

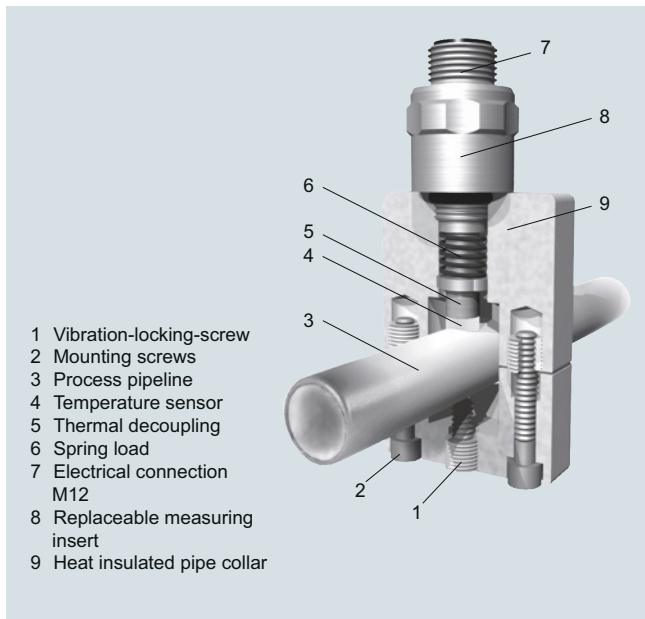
## Temperature Measurement

SITRANS TS300

For food, pharmaceuticals and biotechnology clamp-on design

### Dimensional drawings

2



Resistance thermometer with protection pipe in Clamp-on design

## Temperature Measurement SITRANS TS300

For food, pharmaceuticals and biotechnology clamp-on design

Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. code																																																																																																																											
<b>SITRANS TS300</b> <b>for food, pharmaceuticals and biotechnology</b> <b>Clamp-on design for the measuring of the pipe surface temperature</b> <a href="#">Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</a>	7MC8016-	0	<b>SITRANS TS300</b> <b>for food, pharmaceuticals and biotechnology</b> <b>Clamp-on design for the measuring of the pipe surface temperature</b>	7MC8016-	0																																																																																																																											
<b>Design</b> Acc. to IEC 60751, class A [-40 ... +150 °C (-40 ... +302 °F)]	1		38.1 (1.50) 41.0 (1.61) 42.4 (1.67) 44.5 (1.75) 48.3 (1.90)                      90 x 85 x 20 50.8 (2.00)                      (3.54 x 3.35 x 0.79) 53.0 (2.09) 54.0 (2.13) 57.0 (2.24)	A3 B3 C3 D3 E3 F3 G3 H3 J3 Z0	K1 Y																																																																																																																											
<b>Type of connection</b> Device plug M12 x 1 connection head form B, stainless steel 4 ... 20 mA compact transmitter SITRANS TH100slim (standard measuring range 0 ... 100 °C (32 ... 212 °F))	A B C		Always indicate external tube diameter for <sup>1)</sup> : • Installation with tube collar and deviating external tube diameter (S11-S19) • Securing with clamps (S21-S23) • Clamping band installation (S31-S35)																																																																																																																													
<b>Mounting with pipe collar</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Pipe outer-Ø mm (inch)</th> <th style="width: 30%;">Collar size mm (inch)</th> <th style="width: 40%;"></th> </tr> </thead> <tbody> <tr><td>4 (0.16)</td><td></td><td>A1</td></tr> <tr><td>6 (0.24)</td><td></td><td>B1</td></tr> <tr><td>6.35 (0.25)</td><td></td><td>C1</td></tr> <tr><td>8 (0.31)</td><td></td><td>D1</td></tr> <tr><td>9.35 (0.37)</td><td></td><td>E1</td></tr> <tr><td>10 (0.39)</td><td></td><td>F1</td></tr> <tr><td>10.2 (0.40)</td><td>50 x 35 x 20</td><td>G1</td></tr> <tr><td>10.3 (0.41)</td><td>(1.97 x 1.38 x 0.79)</td><td>H1</td></tr> <tr><td>12 (0.47)</td><td></td><td>J1</td></tr> <tr><td>12.7 (0.50)</td><td></td><td>K1</td></tr> <tr><td>13 (0.51)</td><td></td><td>L1</td></tr> <tr><td>13.5 (0.53)</td><td></td><td>M1</td></tr> <tr><td>13.7 (0.54)</td><td></td><td>N1</td></tr> <tr><td>14 (0.55)</td><td></td><td>P1</td></tr> <tr><td>15.88 (0.62)</td><td></td><td>Q1</td></tr> <tr><td>16 (0.63)</td><td></td><td>R1</td></tr> <tr><td>17.2 (0.68)</td><td></td><td>S1</td></tr> <tr><td>18.0 (0.71)</td><td></td><td>A2</td></tr> <tr><td>19.0 (0.74)</td><td></td><td>B2</td></tr> <tr><td>19.05 (0.75)</td><td></td><td>C2</td></tr> <tr><td>20.0 (0.79)</td><td></td><td>D2</td></tr> <tr><td>21.3 (0.84)</td><td></td><td>E2</td></tr> <tr><td>22.0 (0.87)</td><td></td><td>F2</td></tr> <tr><td>23.0 (0.90)</td><td></td><td>G2</td></tr> <tr><td>24.0 (0.94)</td><td></td><td>H2</td></tr> <tr><td>25.0 (0.98)</td><td></td><td>J2</td></tr> <tr><td>25.4 (1.00)</td><td></td><td>K2</td></tr> <tr><td>26.7 (1.05)</td><td></td><td>L2</td></tr> <tr><td>26.9 (1.06)</td><td></td><td>M2</td></tr> <tr><td>28.0 (1.10)</td><td>70 x 70 x 20</td><td>N2</td></tr> <tr><td>29.0 (1.14)</td><td>(2.76 x 2.76 x 0.79)</td><td>P2</td></tr> <tr><td>30.0 (1.18)</td><td></td><td>Q2</td></tr> <tr><td>31.8 (1.25)</td><td></td><td>R2</td></tr> <tr><td>32.0 (1.26)</td><td></td><td>S2</td></tr> <tr><td>33.4 (1.31)</td><td></td><td>T2</td></tr> <tr><td>33.7 (1.33)</td><td></td><td>U2</td></tr> <tr><td>34.0 (1.34)</td><td></td><td>V2</td></tr> <tr><td>35.0 (1.38)</td><td></td><td>W2</td></tr> <tr><td>36.0 (1.42)</td><td></td><td>X2</td></tr> <tr><td>38.0 (1.49)</td><td></td><td>Y2</td></tr> </tbody> </table>	Pipe outer-Ø mm (inch)	Collar size mm (inch)		4 (0.16)		A1	6 (0.24)		B1	6.35 (0.25)		C1	8 (0.31)		D1	9.35 (0.37)		E1	10 (0.39)		F1	10.2 (0.40)	50 x 35 x 20	G1	10.3 (0.41)	(1.97 x 1.38 x 0.79)	H1	12 (0.47)		J1	12.7 (0.50)		K1	13 (0.51)		L1	13.5 (0.53)		M1	13.7 (0.54)		N1	14 (0.55)		P1	15.88 (0.62)		Q1	16 (0.63)		R1	17.2 (0.68)		S1	18.0 (0.71)		A2	19.0 (0.74)		B2	19.05 (0.75)		C2	20.0 (0.79)		D2	21.3 (0.84)		E2	22.0 (0.87)		F2	23.0 (0.90)		G2	24.0 (0.94)		H2	25.0 (0.98)		J2	25.4 (1.00)		K2	26.7 (1.05)		L2	26.9 (1.06)		M2	28.0 (1.10)	70 x 70 x 20	N2	29.0 (1.14)	(2.76 x 2.76 x 0.79)	P2	30.0 (1.18)		Q2	31.8 (1.25)		R2	32.0 (1.26)		S2	33.4 (1.31)		T2	33.7 (1.33)		U2	34.0 (1.34)		V2	35.0 (1.38)		W2	36.0 (1.42)		X2	38.0 (1.49)		Y2			<sup>1)</sup> Special sizes for pipe outer diameters: In order to process "Z0" special sizes, the following two additional items of information are essential: - the required diameter specified in plain text under "K1Y" - Selection of the corresponding pipe collar, clamping band or clamping bracket size (Order codes "S11" to "S35")  Recommended for all versions: Heat-conductive-compound, silicone-free, syringe 3 g, Order code: L15 (see page 2/55)		
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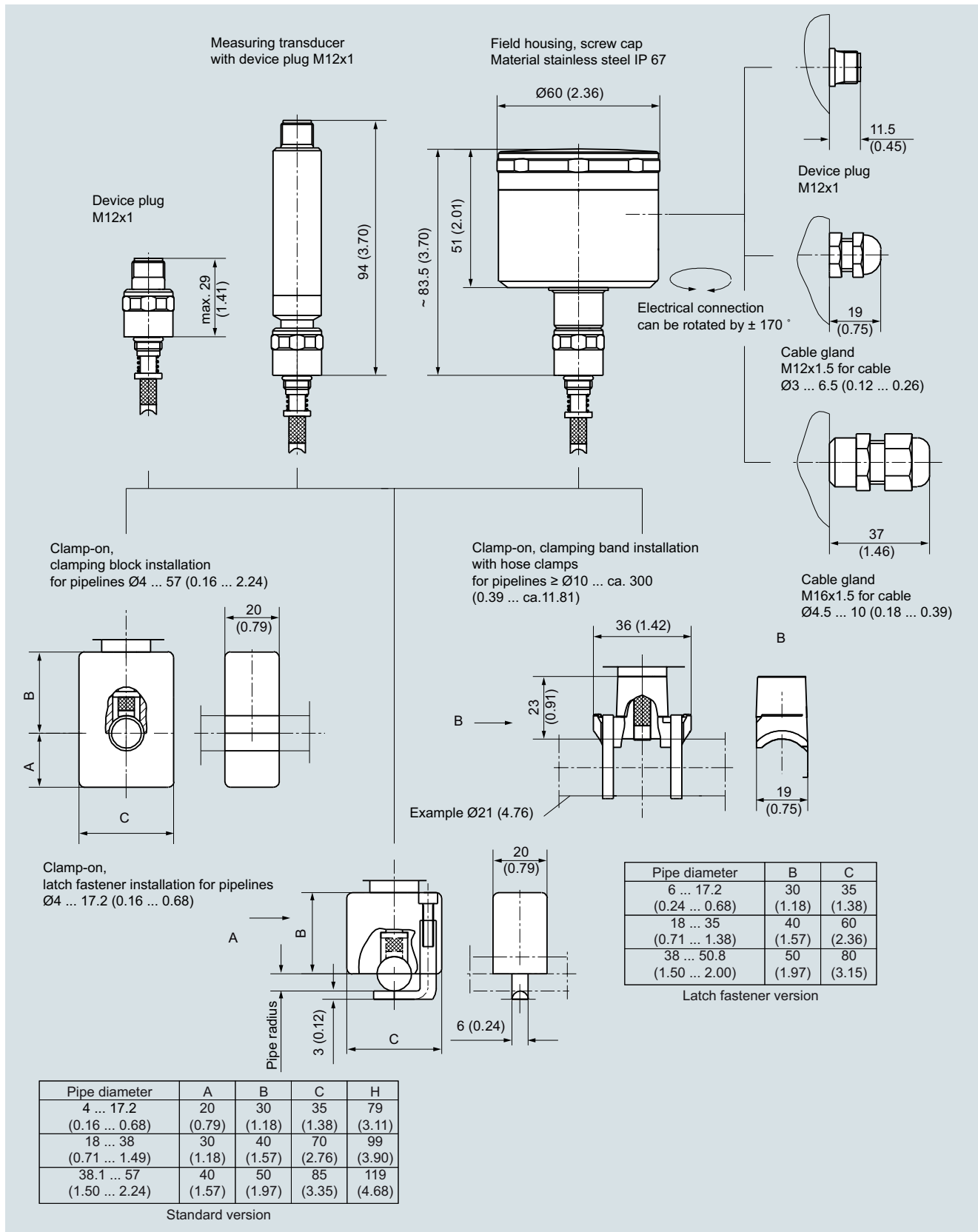
# Temperature Measurement

## SITRANS TS300

For food, pharmaceuticals and biotechnology clamp-on design

### Dimensional drawings

2



SITRANS TS300 Clamp-on design, device plug, field housing, cable gland, variants, dimensions in mm (inch)

For food, pharmaceuticals and biotechnology clamp-on design

Selection and Ordering data	Order code	Selection and Ordering data	Order code
<b>Further designs</b> Add <b>"-Z"</b> to Article No. and specify Order code.		<b>Further Options</b> Assignment marking, engraving instead of adhesive label (Serial number and pipe diameter on plug and plastic block)	<b>L11</b>
<b>Built in head transmitter</b> Measuring range to be set must be specified with plain text data "Y11".		2 mm drain hole	<b>L12</b>
SITRANS TH100, 4 ... 20 mA, Pt100	<b>T10</b>	Sensor 4-wire connection	<b>L14</b>
SITRANS TH100 Ex i (ATEX), 4 ... 20 mA, Pt100	<b>T11</b>	Heat-conductive-compound, silicone-free, syringe 3 g	<b>L15</b>
SITRANS TH200, 4 ... 20 mA, universal	<b>T20</b>	<b>Suffixes</b>	
SITRANS TH200 Ex i (ATEX), 4 ... 20 mA, universal	<b>T21</b>	Add <b>"-Z"</b> to Article No. and specify Order code and plain text.	
SITRANS TH300, HART, universal	<b>T30</b>	TAG plate made of stainless steel (specify TAG No. in plain text)	<b>Y15</b>
SITRANS TH300 Ex i (ATEX), HART, universal	<b>T31</b>	Test report at 0 %, 50 % and 100 % (specify the measuring range in plain text)	<b>Y33</b>
SITRANS TH400 PA, universal	<b>T40</b>	If optional head transmitters are integrated, please note that all calibration points are located in the set measuring range. If the points are located outside the standard measuring range, a Y01 addition is always required.	
SITRANS TH400 PA Ex i, universal	<b>T41</b>	Special version, specify in plain text	<b>Y98</b>
SITRANS TH400 FF, universal	<b>T45</b>	Process number for special version	<b>Y99</b>
SITRANS TH400 FF Ex i, universal	<b>T46</b>	<b>Accessories, see page 2/238.</b>	
<b>Transmitter options</b>		<u>Ordering examples:</u>	
Transmitter, enter complete setting in plain text (Y11:+/NNNN ... +/-NNNN C,F)	<b>Y11</b>	Deviating tube diameter 28.5 mm: 7MC8016-1AZ00-Z K1Y+S12 {K1Y: 28.5 mm}	
Enter measuring point (max. 8 characters) in plain text	<b>Y17</b>	Space-saving mounting, tube diameter 38 mm: 7MC8016-1AZ00-Z K1Y + S23 {K1Y: 38 mm}; as of diameter ≥ 18 mm, we recommend using the clamping band installation.	
Transmitter, enter measuring point description (max. 16 characters) in plain text	<b>Y23</b>	Clamping band installation, tube diameter 111 mm: 7MC8016-1AZ00-Z K1Y+S32 {K1Y: 111 mm}	
Transmitter, enter measuring point text (max. 32 characters) in plain text	<b>Y24</b>		
Transmitter, enter bus address in plain text	<b>Y25</b>		
Transmitter, fail-safe value 3.6 mA (instead of 22.8 mA)	<b>U36</b>		
Transmitter with a SIL 2 conformity	<b>C20</b>		
Transmitter with a SIL 2/3 conformity	<b>C23</b>		
Transmitter test protocol (5 points)	<b>C11</b>		
<b>Other cable gland (only for connection head)</b>			
Polyamide for cable diameter 4.5 ... 10 mm (0.18 ... 0.39 inch)	<b>K02</b>		
Stainless steel for cable diameter 3 ... 6,5 mm (0.12 ... 0.25 inch)	<b>K03</b>		
Device plug M12 x 1	<b>K11</b>		
<b>Deviating pipe;</b> <b>mm (inch)</b>	<b>Collar size;</b> <b>mm (inch)</b>		
4 ... 17.2 (0.16 ... 0.68)	50 x 35 (1.97 x 1.38)		<b>S11</b>
18 ... 38 (0.71 ... 1.49)	70 x 70 (2.76 x 2.76)		<b>S12</b>
38.1 ... 57 (1.5 ... 2.24)	90 x 85 (3.54 x 3.35)		<b>S13</b>
Larger nominal diameters on request			<b>S19</b>
<b>Space-saving mounting (latch fastening)</b>			
Outer pipe; mm (inch):			
4 ... 17.2 (0.16 ... 0.68)			<b>S21</b>
18 ... 35 (0.71 ... 1.38)			<b>S22</b>
(Clamping band version recommended, see below)			
38 ... 50.8 (1.45 ... 2.00)			<b>S23</b>
(Clamping band version recommended, see below)			
<b>Clamping band installation</b>			
Outer pipe; mm (inch):			
10 ... 57 (0.39 ... 2.24)			<b>S31</b>
58 ... 220 (2.28 ... 8.66)			<b>S32</b>
Without clamping band			<b>S35</b>