

EX PRESSURE TRANSMITTER

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature. The intrinsically safe EX pressure transmitter EXNA 8854 is certified to ATEX and IECEx for applications in Ex-Zones 0, 1, 2 (gas), 20, 21, 22 (dust) and mining. Due to the wide range of variants and pressure ranges from 0.1 to 1000 bar it can be configured for almost any application appropriately.



Applications

- Ex Zone 0, 1, 2 / Gas
- Ex Zone 20, 21, 22 / Dust
- Ex Underground Mining

Features

- Ex ATEX / IECEx
- Low pressure ranges (to 100 mbar)
- Versions with frontal flush diaphragm
- Media temperature to 150°C
- EMC protection, IEC 61000

Technical Data			
Measuring principle	Piezoresistive	Ambient temperature	T3: -40°C ... +125°C T4: -40°C ... +85°C T6: -40°C ... +50°C
Measuring range	0 ... 0.1 to 0 ... 1000 bar	Approval / conformity	Ex according to standards, IEC/EN 60079-0 / -11/-26, EN 50303
Output signal	4 ... 20 mA	Type of protection	Ex II 1G Ex ia IIC T3 ... T6 Ga II 1D Ex ia IIIC IP6x T145 ... T70°C IM1 Ex ia I
Media temperature	T3: -40°C ... +150°C T4: -40°C ... +100°C T6: -40°C ... +50°C		

02/2017

Data sheet H72334c

Subject to change

Ordering information/type code

				8854 . XX	XX	XX	XX	XX	XX	
Measuring range ¹⁾	Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]							
	0 ... 0.1	3	200	66	0 ... 16	48	200	79		
	0 ... 0.16	3	200	67	0 ... 25	75	200	80		
	0 ... 0.2	3	200	68	0 ... 40	120	850	81		
	0 ... 0.4	3	200	69	0 ... 60	180	850	82		
	0 ... 0.6	3	200	70	0 ... 100	300	850	83		
	0 ... 1	3	200	71	0 ... 160	480	850	85		
	0 ... 1.6	4.8	200	73	0 ... 250	750	850	74		
	0 ... 2.5	7.5	200	75	0 ... 400	850	1500	84		
	0 ... 4	12	200	76	0 ... 600	850	1500	86		
	0 ... 6	18	200	77	0 ... 1000	1500	1500	88		
	0 ... 10	30	200	78						
	Sensor	Type 02 relative (Accuracy NLH BSL ± 0.25 % FS)								P2
		Type 02 absolute (Accuracy NLH BSL ± 0.25 % FS)								A2
Type 01 relative (Accuracy NLH BSL ± 0.1 % FS)								P1		
Type 01 absolute (Accuracy NLH BSL ± 0.1 % FS)								A1		
Pressure connection	1/4" NPT male								30	
	1/2" NPT male								39	
	G 1/4" female								10	
	G 1/4" male								15	
	G 1/2" male								21	
	G1/2" male, frontal membrane								31	
	G1/2" male, flush membrane								32	
Electrical connection	Male electrical plug EN 175301-803-A, Mat. plastic								05	
	Male electrical plug Binder 723, 5-pole, Metal								14	
	Male electrical plug MIL-C 26482, 6-pole, Metal								02	
	Female electrical plug M12x1, 5-pole, Metal								35	
	PUR cable, length ... mm (IP67) ⁵⁾								22	
	FEP cable, length ... mm (IP67)								32	
Output	Output	Load resistance	I (supply)	U (supply)						
	4 ... 20mA	(U _{supply} -9V) / 20mA		9 ... 28 VDC	19					
Accessories	Special oil filling Aseol								94	
	Special oil filling Halocarbon ^{3) 4)}								95	
	Female electrical connector EN 175301-803-A (DIN 43650-A)								58	
	Female electrical connector Binder 723								37	
	Female electrical connector MIL-C 26482, 6-pole								32	
	Temperature class T3								T3	
	Temperature class T4								T4	
	Temperature class T6								T6	
	Pressure peak damping element ²⁾								DE	
	Zener barrier 28V/93mA; R ≈ 300Ω: Ordering code F90138									

¹⁾ Customized pressure ranges upon request

²⁾ Only with pressure connection 30, 39, 15, 21

³⁾ P2/A2 ≤ 120 bar

⁴⁾ P1/A1 ≤ 270 bar

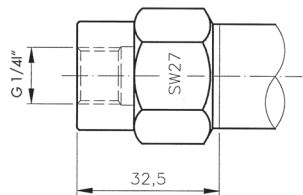
⁵⁾ ≤ +50°C

Specifications		
Electrical Data	Zener barrier	28V/93 mA/0.65 W
	Output / supply voltage	4 ... 20 mA: 9 ... 28 VDC
	Rise time	typ. 1 ms/10...90 % nominal pressure
Environmental conditions	Media temperature	T3: -40°C ... +150°C T4: -40°C ... +100°C T6: -40°C ... +50°C
	Ambient temperature	T3: -40°C ... +125°C T4: -40°C ... +85°C T6: -40°C ... +50°C
	Protection ¹⁾	Min. IP65
	Humidity	Max. 95 % relative
	Vibration	EN 60068-2-6: 10 g (4...2000 Hz)
	Shock	EN 60068-2-27: 100 g/ 6 ms
EMC Protection	Emission	EN 61000-4-3: 10 V/m
	Immunity	IEC 61000-4-2: 8 kV K./15 kV L.
Mechanical Data	Sensor	1.4435 (AISI316L) opt. titanium
	Housing / Pressure connection	1.4435 (AISI316L) opt. titanium
	Sealing	FKM 70 Sh; EPDM / Kalrez
	Male electrical plug	See ordering information
	Weight	~ 220 g
	Mounting torque	25 Nm

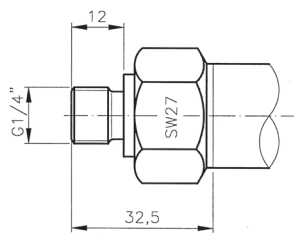
¹⁾ Provided female connector is mounted according to instructions

Accuracy						
		Sensor Type 01 (P1/A1) NLH ± 0.1 %				
Range	[bar]	0.1 ... 0.5	0.5 ... 2	2 ... 100	100 ... 600	> 600
NLH @ +25°C (BSL through 0)	[% FS typ.]	± 0.1	± 0.1	± 0.1	± 0.1	-
TEB @ 0...+70°C	[% FS typ.]	± 0.8	± 0.3	± 0.3	± 0.3	± 0.3
TEB @ -25...+100°C	[% FS typ.]	± 1.3	± 0.75	± 0.75	± 0.75	± 0.75
Long term stability 1 year		< 4 mbar	< 4 mbar	< 0.2 % FS	< 0.2 % FS	< 0.2 % FS
Repeatability	[% FS typ.]	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05
		Sensor Type 02 (P2/A2) NLH ± 0.25 %				
Range	[bar]	0.1 ... 0.5	0.5 ... 2	2 ... 100	100 ... 600	> 600
NLH @ +25°C (BSL through 0)	[% FS typ.]	± 0.25	± 0.25	± 0.25	± 0.25	± 0.25
TEB @ 0...+70°C	[% FS typ.]	± 1.0	± 0.7	± 0.7	± 0.7	± 0.7
TEB @ -25...+100°C	[% FS typ.]	± 2.0	± 1.0	± 1.0	± 1.0	± 1.0
Long term stability 1 year		< 4 mbar	< 4 mbar	< 0.2 % FS	< 0.2 % FS	< 0.2 % FS
Repeatability	[% FS typ.]	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05

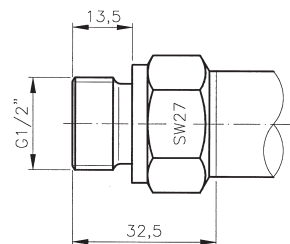
Dimensions



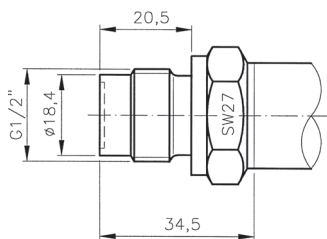
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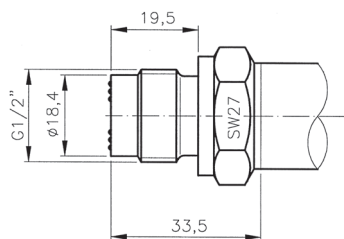
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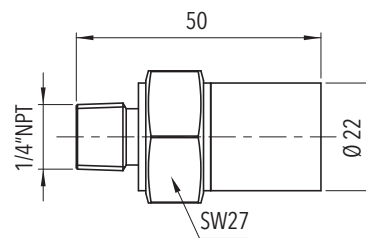
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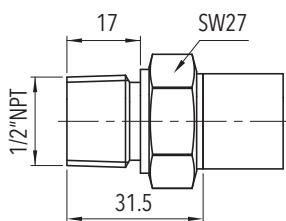
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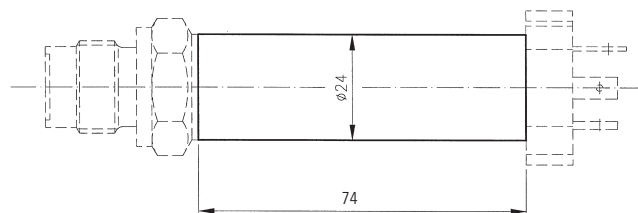
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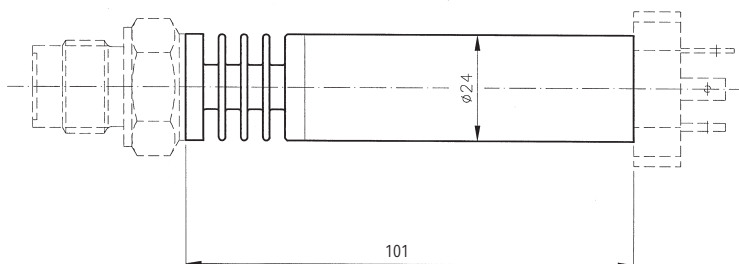


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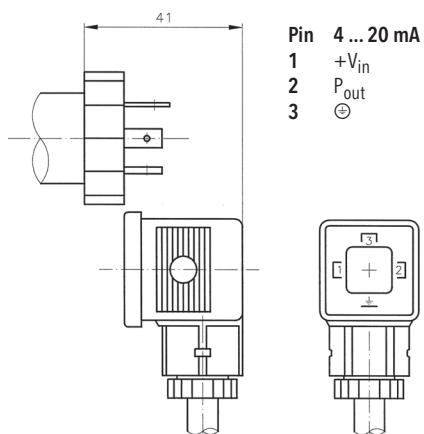
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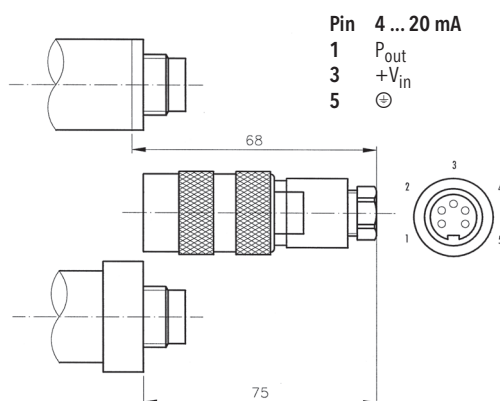


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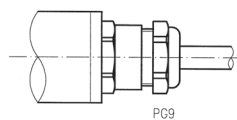
Dimensions



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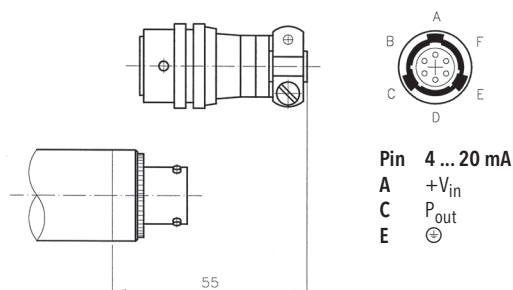


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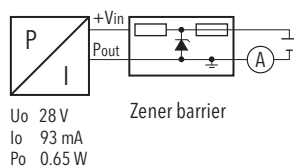
Color 4 ... 20 mA
 white +V_{in}
 yellow P_{out}
 grey ⊖

8854.XX.XXXX.32.XX.XX



8854.XX.XXXX.02.XX.32

Electrical Connection



Additional information

Documents

Data sheet	www.trafag.com/H72334
Instructions	www.trafag.com/
Flyer	www.trafag.com/H70679