

Overview

- -1 ... 0 bar up to 0 ... 25 bar
- Robust stainless steel housing for severe industrial environments
- Two threshold outputs (PNP transistors or galvanic isolation)



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
Operating temperature range	-25 ... 85 °C
Storage temperature range	-40 ... 85 °C
Output signal	
Current output	4 ... 20 mA , 2-wire 4 ... 20 mA , 3-wire
Output signal	Modbus RS485 2 galvanic separated switching points 2 switching points
Load resistance	$R_s \leq (V_s - 10 V)/0.02 A$, with 2-wire $R_s \leq 400 \Omega$, with 3-wire > 5 k Ω , with voltage output

Housing

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

Electrical connection

Connector	M12-A, 5-pin M12-A, 8-pin, stainless steel
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Power supply

Voltage supply range	10 ... 32 V DC , 2-wire 18 ... 32 V DC , 3-wire
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Compliance and approvals

EMC	EN 61000-6-2 EN 61000-6-3 EN 61326-1
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TED hygienic

Hygienic pressure switch

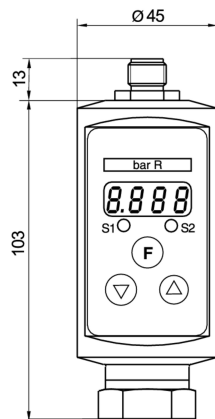
TED-#.##.3.###.#

Operating conditions

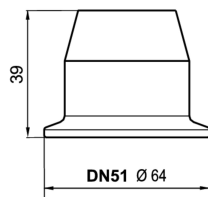
Measuring range (bar)		Proof pressure (bar)	Burst Pressure (bar)
-1 ... 0	-1 ... 0,6	3	6
	0 ... 1	3	7
	0 ... 1,6	3	7
	-1 ... 1,5	4	7
	0 ... 2,5	4	7
	-1 ... 3	8	12
	0 ... 4	8	12
	-1 ... 5	12	18
	0 ... 6	12	18
	-1 ... 9	20	30
	0 ... 10	20	30
	-1 ... 15	32	48
	0 ... 16	32	48
	-1 ... 24	50	75
	0 ... 25	50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

Dimensional drawings

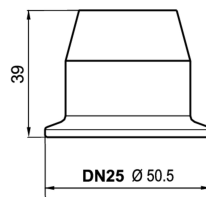
Housing



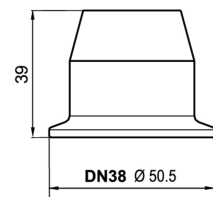
Process connection



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



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



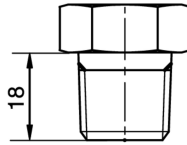
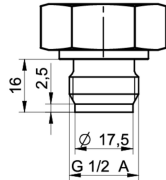
ISO 2852 (Tri-Clamp), DN 25, Ø 50.5 (BCID: C03)

TED hygienic

Hygienic pressure switch

TED-#.##.3.###.#

Process connection



1/2-14 NPT (BCID: N02)

Electrical connection

Version	Equivalent circuit	Electrical connection	Function	Pin assignment												
TED-5.##.#.###.#			<table border="1"> <tr><td>+Vs</td><td>1</td></tr> <tr><td>lout+</td><td>7</td></tr> <tr><td>lout-</td><td>2</td></tr> <tr><td>R1</td><td>3, 4</td></tr> <tr><td>R2</td><td>5, 6</td></tr> <tr><td>GND (0 V)</td><td>8</td></tr> </table>	+Vs	1	lout+	7	lout-	2	R1	3, 4	R2	5, 6	GND (0 V)	8	
+Vs	1															
lout+	7															
lout-	2															
R1	3, 4															
R2	5, 6															
GND (0 V)	8															
TED-6.##.#.###.#			<table border="1"> <tr><td>+Vs</td><td>1</td></tr> <tr><td>lout</td><td>3</td></tr> <tr><td>SW1</td><td>4</td></tr> <tr><td>SW2</td><td>2</td></tr> <tr><td>GND (0 V)</td><td>5</td></tr> </table>	+Vs	1	lout	3	SW1	4	SW2	2	GND (0 V)	5			
+Vs	1															
lout	3															
SW1	4															
SW2	2															
GND (0 V)	5															
TED-M.##.#.###.#			<table border="1"> <tr><td>+Vs</td><td>7</td></tr> <tr><td>R1</td><td>3, 4</td></tr> <tr><td>R2</td><td>5, 6</td></tr> <tr><td>A</td><td>1</td></tr> <tr><td>B</td><td>2</td></tr> <tr><td>-Vs</td><td>8</td></tr> </table>	+Vs	7	R1	3, 4	R2	5, 6	A	1	B	2	-Vs	8	
+Vs	7															
R1	3, 4															
R2	5, 6															
A	1															
B	2															
-Vs	8															

TED hygienic

Hygienic pressure switch

TED-#.##.3.###.#

Ordering information

Ordering key - Configuration possibilities see website

	TED	-	#	.	##	.	3	.	###	.	#	####	2037
Product	TED												
Type													
2 galvanic separated switching points, 4...20mA (3-wire)							5						
2 switching points, 4...20mA (2-wire)							6						
2 switching points, Modbus RS485							M						
Process connection													
CLAMP ISO DN 51							11						
CLAMP ISO DN 25							15						
CLAMP ISO DN 38							18						
G ½ with flush diaphragm, 1 NBR O-ring							3G						
½NPT with flush diaphragm							E5						
Sealing													
NBR											3		
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	
0...40 bar (EN)												B27	
0...60 bar (EN)												B29	
0...100 bar (EN)												B31	
0 ... 160 bar (EN)												B33	
0...250 bar (EN)												B35	
0...400 bar (EN)												B38	
-1...0 bar (EN)												B59	
-1...0,6 bar (EN)												B72	
-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	

TED hygienic

Hygienic pressure switch

TED-#.##.3.###.#

Ordering key - Configuration possibilities see website

	TED	-	#	.	##	.	3	.	###	.	#	####	2037
0...4000 kPa (EN)													D27
0...6000 kPa (EN)													D29
0...10000 kPa (EN)													D31
0...16000 kPa (EN)													D33
0...25000 kPa (EN)													D35
0...40000 kPa (EN)													D38
-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
0...40 kg/cm ² (EN)													F27
0...60 kg/cm ² (EN)													F29
0...100 kg/cm ² (EN)													F31
0...160 kg/cm ² (EN)													F33
0...250 kg/cm ² (EN)													F35
0...400 kg/cm ² (EN)													F38
-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
0...400 psi (ANSI)													H26
0...600 psi (ANSI)													H27
-30HG...60 psi (ANSI)													H2C
0...1000 psi (ANSI)													H30

TED hygienic

Hygienic pressure switch

TED-#.##.3.###.#

Ordering key - Configuration possibilities see website

TED - # . ## . 3 . ### . # #### 2037

0...1500 psi (ANSI)	H31	
0...3000 psi (ANSI)	H34	
0...6000 psi (ANSI)	H38	
-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
M12-A, 8-pin with shielded cable, length: 2 m	0607
M12-A, 8-pin with shielded cable, length: 5 m	0608
M12-A, 8-pin with shielded cable, length: 10 m	0609

Display orientation

300° directional display	2037
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