Temperature Measurement
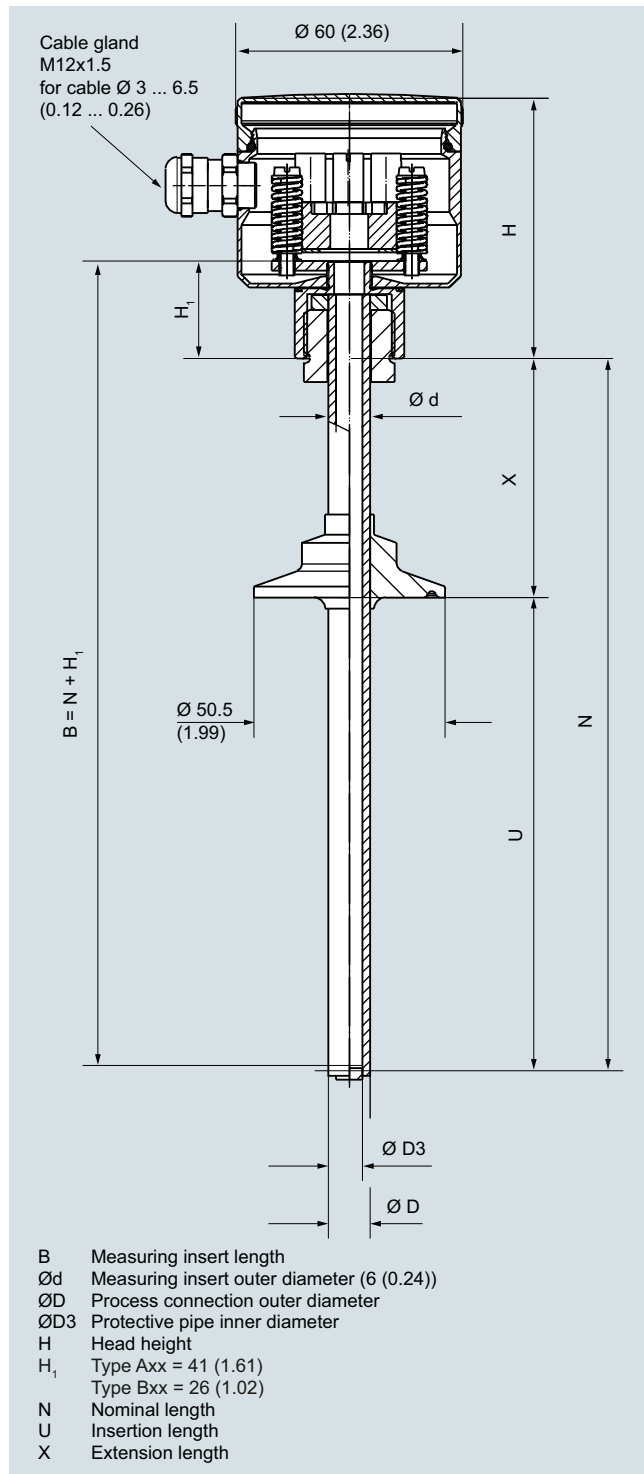SITRANS TS300

For food, pharmaceuticals and biotechnology modular design

■ **Dimensional drawings**

Ø 60 (2.36)

Cable gland
M12x1.5
for cable Ø 3 ... 6.5
(0.12 ... 0.26)

H

H₁

Ø d

X

B = N + H₁

Ø 50.5
(1.99)

N

U

Ø D3

Ø D

B   Measuring insert length
Ød   Measuring insert outer diameter (6 (0.24))
ØD   Process connection outer diameter
ØD3   Protective pipe inner 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 TS300 modular design, dimensions in mm (inch)

Selection and Ordering data

	Article No.	Order code

SITRANS TS300 ↗
for food, pharmaceuticals and biotechnol-ogy, modular design for installation in pipelines and vessels

7MC8005-

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↗ Click on the Article No. for the online con-figuration in the PIA Life Cycle Portal.

Head

	Article No.	Order code
Stainless steel head, BS0, screw cover (Standard version)	5	
Aluminum head, BA0, flange cover standard	1	
Plastic cover, BM0, srew cover	2	
Aluminum head, BB0, hinged cover low	3	
Aluminum head, BC0, hinged cover high	4	
Special version: (add Order code and plain text)	9	H1Y

Process connection, material 1.4404 or 1.4435/316L

Milk pipe union to DIN 11851 with slotted union nut and nominal diameter/pressure

	Article No.
DN 25/PN 40	A A
DN 32/PN 40	A B
DN 40/PN 40	A C
DN 50/PN 25	A D

Clamp connection:

ISO 2852	DIN 32676	Tri-Clamp	Outer diameter D	
–	–	½"/ ¾"	25.0 mm	C A
DN 25/ 33.7/38	DN 25/32/40	1", 1½"	50.5 mm	C B
DN 40/51	DN 50	2"	64.0 mm	C C
DN 63.5	–	2½"	77.5 mm	C D
DN 88.9	DN 80	–	106.0 mm	C E

Varivent connection (Tuchenhagen)

	Article No.
$\varnothing D_6 = 50$ mm (1.97 inch), for Varivent housing DN 25 and DN 1"	K U
$\varnothing D_6 = 68$ mm (2.68 inch), for Varivent housing DN 40 ... 125 and 1½" ... 6"	K V

NEUMO/BioControl

	Article No.
Size 25	B A
Size 50	B B
Size 65	B C

Ingold flange

	Article No.
DN 25 with hexagon union nut G 1¼", mounting length 40 mm (1.57"), diameter 24.8 mm (0.98") incl. O-ring	J A
Welding piece (sphere diameter 30 x 40 mm (1.2 x 1.6 inch) long)	L A
Special version: Type of screwed gland and nominal diame-ter (add Order code and plain text)	Z A	J 1 Y

Protective tube	**Measuring insert**	Article No.	Order code
$\varnothing$ D = 6 mm (0.24 inch)	$\varnothing$ 3/3.2 mm, (0.12/0.13 inch) miner. insul.	1	
$\varnothing$ D =9 mm (0.35 inch)	$\varnothing$ 6 mm (0.24 inch)	2	
$\varnothing$ D =9 mm (0.35 inch)	$\varnothing$ 6 mm (0.24 inch) miner. insul.	3	
$\varnothing$ D =9 mm (0.35 inch) tapered tip D_2 =5 $\varnothing$ x 20 mm (0.2 x 0.79 inch)	$\varnothing$ 3/3.2 mm, (0.12/0.12 inch) miner. insul.	4	
Special version: (add Order code and plain text)		9	L 1 Y

Selection and Ordering data

	Article No.	Order code

SITRANS TS300
for food, pharmaceuticals and biotechnol-ogy, modular design for installation in pipelines and vessels

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Neck tube length X

	Article No.	Order code
65 mm (2.56 inch) [M = 80 mm (3.15 inch)]	1	
130 mm (5.12 inch) [M = 145 mm (5.71 inch)]	2	
Special version: (add Order code and plain text)	9	N1Y

Insertion length
Enter customer specific length with Y44, see Order codes below

	Article No.	Order code
15 mm (0.59 inch)	B	
16 ... 35 mm (0.63 ...1.38 inch) Initial: 35 mm (1.38 inch)	C	
36 ... 50 mm (1.42 ... 1.97 inch) Initial: 50 mm (1.97 inch)	D	
51 ... 100 mm (2.01 ... 3.94 inch) Initial: 100 mm (3.94 inch)	E	
101 ... 160 mm (3.98 ... 6.30 inch) Initial: 160 mm (6.30 inch)	F	
161 ... 250 mm (6.34 ... 9.84 inch) Initial: 250 mm (9.84 inch)	G	
251 ... 400 mm (9.88 ... 15.75 inch) Initial: 400 mm (15.75 inch)	H	
1 ... 4 inch, Initial: 4 inch	J	
4 ... 6 inch, Initial: 6 inch	K	
6 ... 9 inch, Initial: 9 inch	L	
Special version: (add Order code and plain text)	Z	P1Y

Sensor

	Article No.	Order code
Thin-film technology: measuring range -50 ... +400 °C (-58 ... +752 °F)		
2 x Pt100, class A, three-wire	G	
1 x Pt100, class A, four-wire	H	
Special version: (add Order code and plain text)	Z	Q1Y

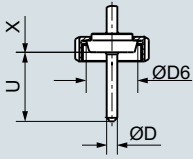| *Further designs*	Order code
Add "**-Z**" to Article No. and add Order code	
Process connection completely electropol-ished	P01
Hygiene version ($R_a < 0.8$ μm (3.1 x 10^{-5} inch))	H01
Certificates	
• Roughness depth measurement R_a certified by factory certificate to EN 10204-3.1	C18
• Material certificate to EN 10204-3.1	C12
TAG plate made of stainless steel specify TAG No. in plain text	Y15
Test report (at 0, 50 and 100%) specify measuring range in plain text 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.	Y33
Insertion length customer-specific Select range, enter desired length in plain text (No entry = standard length)	Y44

Temperature Measurement
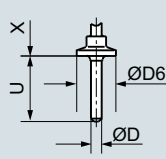## SITRANS TS300

For food, pharmaceuticals and biotechnology modular design
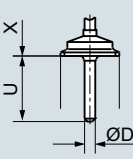
■ Dimensional drawings

Conical connection with union nut according acc. to DIN 11851
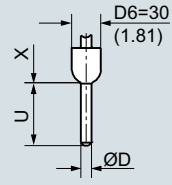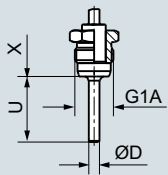
Tri-Clamp-connection

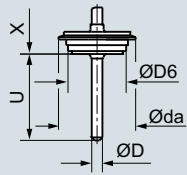Clamp- connection acc. to DIN 32676 or ISO 2852

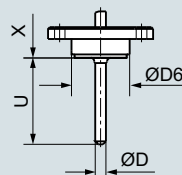Ball weld sleeve Ball 30 x 40 (1.18 x 1.58)

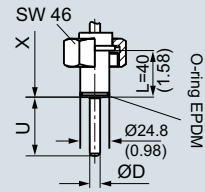G1A without dead space due to conical metal cone
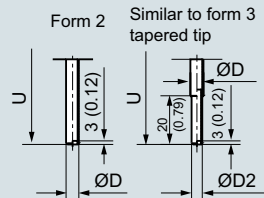
Varivent connection

NEUMO BioControl

Ingold connection DN 25 with union nut

Protective pipe design based on DIN 43772

Process connections, dimensions in mm (inch)

Selection and Ordering data	Order code
Further designs	
Add "**-Z**" to Article No. and specify Order code.	
Built-in head transmitter Measuring range to be set must be specified with plain text data "Y11".	
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**
Transmitter options	
Transmitter, enter complete setting in plain text (Y11:+/-NNNN ... +/-NNNN C,F)	**Y11**
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 device plug (in combination with 1x Pt100 and/or transmitter, Non-Ex)	**G12**
Option not found?	
Specify special version in plain text	**Y98**
Process number for the special version	**Y99**

Accessories, see page 2/238.