

YTED hygienic

Hygienic pressure switch

YTED-##.5.###.#

Overview

- ATEX version of TED hygienic
- -1 ... 0 bar up to 0 ... 25 bar
- Robust stainless steel housing for severe industrial environments
- Two threshold outputs (PNP transistors)



Technical data

Performance characteristics

Measuring range	-1 ... 25 bar
Min. measuring span	1 bar
Max. measuring span	25 bar
Pressure type	Absolute Relative (gauged)
Standard error of measurement (BFSL)	± 0.3 % FSR Including non-linearity, hysteresis and non-repeatability according BFSL
Max. measuring error	≤ 0.5 % FSR Including zero-point and span error, non-linearity (by terminal base line), hysteresis and non-repeatability (EN 61298-2)
Temperature coefficient	≤ 0.15 % FSR/10 K
Long term stability	≤ 0.2 % FSR/a
Rise time (10 ... 90 %)	≤ 20 ms
Threshold setting range	2 ... 98 % FSR

Process conditions

Process pressure	Refer to section "Process conditions"
Process temperature	-25 ... 100 °C

Process connection

Connection variants	Refer to section "Dimensional drawings"
Wetted parts material, membrane	AISI 316L (1.4404)
Wetted parts material, process connection	AISI 316L (1.4404)

Ambient conditions

Shock (EN 60068-2-27)	25 falls from 1 m onto concrete floor
Vibration (sinusoidal) (EN 60068-2-6)	1.5 mm p-p (10 ... 58 Hz), 20 g (58 Hz ... 2 kHz)
Degree of protection (EN 60529)	IP 67

Ambient conditions

Operating temperature range	-25 ... 85 °C
Storage temperature range	-40 ... 85 °C

Output signal

Current output	4 ... 20 mA, 2-wire
Output signal	2 switching points
Load resistance	$R_s \leq (V_s - 10 \text{ V})/0.02 \text{ A}$, with 2-wire

Housing

Overall size	Refer to section "Dimensional drawings"
Style	Compact transmitter
Material	AISI 304 (1.4301)

Electrical connection

Connector	M12-A, 5-pin
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Power supply

Voltage supply range	10 ... 28 V DC
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ATEX II 1G Ex ia IIC T5/T6

Maximum values for barrier selection, U_i	≤ 28 V
Maximum values for barrier selection, I_i	≤ 120 mA
Maximum values for barrier selection, P_i	≤ 800 mW
Internal capacitance, C_i	≤ 13.2 nF
Internal inductance, L_i	≤ 0 μH
Temperature class, T1 ... T5	-25 < Tamb < 70 °C
Temperature class, T1 ... T6	-25 < Tamb < 40 °C

Compliance and approvals

EMC	EN 61000-6-2 EN 61000-6-3 EN 61326-1
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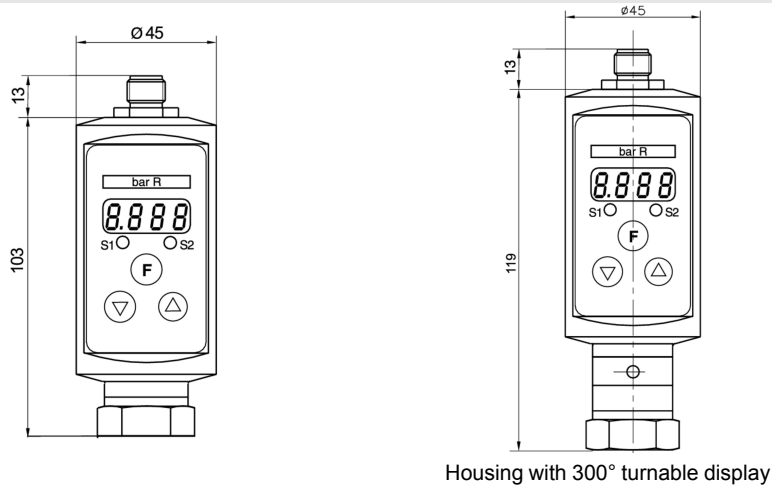
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Operating conditions

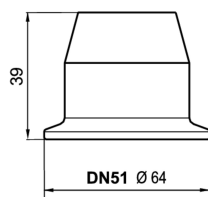
Measuring range (bar)		Proof pressure (bar)	Burst Pressure (bar)
-1 ... 0	-1 ... 0,6	3	6
	0 ... 1	3	7
	0 ... 1,6	3	7
	-1 ... 1,5	4	7
	0 ... 2,5	4	7
	-1 ... 3	8	12
	0 ... 4	8	12
	-1 ... 5	12	18
	0 ... 6	12	18
	-1 ... 9	20	30
	0 ... 10	20	30
	-1 ... 15	32	48
	0 ... 16	32	48
	-1 ... 24	50	75
	0 ... 25	50	75

Dimensional drawings

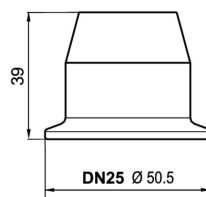
Housing



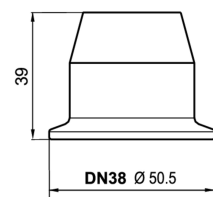
Process connection



ISO 2852 (Tri-Clamp), DN 51, Ø 64.0 (BCID: C05)

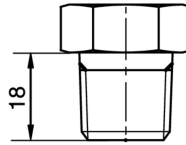
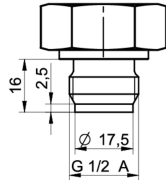


ISO 2852 (Tri-Clamp), DN 38, Ø 50.5 (BCID: C04)



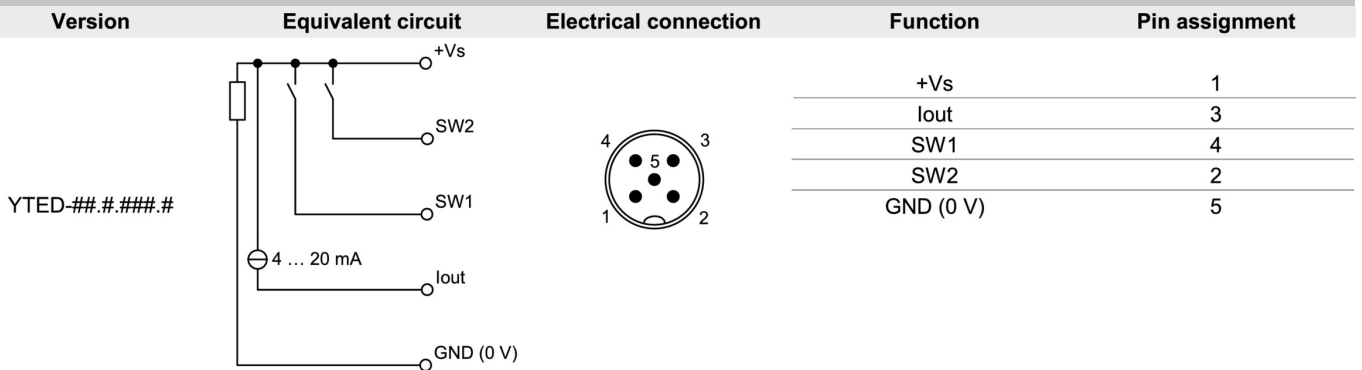
ISO 2852 (Tri-Clamp), DN 25, Ø 50.5 (BCID: C03)

Process connection



1/2-14 NPT (BCID: N02)

Electrical connection



Ordering information

Ordering key - Configuration possibilities see website

	YTED	- ##	.	5	.	###	.	#	####	2037
Product	YTED									
Process connection										
CLAMP ISO DN 51						11				
CLAMP ISO DN 25						15				
CLAMP ISO DN 38						18				
Sealing										
EPDM								5		
Measuring range										
0...1 bar (EN)									B15	
0...1,6 bar (EN)									B16	
0 ... 2.5 bar (EN)									B18	
0 ... 4 bar (EN)									B19	
-1...39 bar (EN)									B1L	
0 ... 6 bar (EN)									B20	
0 ... 10 bar (EN)									B22	
0 ... 16 bar (EN)									B24	
0...25 bar (EN)									B26	
-1...0 bar (EN)									B59	
-1...0,6 bar (EN)									B72	

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Ordering key - Configuration possibilities see website

YTED - ## . 5 . ### . # #### 2037

-1...1,5 bar (EN)	B74
-1...3 bar (EN)	B76
-1...5 bar (EN)	B77
-1...9 bar (EN)	B79
-1...15 bar (EN)	B81
-1...24 bar (EN)	B82
0...100 kPa (EN)	D15
0...160 kPa (EN)	D16
0...250 kPa (EN)	D18
0...400 kPa (EN)	D19
-100...3900 kPa (EN)	D1L
0...600 kPa (EN)	D20
0...1000 kPa (EN)	D22
0...1600 kPa (EN)	D24
0...2500 kPa (EN)	D26
-100...0 kPa (EN)	D59
-100...60 kPa (EN)	D72
-100...150 kPa (EN)	D74
-100...300 kPa (EN)	D76
-100...500 kPa (EN)	D77
-100...900 kPa (EN)	D79
-100...1500 kPa (EN)	D81
-100...2400 kPa (EN)	D82
0...1 kg/cm ² (EN)	F15
0...1,6 kg/cm ² (EN)	F16
0...2,5 kg/cm ² (EN)	F18
0...4 kg/cm ² (EN)	F19
-1...39 kg/cm ²	F1L
0...6 kg/cm ² (EN)	F20
0...10 kg/cm ² (EN)	F22
0...16 kg/cm ² (EN)	F24
0...25 kg/cm ² (EN)	F26
-1...0 kg/cm ² (EN)	F59
-1...0,6 kg/cm ² (EN)	F72
-1...1,5 kg/cm ² (EN)	F74
-1...3 kg/cm ² (EN)	F76
-1...5 kg/cm ² (EN)	F77
-1...9 kg/cm ² (EN)	F79
-1...15 kg/cm ² (EN)	F81
-1...24 kg/cm ² (EN)	F82
0...15 psi (ANSI)	H15
0...30 psi (ANSI)	H17
0...60 psi (ANSI)	H19
0...20 psi (ANSI)	H1C
-30Hg...600 psi (ANSI)	H1L
0...100 psi (ANSI)	H21
0...160 psi (ANSI)	H22
0...200 psi (ANSI)	H23
0...300 psi (ANSI)	H25
-30HG...60 psi (ANSI)	H2C

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Ordering key - Configuration possibilities see website

YTED - ## . 5 . ### . # #### 2037

-30HG...0 psi (ANSI)	H59
-30HG...15 psi (ANSI)	H73
-30HG...30 psi (ANSI)	H75
-30HG...100 psi (ANSI)	H78
-30HG...150 psi (ANSI)	H79
-30HG...220 psi (ANSI)	H81
-30HG...300 psi (ANSI)	H82

Kind of pressure

Relative (gauged)	R
Absolute	A

Electrical Connection

M12-A, 5-pin with shielded cable, length: 2 m	0604
M12-A, 5-pin with shielded cable, length: 5 m	0605
M12-A, 5-pin with shielded cable, length: 10 m	0606

Display orientation

300° directional display	2037
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