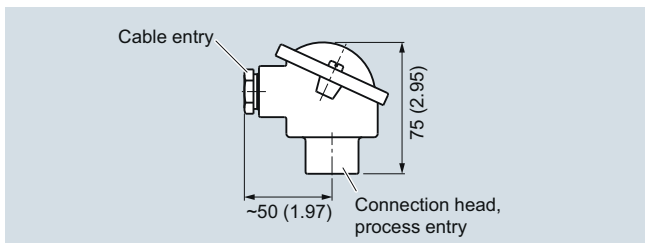
You find ordering examples on page 2/37!

Temperature Measurement

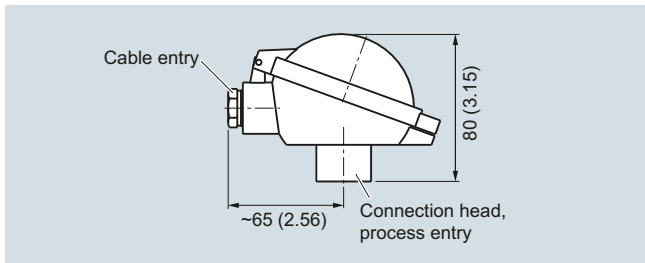
SITRANS TS500

Type 3F, tubular quick with flange and extension

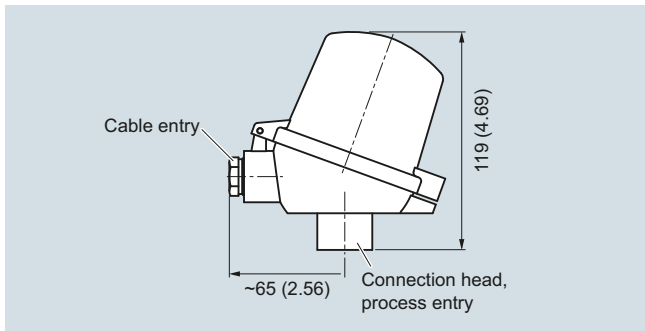
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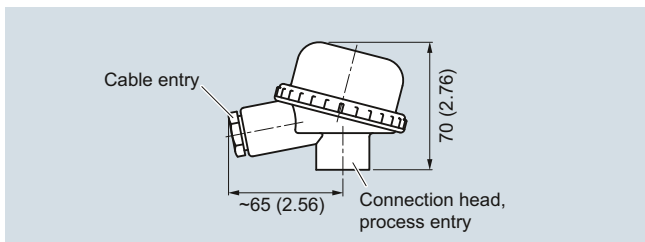
Connection head, aluminum, Type BA0, dimensions in mm (inch)



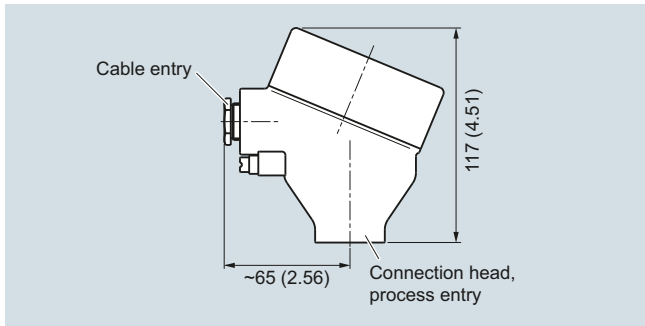
Connection head, aluminum, Type BB0, dimensions in mm (inch)



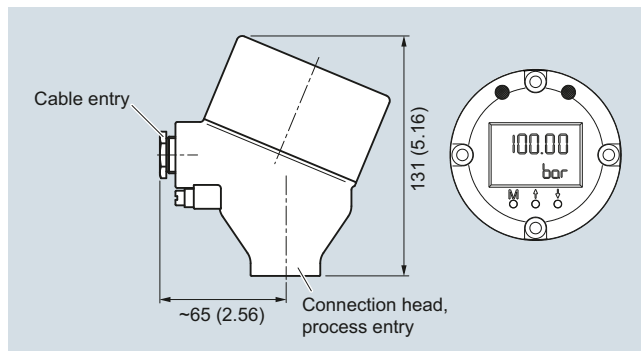
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



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)

Type 3F, tubular quick with flange and extension

2

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Order code
SITRANS TS500 Tubular thermowell, minimal to medium stress, thermowell as per DIN 43722, Type 3F, with flange, with extension	7MC751-		Options Add "-Z" to Article No. and add options, separate extensions with "+".	
Head Aluminum head, BA0, flange cover, Standard Aluminum head, BB0, low hinged cover, screw connection Aluminum head, BC0, high hinged cover, screw connection Aluminum head, AG0, screw cover, suitable for Ex d ¹⁾ Aluminum head, AH0, screw cover, suitable for Ex d, display ¹⁾ Plastic head, BM0, screw cover Plastic head, BP0 high hinged cover, screw connection Stainless steel head, AU0, screw cover, Ex d ¹⁾ Stainless steel head, screw cover, Ex d, display ¹⁾		A B C G H M P U V	Built-in head transmitter Measuring range to be set must be specified with plain text data "Y01". SITRANS TH100, 4 ... 20 mA, Pt100 SITRANS TH100 Ex i (ATEX), 4 ... 20 mA, Pt100 SITRANS TH200, 4 ... 20 mA, Universal SITRANS TH200 Ex i (ATEX), 4 ... 20 mA, Universal SITRANS TH300, HART, Universal SITRANS TH300 Ex i (ATEX), HART, Universal SITRANS TH400 PA, Universal SITRANS TH400 PA Ex i, Universal SITRANS TH400 FF, Universal SITRANS TH400 FF Ex i, Universal	T10 T11 T20 T21 T30 T31 T40 T41 T45 T46
Sensor Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/16 Pt100, basis, -50 ... +400 °C (-58 ... +752 °F) Pt100, vibration resistant, -50 ... +400 °C (-58 ... +752 °F) Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F) Thermocouple Type J, only class 2, -40 ... +750 °C (-40 ... +1 382 °F) Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F) Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832 °F)		A B C J K N	Explosion protection Intrinsic safety "ia", "ic" (please select Ex i version of the optional transmitter) Flameproof enclosure "d"; dust protection through housing "t" only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter) Non sparking "n"	E01 E03 E04
Sensor number/Accuracy Single, basic accuracy (Class 2/Class B) Single, increased accuracy (Class 1/Class A) Single, highest accuracy (Class AA) Double, basic accuracy (Class 2/Class B) Double, increased accuracy (Class 1/Class A) Double, highest accuracy (Class AA)		1 2 3 5 6 7	Certificates and approvals EN10204-3.1 Inspection certificate for materials coming into contact with media EN10204-3.1 Inspection certificate for hydrostatic pressure test EN10204-3.1 Inspection certificate for helium leak test EN10204-3.1 Inspection certificate for surface tear test EN10204-3.1 Inspection certificate: visual, measurement and functional inspection EN 10204-2.1: Declaration of compliance with the order ISO 9001 grease-free (cleaned for e.g. oxygen applications)	C12 C31 C32 C33 C34 C35 C51
¹⁾ Ex d in connection with Order code E03			Designation, calibration Stainless steel TAG plate, enter lettering in plain text Plant calibration per 1 point, enter temperature in plain text	Y15 Y33
Selection and Ordering data			Transmitter options Transmitter, enter complete setting in plain text (Y01:+/NNNN ... +/-NNNN C,F) Enter measuring point (max. 8 characters) in plain text Transmitter, enter measuring point description (max. 16 characters) in plain text Transmitter, enter measuring point text (max. 32 characters) in plain text Transmitter, enter bus address in plain text Transmitter, fail-safe value 3.6 mA (instead of 22.8 mA) Transmitter with a SIL 2 conformity Transmitter with a SIL 2/3 conformity Transmitter test protocol (5 points)	Y01 Y17 Y23 Y24 Y25 U36 C20 C23 C11
Further designs Add "-Z" to Article No. and specify Order code.			Further options Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs) M12 plug (in combination with 1x Pt100 and/or transmitter, Non-Ex) Harting plug Han 7 D (Non Ex, without mating connector) Connection head with ½" NPT thread without cable gland, for AU0 and AH0 only IP66 with outer earth screw for heads AG0, AH0, AU0 and AV0 with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	G01 G12 G13 G20 A02 A03
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		

You find ordering examples on page 2/37!

Temperature Measurement

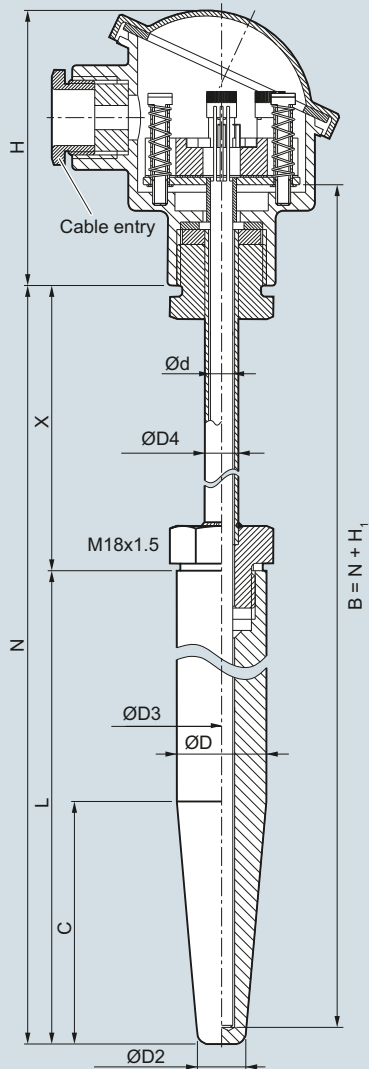
SITRANS TS500

Type 4+4F barstock thermowell, with extension

Dimensional drawings

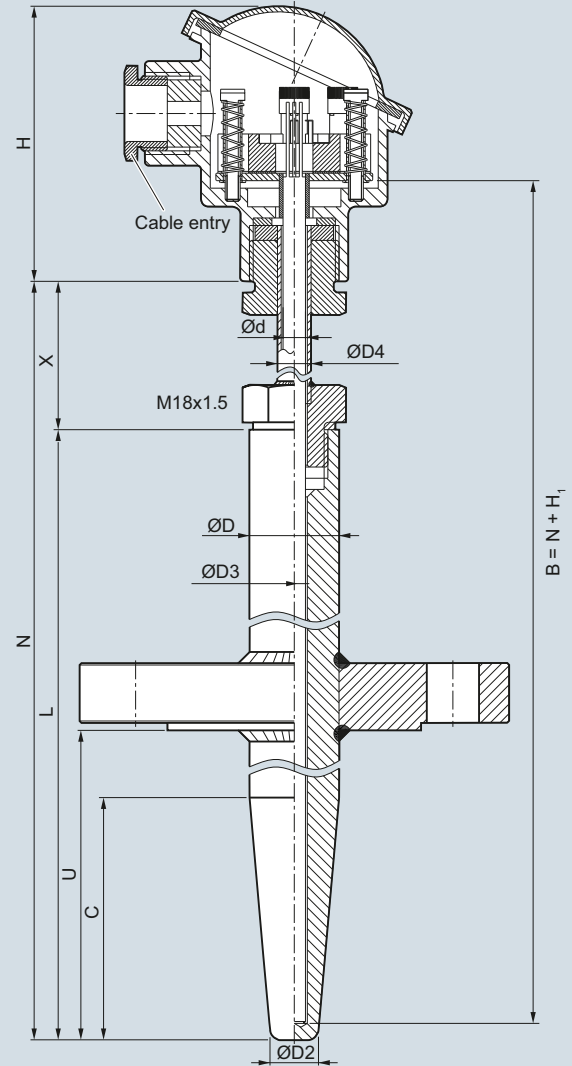
SITRANS TS500, temperature sensors for vessels and pipelines, barstock version for minimal to minimum to medium stress, thermowell as per DIN 43722.

2



- 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
- ØD3 Thermowell internal diameter
- ØD4 Extension outer diameter
- H Head height
- H₁ Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)
- L Length of thermowell
- N Nominal length
- X Extension length

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
- ØD3 Thermowell internal diameter
- ØD4 Extension outer diameter
- H Head height
- H₁ 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

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

Type 4+4F barstock thermowell, with extension

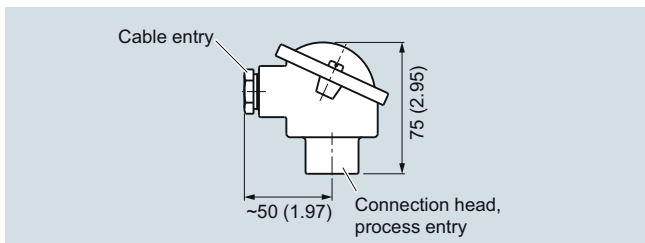
Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500	7MC752-		SITRANS TS500	7MC752-	
Barstock thermowell for medium to highest stress, thermowell as per DIN 43722, Type 4, for welding in, Type 4F with flange, with extension			Barstock thermowell for medium to highest stress, thermowell as per 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			Head		
316Ti (1.4571)	1		Aluminum head, BA0, flange cover, Standard		A
316L (1.4404 or 1.4435)	2		Aluminum head, BB0, low hinged cover, screw connection		B
1.7335 heat resistant, only for versions without flange	3		Aluminum head, BC0, high hinged cover, screw connection		C
1.5415 heat resistant, only for versions without flange	4		Aluminum head, AG0, screw cover, suitable for Ex d ¹⁾		G
Process connection			Aluminum head, AH0, screw cover, suitable for Ex d, display ¹⁾		H
Without (for welding in)	0 N		Plastic head, BMO, screw cover		M
Flange DN 25 PN 40 B1	2 A		Plastic head, BP0 high hinged cover, screw connection		P
Flange 1"RF150	2 E		Stainless steel head, AU0, screw cover, Ex d ¹⁾		U
Flange 1"RF300	2 F		Stainless steel head, AV0, screw cover, Ex d, display ¹⁾		V
Flange 1.5"RF150	2 G				
Flange 1.5"RF300	2 H		Sensor		
Thermowell form			Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/16		
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))			Pt100, basis, -50 ... +400 °C (-58 ... +752)		A
Type 4/4F,		A 0 0	Pt100, vibration resistant, -50 ... +400 °C (-58 ... +752)		B
L=140 mm (5.51 inch), C=65 mm (3.74 inch), ØD=24 mm (0.95 inch), Ød=6 mm (0.24 inch)			Pt100, expanded range, -196 ... 600 °C (-321 ... +1 112)		C
Type 4/4F,		B 0 0	Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832)		K
L=200 mm (7.87 inch), C=65 mm (3.74 inch), ØD=24 mm (0.95 inch), Ød=6 mm (0.24 inch)			Thermocouple Type J, only class 2, -40 ... +750 °C (-40 ... +1 382)		J
Type 4/4F,		D 0 0	Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832)		N
L=200 mm (7.87 inch), C=125 mm (4.92 inch), ØD=24 mm (0.95 inch), Ød=6 mm (0.24 inch)			Sensor number/Accuracy		
Type 4/4F,		E 0 0	Single, basic accuracy (Class 2/Class B)		1
L=260 mm (10.24 inch), C=125 mm (4.92 inch), ØD=24 mm (0.95 inch), Ød=6 mm (0.24 inch)			Single, increased accuracy (Class 1/Class A)		2
Extension X			Single, highest accuracy (Class AA)		3
as per DIN 43772		1	Double, basic accuracy (Class 2/Class B)		5
(X=149 mm (5.87 inch))			Double, increased accuracy (Class 1/Class A)		6
Extension X, customer-specific			Double, highest accuracy (Class AA)		7
enter customer specific length with Y45, see page 2/85 Order codes					
55 ... 150 mm (2.17 ... 5.91 inch)		9	1) Ex d in connection with Order code E03		
Initial: 150 mm (5.91 inch)			Additional configurations on page after next page!		
151 ... 300 mm (5.95 ... 11.81 inch)		9	You find ordering examples on page 2/37!		
Initial: 300 mm (11.81 inch)					
301 ... 450 mm (11.85 ... 17.72 inch)		9			
Initial: 450 mm (17.72 inch)					
451 ... 600 mm (17.86 ... 23.62 inch)		9			
Initial: 600 mm (23.62 inch)					
601 ... 750 mm (23.66 ... 29.53 inch)		9			
Initial: 750 mm (29.53 inch)					
751 ... 900 mm (29.57 ... 45.43 inch)		9			
Initial: 900 mm (45.43 inch)					
901 ... 1 050 mm (45.47 ... 41.34 inch)		9			
Initial: 1 050 mm (41.34 inch)					

Temperature Measurement

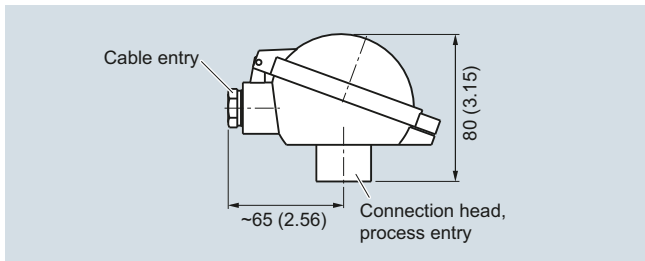
SITRANS TS500

Type 4+4F barstock thermowell, with extension

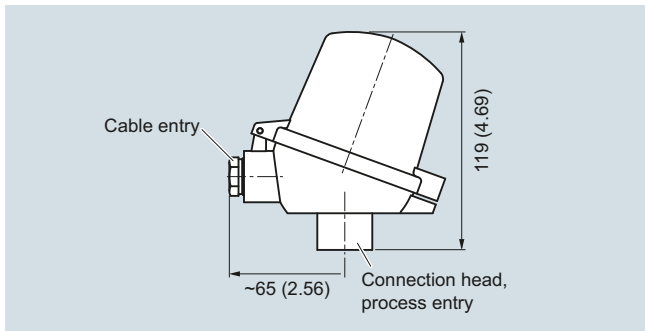
2



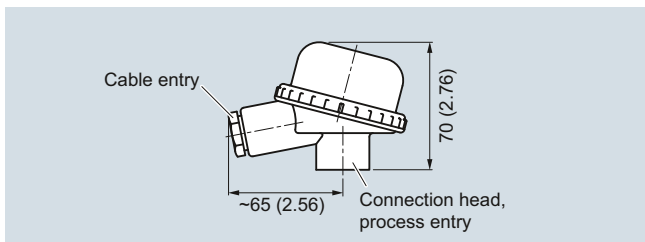
Connection head, aluminum, Type BA0, dimensions in mm (inch)



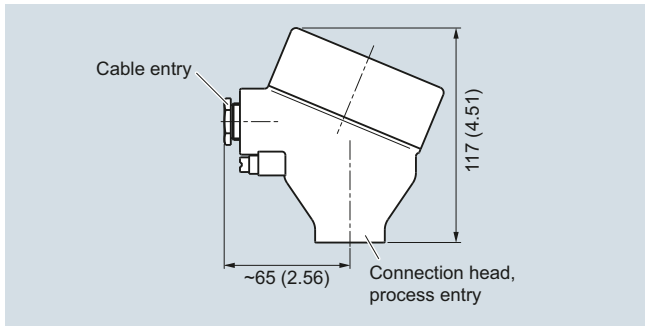
Connection head, aluminum, Type BB0, dimensions in mm (inch)



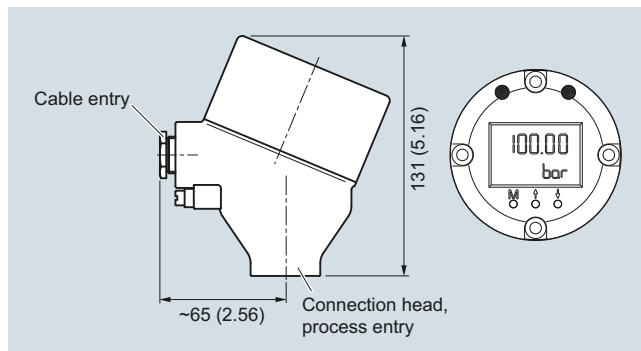
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



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)

Selection and Ordering data	Order code	Selection and Ordering data	Order code
Further designs Add "-Z" to Article No. and specify Order code.		Designation, calibration Stainless steel TAG plate , enter lettering in plain text Plant calibration per 1 point, enter temperature in plain text	Y15 Y33
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	Transmitter options Transmitter, enter complete setting in plain text (Y01: +/--NNNN ... +/--NNNN C,F), marking on the device when Order code "Y15" is selected Enter measuring point (max. 8 characters) in plain text	Y01 Y17
Extension length customer-specific Select range, enter desired length in plain text (No entry = standard length)	Y45	Transmitter, enter measuring point description (max. 16 characters) in plain text Transmitter, enter measuring point text (max. 32 characters) in plain text Transmitter, enter bus address in plain text Transmitter, fail-safe value 3.6 mA (instead of 22.8 mA)	Y23 Y24 Y25 U36
Options Add "-Z" to Article No. and add options, separate extensions with "+".		Transmitter with a SIL 2 conformity Transmitter with a SIL 2/3 conformity Transmitter test protocol (5 points)	C20 C23 C11
Built-in head transmitter Measuring range to be set must be specified with plain text data "Y01". SITRANS TH100, 4 ... 20 mA, Pt100 SITRANS TH100 Ex i (ATEX), 4 ... 20 mA, Pt100 SITRANS TH200, 4 ... 20 mA, Universal SITRANS TH200 Ex i (ATEX), 4 ... 20 mA, Universal SITRANS TH300, HART, Universal SITRANS TH300 Ex i (ATEX), HART, Universal SITRANS TH400 PA, Universal SITRANS TH400 PA Ex i, Universal SITRANS TH400 FF, Universal SITRANS TH400 FF Ex i, Universal	T10 T11 T20 T21 T30 T31 T40 T41 T45 T46	Further options Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs) M12 plug (in combination with 1x Pt100 and/or transmitter, Non-Ex) Harting plug Han 7 D (Non Ex, without mating connector) Connection head with ½ NPT thread without cable gland, for AU0 and AH0 only IP66 with outer earth screw for heads AG0, AH0, AU0 and AV0 with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	G01 G12 G13 G20 A02 A03
Explosion protection Intrinsic safety "ia", "ic" (please select Ex i version of the optional transmitter) Flameproof enclosure "d"; dust protection through housing "t" only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter) Non sparking "n"	E01 E03 E04		
Certificates and approvals EN10204-3.1 Inspection certificate for materials coming into contact with media EN10204-3.1 Inspection certificate for hydrostatic pressure test EN10204-3.1 Inspection certificate for helium leak test EN10204-3.1 Inspection certificate for surface tear test EN10204-3.1 Inspection certificate: visual, measurement and functional inspection EN 10204-2.1: Declaration of compliance with the order NACE Standard MR-01-75 compliance ISO 9001 grease-free (cleaned for e.g. oxygen applications)	C12 C31 C32 C33 C34 C35 C50 C51		

You find ordering examples on page 2/37!

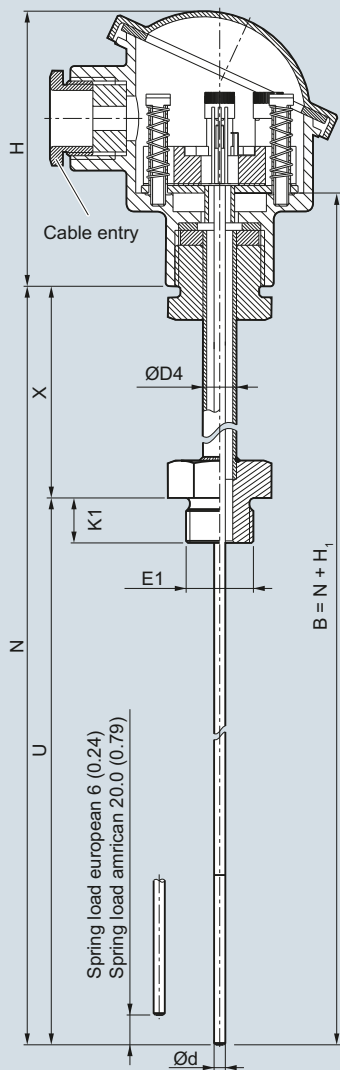
Temperature Measurement

SITRANS TS500

For the installation of existing protective tubes

Dimensional drawings

2



- B Measuring insert length
- Ød Measuring insert outer diameter
- ØD4 Extension outer diameter
- E1 Process connection, thread size
- H Head height
- H₁ Type Axx = 41 (1.61)
Type Bxx = 26 (1.02)
- K1 Screw depth
- N Nominal length
- U Insertion length
- X Extension length

Recommended rebound = inside length of the protective tube + 3 (0.12)

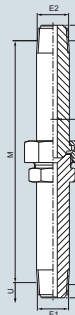
SITRANS TS500, temperature sensors for vessels and pipings, temperature sensors for installation in existing thermowells, suitable for thermowells as per DIN 43772 as well as ASME B40.9-2001 with extension European or American types, dimensions in mm (inch)



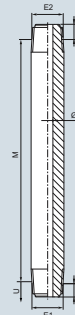
Neck tube (1, 2, 3), adjustable, european, cylindrical, dimensions in mm (inch)



Neck tube NPT (1, 2, 3), adjustable, european, conical, dimensions in mm (inch)



Neck tube NUN, adjustable, conical, european (5), american (8), dimensions in mm (inch)



Neck tube, nipple, non adjustable, conical, european (4), american (6), dimensions in mm (inch)

¹⁾ Numerics 1 ... 8: s. Selection and Ordering data option extension page 2/87

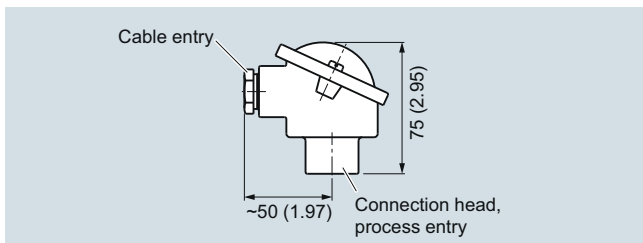
Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code	
SITRANS TS500 Temperature sensors for installation in existing thermowells, suitable for thermowells as per DIN 43772 as well as ASME B40.9-2001 with extension European or American types	7MC7500-		SITRANS TS500 Temperature sensors for installation in existing thermowells, suitable for thermowells as per 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		Extension X European type: X=65 (M=80 mm) (3.15 inch) adjustable European type: X=139 mm (5.47 inch) (M=155 mm (6.10 inch)) adjustable (DIN standard length for L=110) European type: X=149 mm (5.87 inch) (M=165 mm (6.50 inch)) adjustable European type: NIP, =150 mm (5.91 inch) not adjustable (NPT $\frac{1}{2}$ "*) European type: X=150 mm (5.91 inch) NUN adjustable (NPT $\frac{1}{2}$ "*) American type: X=74 mm (2.91 inch) integrated sensor spring, NIP, not adjustable (NPT $\frac{1}{2}$ "*) American type: X=150 mm (5.91 inch) integrated sensor spring NUN adjustable (NPT $\frac{1}{2}$ "*)		1	
Thread type G $\frac{1}{2}$ " (½" BSPF) (not for American type) NPT $\frac{1}{2}$ " M14x1.5 (not for American type) M18x1.5 (not for American type)	C J T U				2	
Insertion length U free length, standard lengths 110 mm (4.33 inch) 140 mm (5.51 inch) 200 mm (7.87 inch) 260 mm (10.24 inch) 410 mm (16.14 inch)	B 1 B 2 C 1 C 2 E 1				3	
Insertion U free length, customer-specific enter customer specific length with Y44, see page 2/89 Order codes 10 ... 100 mm (0.39 ... 3.94 inch) Initial: 100 mm (3.94 inch) 101 ... 200 mm (3.98 ... 7.87 inch) Initial: 200 mm (7.87 inch) 201 ... 300 mm (7.91 ... 11.81 inch) Initial: 300 mm (11.81 inch) 301 ... 400 mm (11.85 ... 15.75 inch) Initial: 400 mm (15.75 inch) 401 ... 500 mm (15.79 ... 19.68 inch) Initial: 500 mm (19.68 inch) 501 ... 600 mm (19.72 ... 23.62 inch) Initial: 600 mm (23.62 inch) 601 ... 800 mm (23.66 ... 31.50 inch) Initial: 800 mm (31.50 inch) 801 ... 1 000 mm (31.54 ... 39.37 inch) Initial: 1 000 mm (39.37 inch) 1 001 ... 1 250 mm (39.41 ... 49.21 inch) Initial: 1 250 mm (49.21 inch) 1 251 ... 1 500 mm (49.25 ... 59.05 inch) Initial: 1 500 mm (59.05 inch)	A 0 B 0 C 0 D 0 E 0 F 0 G 0 H 0 J 0 K 0				4 5 6 8	
Measurement tip diameter 6 mm (0.24 inch) 8 mm (0.31 inch) (with sleeve) 10 mm (0.39 inch) (with sleeve)	6 8 0		Extension X, customer-specific enter customer specific length with Y45, see page 2/89 Order codes 55 ... 150 mm (2.17 ... 5.91 inch) Standard: 150 mm (5.91 inch) 151 ... 300 mm (5.95 ... 11.81 inch) Standard: 300 mm (11.81 inch) 301 ... 450 mm (11.85 ... 17.72 inch) Standard: 450 mm (17.72 inch)		9 9 9	
			Model European type (M24 adjustable)		N 1 N 2 N 3 D	
			Additional configurations on page after next page! You find ordering examples on page 2/37!			

Temperature Measurement

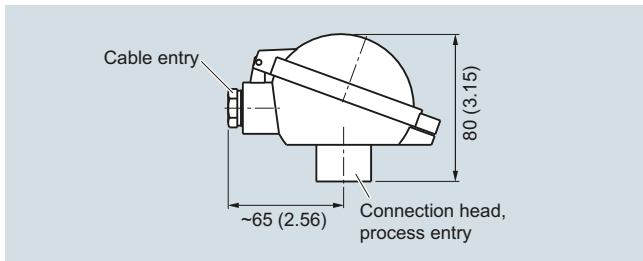
SITRANS TS500

For the installation of existing protective tubes

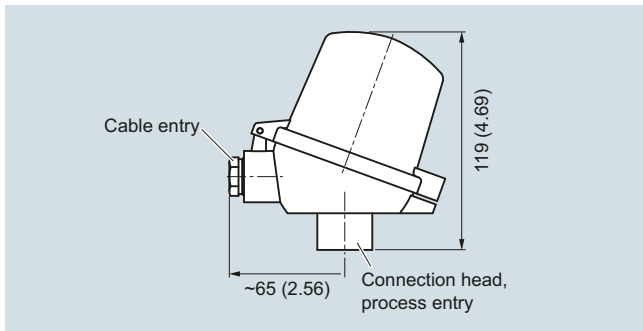
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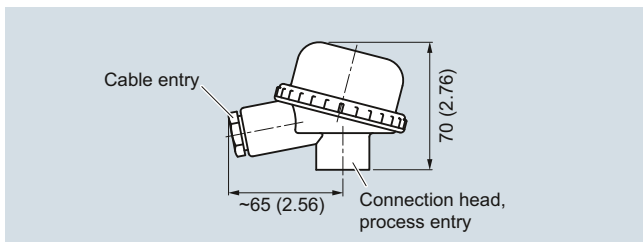
Connection head, aluminum, Type BA0, dimensions in mm (inch)



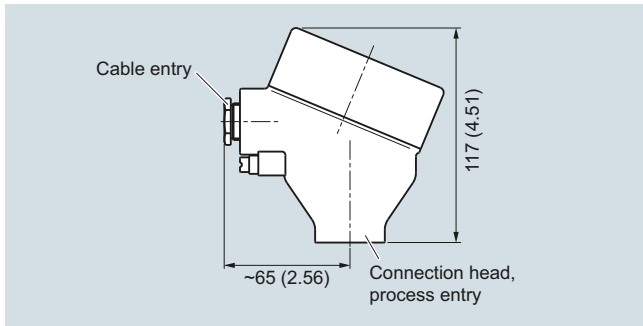
Connection head, aluminum, Type BB0, dimensions in mm (inch)



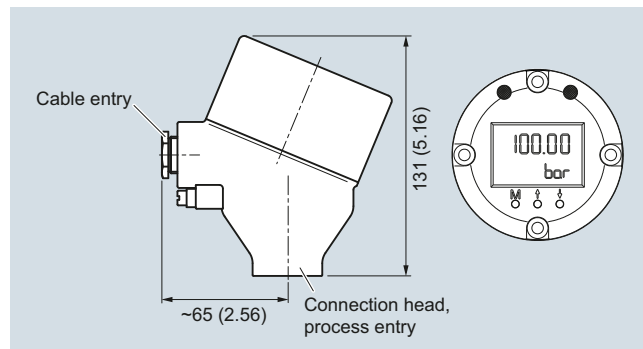
Connection head, aluminum, Type BC0, plastic, type BP0, dimensions in mm (inch)



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)

Selection and Ordering data	Article No.	Ord. Code
SITRANS TS500 Temperature sensors for installation in existing thermowells, suitable for thermowells as per 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, BPOhigh 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 Please note: The accuracy class range can be lower than the measuring range. For more information, see page 2/16 Pt100, Basis, -50 ... +400 °C (-58 ... +752 °F)		A
Pt100, vibration resistant, -50 ... +400 °C (-58 ... +752 °F)		B
Pt100, expanded range, -196 ... +600 °C (-321 ... +1 112 °F)		C
Thermocouple Type J, only class 2, -40 ... +750 °C (-40 ... +1 382 °F)		J
Thermocouple Type K, -40 ... +1 000 °C (-40 ... +1 832 °F)		K
Thermocouple Type N, -40 ... +1 000 °C (-40 ... +1 832 °F)		N
Sensor number/Accuracy Single, basic accuracy (Class 2/Class B)		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

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

Selection and Ordering data	Order code
Options Add "-Z" to Article No. and add options, separate extensions with "+".	
Built-in head transmitter Measuring range to be set must be specified with plain text data "Y01". SITRANS TH100, 4 ... 20 mA, Pt100 SITRANS TH100 Ex i (ATEX), 4 ... 20 mA, Pt100 SITRANS TH200, 4 ... 20 mA, Universal SITRANS TH200 Ex i (ATEX), 4 ... 20 mA, Universal SITRANS TH300, HART, Universal SITRANS TH300 Ex i (ATEX), HART, Universal SITRANS TH400 PA, Universal SITRANS TH400 PA Ex i, Universal SITRANS TH400 FF, Universal SITRANS TH400 FF Ex i, Universal	T10 T11 T20 T21 T30 T31 T40 T41 T45 T46
Explosion protection Intrinsic safety "ia", "ic" (please select Ex i version of the optional transmitter) Flameproof enclosure "d"; dust protection through housing "t" only with connection heads code AG0, AH0, AU0, AV0, without cable gland (please select non-Ex version of the optional transmitter) Non sparking "n"	E01 E03 E04
Certificates and approvals EN10204-3.1 Factory certificate: visual, measurement and functional inspection EN 10204-2.1: Declaration of compliance with the order	C34 C35
Designation, calibration Stainless steel TAG plate, enter lettering in plain text Plant calibration per 1 point, enter temperature in plain text	Y15 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 Enter measuring point (max. 8 characters) in plain text Transmitter, enter measuring point description (max. 16 characters) in plain text Transmitter, enter measuring point text (max. 32 characters) in plain text Transmitter, enter bus address in plain text Transmitter, fail-safe value 3.6 mA (instead of 22.8 mA) Transmitter with a SIL 2 conformity Transmitter with a SIL 2/3 conformity Transmitter test protocol (5 points)	Y01 Y17 Y23 Y24 Y25 U36 C20 C23 C11
Further options Connection form, flying leads (for the direct transmitter assembly, delivery without screws and springs) M12 plug (in combination with 1x Pt100 and/or transmitter, Non-Ex) Harting plug Han 7 D (Non Ex, without mating connector) Connection head with 1/2" NPT thread without cable gland, for AU0 and AH0 only IP66 with outer earth screw for heads AG0, AH0, AU0 and AV0 with inner earth screw for heads BC0, AG0, AH0, AU0 and AV0	G01 G12 G13 G20 A02 A03

You find ordering examples on page 2/37!