EX PRESSURE TRANSMITTER

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature.

Applications

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

Features

- Ex SEV 11 ATEX 0145 X
- Pressure ranges from 100 mbar
- Versions with frontal or with flush diaphragm
- Media temperature to 150°C
- Option: Lightning protection (IEC 61000-4-5), 10kA (8/20 µs)

03/2021
Data sheet H722271
Subject to change

Technical Data			
Measuring principle	Piezoresistive	Ambient temperature	T3/T4: -25°C ... +85°C T6: -25°C ... +55°C
Measuring range	0 ... 0.1 to 0 ... 1000 bar	Approval / conformity	DNV-GL
Output signal	4 ... 20 mA	Type of protection	Ⓔx II 1G Ex ia IIC T3 ... T6 Ga II 1D Ex ia IIIC T125°C Da I M1 Ex ia I Ma
Media temperature	T3: -25°C ... +150°C T4: -25°C ... +100°C T6: -25°C ... +55°C		

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trafag sensors controls

Ordering information/type code

		XXXX	XX	XX	XX	XX	XX	XX
Custom build code	Relative pressure	**8852**						
	Absolute pressure	**8853**						

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		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	850	**84**
0 ... 4	12	200	**76**	0 ... 600	850	850	**86**
0 ... 6	18	200	**77**	0 ... 1000	1500	1500	**88**
0 ... 10	30	200	**78**				

Sensor	Type 05 (Accuracy NLH: ± 0.5 % FS) [2]		**P5**				
	Type 02 (Accuracy NLH: ± 0.25 % FS) [2]		**P2**				
	Type 01 (Accuracy NLH: ± 0.1 % FS) [2]		**P1**				
Pressure connection	G1/4" female			**10**			
	G1/4" male			**15**			
	G1/4" male (Manometer)			**20**			
	G1/2" male			**21**			
	G1/2" male, frontal membrane			**31**			
	G1/2" male, flush membrane			**32**			
	G1/2" male (Manometer)			**11**			
Electrical connection	Male electrical connector: MIL-C 26482 (Mat.: Al), IP 40				**02**		
	Male electrical connector: DIN43650-A, Mat.: PA, IP65				**04**		
	Male electrical connector: Binder 723, Mat.: Zn, IP67				**14**		
	Male electrical connector M12x1, 4-pole, metal				**32**		
	Cable PUR: length ... (mm) IP67				**22**		
	Cable FEP: length ... mm (IP67)				**39**		
Output signal	4 ... 20 mA					**19**	
	4 ... 20 mA with lightning protection (Surge)					**09**	
Accessories	Female electrical plug EN 175301-803-A (DIN43650-A)						**58**
	Female electrical plug: Binder 723						**37**
	Female electrical plug: MIL-C 26482, 6-pole, Metal, Zone 0,1,2 (Ga)						**32**
	Special oil filling: Anderol						**94**
	Temperature class T3						**T3**
	Temperature class T4						**T4**
	Temperaturklasse T6						**T6**
	Titanium (Material pressure connection and housing)						**Ti**

[1] Customized pressure ranges upon request
[2] Accuracy NLH see table

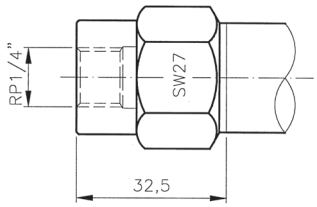
Identical construction with other specifications:
Data sheet No. H72230

Specifications		
Electrical Data	Output / supply voltage	4 ... 20 mA / 10 ... 30 VDC
	Load	$R_L \leq$ (US-9V) /20 mA
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
Environmental conditions	Media temperature	T3: -25°C ... +150°C T4: -25°C ... +100°C T6: -25°C ... +55°C
	Ambient temperature	T3/T4: -25°C ... +85°C T6: -25°C ... +55°C
	Protection [1)]	Min. IP65
	Humidity	Max. 95 % relative
	Vibration	6 g (25...2000 Hz)
	Shock	50 g / 1 ms
EMC Protection	Emission	EN/IEC 61000-6-3
	Immunity	EN/IEC 61000-6-2
Mechanical Data	Sensor (wetted parts)	1.4435 (AISI316L)
	Pressure connection (wetted parts)	1.4435 (AISI316L)
	Housing	1.4435 (AISI316L)
	Sealing	FKM 70 Sh (Viton)
	Male electrical connector	See ordering information
	Weight	~ 220 g
	Mounting torque	25 Nm

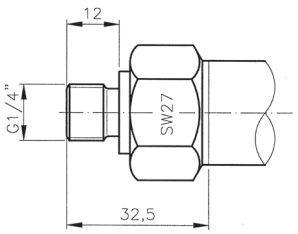
[1)] Provided female electrical plug is mounted according to instructions

Accuracy						
Range	**[bar]**	**0.1 ... 0.5**	**0.5 ... 2**	**2 ... 25**	**25 ... 600**	**> 600**
Accuracy NLH (BSL through 0) **P5**	[± % FS]	0.5	0.5	0.5	0.5	0.5
Accuracy NLH (BSL through 0) **P2**	[± % FS]	0.25	0.25	0.25	0.25	0.25
Accuracy NLH (BSL through 0) **P1**	[± % FS]	-	0.1	0.1	0.1	-
Temperature coefficient zero point 0 ... +70°C	[± % FS/K]	0.06	0.03	0.015	0.015	0.015
Temperature coefficient zero point Option -25 ... +85°C	[± % FS/K]	0.08	0.04	0.02	0.02	0.02
Temperature coefficient span 0 ... +70°C	[± % FS/K]	0.015	0.015	0.015	0.015	0.015
Temperature coefficient span Option -25 ... +85°C	[± % FS/K]	0.02	0.02	0.02	0.02	0.02
Long-term drift	[1 year]	< 4 mbar	< 4 mbar	< 0.2 % FS	< 0.2 % FS	< 0.2 % FS
Repeatability	[± % FS]	0.05	0.05	0.05	0.05	0.05

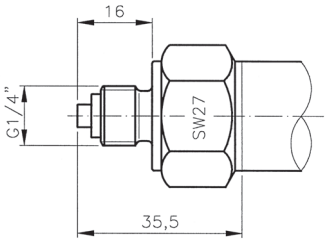
Dimensions



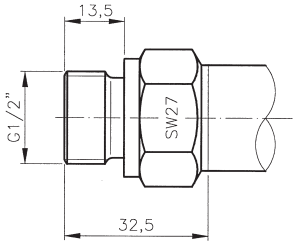
885X.XX.XX**10**.XX.XX.XX



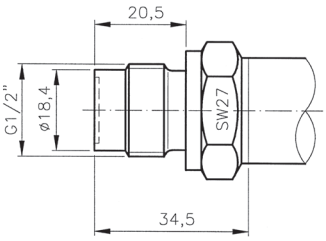
885X.XX.XX**15**.XX.XX.XX



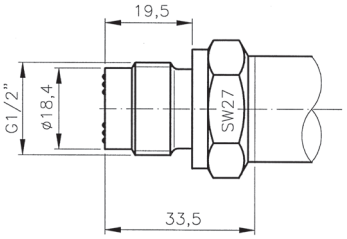
885X.XX.XX**20**.XX.XX.XX



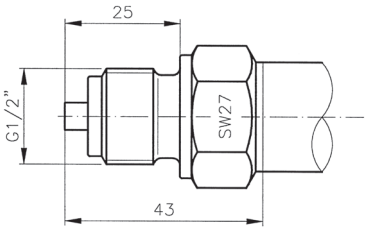
885X.XX.XX**21**.XX.XX.XX



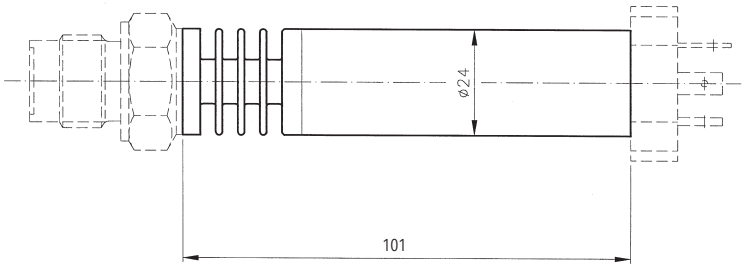
885X.XX.XX**31**.XX.XX.XX



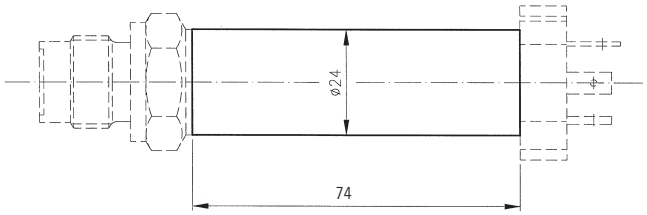
885X.XX.XX**32**.XX.XX.XX



885X.XX.XX**11**.XX.XX.XX



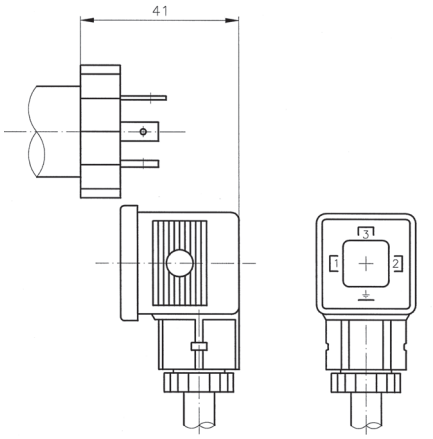
885X.XX.XXXX.XX.XX.**T3**



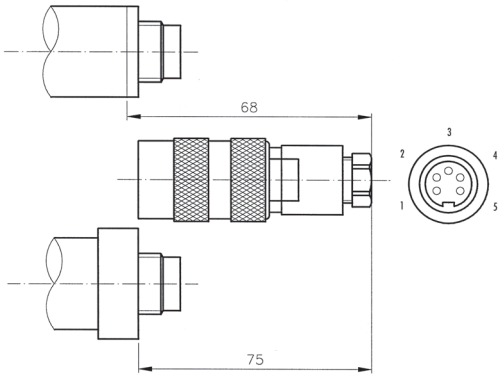
885X.XX.XXXX.XX.XX.**T4**

885X.XX.XXXX.XX.XX.**T6**

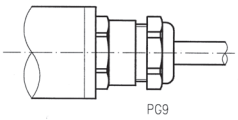
Dimensions



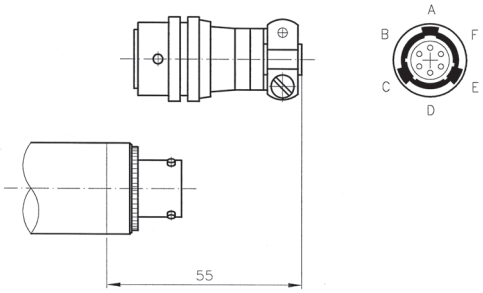
885X.XX.XXXX.**04**.XX.**58**



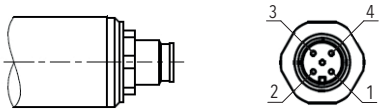
885X.XX.XXXX.**14**.XX.**37**



885X.XX.XXXX.**22/39**.XX.XX

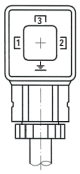
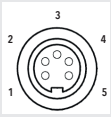
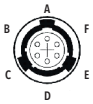
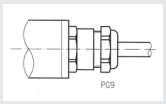
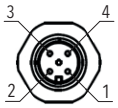


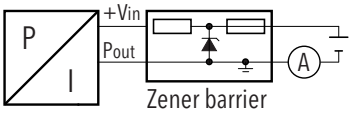
885X.XX.XXXX.**02**.XX.**32**



885X.XX.XXXX.**32**.XX.XX

Electrical connection

Protection IP65					
Version	Industrial standard EN175301-803A	Binder 723	MIL-C 26482	Cable	M12x1 4-pole
Electrical connection	**04** 	**14** 	**02** 	**22/39** 	**32** 
4 ... 20 mA					
+ V_{in}	1	3	A	white	4
P_{out}	2	1	C	yellow	3
⏚ EP	3	5	F	grey	1
For Ex zones	1, 2 20, 21, 22	0, 1, 2 20, 21, 22	0, 1, 2 20, 21, 22	0*, 1, 2 20, 21, 22	1, 2 20, 21, 22



Marking

For Ex zones	Marking
0, 1, 2, 20, 21, 22 M1, M2	⟨Ex⟩ II 1G Ex ia IIC T3 ... T6 Ga II 1D Ex ia IIIC T125°C Da I M1 Ex ia I Ma
1, 2 20, 21, 22 M2	⟨Ex⟩ II 2G Ex ia IIB T3 ... T6 Gb II 1D Ex ia IIIC T125°C Da I M2 Ex ia I Mb

Additional information

Documents	Data sheet	www.trafag.com/H72227
	Instructions	www.trafag.com/H73227
	Flyer	www.trafag.com/H70685