Pressure switches

Pressure switches

Trafag's electromechanical pressure switches provide high vibration resistance and switch point precision in combination with an extremely robust and durable design. This results in switches that can be operated for decades without requiring maintenance, even under harsh conditions. Various designs with bellows, membrane and piston sensors cover a wide variety of pressure ranges, media and load profiles for many different applications.

Bellows sensors

- High switching point precision and repeatability
- Stainless steel, bronze and brass designs
- Optionally welded/soldered design for absolute impermeability
- Measure liquid, vaporous and gaseous media

Piston sensors

- Suitable for high pressure ranges
- Not sensitive to pressure surges
- Suitable for applications with many load cycles
- Ideal for hydraulic systems

Membrane sensors

- Resistant to high overpressures and not sensitive to pressure surges
- Suitable for applications with many load cycles
- Measure liquid, vaporous and gaseous media

Overview Pressure switches

	PST4B 9B4	PST4K 9K4	PST4M 9M4	PSTD 9D0	P/PS 900/904/912	PV/PVF 903/907/915/940/941/942	
	page 82	page 84	page 86	page 88	page 89	page 90	
							
Measuring principle	Bellow	Piston	Membrane	Bellow	Bellow	Bellow	
Measuring range	-0.6 ... 3.4 to 4 ... 40 bar -8 ... 45 to 60 ... 500 psi	1 ... 10 to 40 ... 400 bar 14 ... 150 to 580 ... 5800 psi	1 ... 10 to 10 ... 100 bar 14 ... 150 to 150 ... 1500 psi	-1 ... 6 and -1 ... 8 bar	-0.9 ... 1.5 to 10 ... 100 bar 5 ... 50 to 125 ... 1500 psi	-0.9 ... 1.5 to 4 ... 40 bar 5 ... 50 to 50 ... 500 psi	
Output signal	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	
Pressure connections	G1/8" f, G1/4" f, M10x1.0 f	G1/8" f, G1/4" f, M10x1.0 f	G1/8" f, G1/4" f, M10x1.0 f	G1/4" f	G1/4" f, G1/2" m, 1/4"NPT f	G1/4" f, G1/2" m, 1/4" NPT f	
Electrical connections	EN175301-803-A (DIN43650-A)	EN175301-803-A (DIN43650-A)	EN175301-803-A (DIN43650-A)	EN175301-803-A (DIN43650-A)	Screw terminal	Screw terminal	
Switching differential	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Adjustable	
Media temperature	–25°C ... +125°C –40°C ... +125°C	–25°C ... +125°C	0°C ... +80°C	-25°C ... +120°C	-40°C ... +150°C	-40°C ... +150°C	
Ambient temperature	–25°C ... +125°C –40°C ... +125°C	-25°C ... +85°C	0°C ... +80°C	-25°C ... +85°C	-25°C ... +70°C	-25°C ... +70°C	
Protection	IP65	IP65	IP65	IP65	IP65	IP65	
Housing	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	Aluminium EN AW-6082 AlMgSi1 anodized	Brass CuZn39Pb3	AlSi10Mg/ Epoxy coated	AlSi10Mg/ Epoxy coated	
Sealing	HNBR 75 Sh	PTFE	FKM	-	NBR	NBR	
Applications	Shipbuilding Engine manufacturing Railways Machine tools	Shipbuilding Engine manufacturing Railways Machine tools Hydraulics	Shipbuilding Engine manufacturing Railways Machine tools Hydraulics	Shipbuilding Engine manufacturing Machine tools Hydraulics	Shipbuilding Engine manufacturing Railways Machine tools Hydraulics	Shipbuilding Engine manufacturing Railways Machine tools Hydraulics	
Approval / conformity	ABS, BV, CCS, DNV, GL, KRS, LRS,NKK, RINA, RMRS, EN60730-1/ EN60730-2-6: Typ 2.B.H	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA, EN60730-1/ EN60730-2-6: Typ 2.B.H	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA, EN60730-1/ EN60730-2-6: Typ 2.B.H	GL EN60730-1/ EN60730-2-6: Typ 2.B.H	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA EN60730-1/ EN60730-2-6: Typ 2.B.H	ABS, BV, DNV, GL, KRS, LRS, RINA EN60730-1/ EN60730-2-6: Typ 2.B.H	
Type of protection							
Data sheet	H72367	H72369	H72368	H72273	H72252	H72257	
Instructions	H73367	H73367	H73367	H73273	H71261	H71261	

	PK 944/947	PD 920/924/932	901/902/905/906	987/988	EXP 900/904/912	EXPK 944/947/953	EXPD 920/924/932
	page 91	page 92	page 93	page 94	page 96	page 98	page 99
							
	Piston	Bellow	Membrane	Bellow	Bellow	Piston	Bellow
	1 ... 10 to 60 ... 600 bar	-1 ... 6 to -1 ... 18 bar	30 ... 600 and 50 ... 1000 mbar	-0.3 ... 1.3 to 1 ... 10 bar	-0.9 ... 1.5 to 4 ... 40 bar	1 ... 10 to 60 ... 600 bar	-1 ... 6 to -1 ... 18 bar
	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 or 2 floating change-over contacts (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)
	G1/4" f, G1/2" m	G1/4" f, G1/8" f, G1/2" m	G1/4" f, G1/2" m	G1/4" m	G1/4" f, G1/2" m	G1/4" f, G1/2" m	G1/4" f, G1/8" f, G1/2" m
	Screw terminal	Screw terminal	Screw terminal	Blade connector	Screw terminal	Screw terminal	Screw terminal
	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Not adjustable
	NBR: -30°C ... +100°C FKM: -15°C ... +150°C	-40°C ... +150°C	-40°C ... +150°C	-25°C ... +80°C	-40°C ... +150°C	NBR: -30°C ... +100°C FKM: -15°C ... +150°C	-50°C ... +150°C
	-20°C ... +70°C	-25°C ... +70°C	-25°C ... +70°C	-25°C ... +70°C	-50°C ... +65°C	-50°C ... +65°C	-50°C ... +65°C
	IP65	IP65	IP65	IP40 (Microswitch IP67)	IP66 Accessory 06: IP66	IP66 Accessory 06: IP66	IP66
	AlSi10Mg/ Epoxy coated	AlSi10Mg/ Epoxy coated	AlSi10Mg/ Epoxy coated	PBTP, Crastin	AlSi10Mg/ Epoxy coated Accessory 06: 1.4301 (AISI 304)	AlSi10Mg/ Epoxy coated Accessory 06: 1.4301 (AISI 304)	AlSi10Mg/ Epoxy coated
	NBR/FKM	NBR	NBR	-	NBR	NBR / FKM	NBR
	Shipbuilding Engine manufacturing Railways Machine tools Hydraulics	Shipbuilding Engine manufacturing Railways Machine tools Hydraulics	Machine tools HVAC	Machine tools Medium voltage switchgear	Ex II 2 G / D	Ex II 2 G / D	Ex II 2 G / D
	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA EN60730-1/ EN60730-2-6: Typ 2.B.H	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA EN60730-1/ EN60730-2-6: Typ 2.B.H	EN60730-1/ EN60730-2-6: Typ 2.B.H	EN60730-1/ EN60730-2-6: Typ 2.B.H	SEV 15 ATEX 0157 X	SEV 15 ATEX 0157 X	SEV 15 ATEX 0157 X
					Areas with gaz explosion hazards: II 2 G Ex d e IIC T6 Gb Areas with dust explosion hazards: II 2 D Ex tb IIIC T80°C Db	Areas with gas explosion hazards: II 2 G Ex d e IIC T6 Gb; Areas with dust explosion hazards: II 2 D Ex tb IIIC T80°C Db	Areas with gas explosion hazards: II 2 G Ex d e IIC T6 Gb; Areas with dust explosion hazards: II 2 D Ex tb IIIC T80°C Db
	H72259	H72253	H72269	H72272	H72263	H72270	H72256
	H71261	H73256		H73272	H73171	H73171	H73171

PST4B 9B4

Picostat Pressure Switch

Features

- Improved vibration resistance
- Compact design
- Rugged housing
- Protection IP65
- Any mounting position possible

Technical Data			
Measuring principle	Bellow	Repeatability	± 0.5 % FS typ.
Measuring range	-0.6 ... 3.4 to 4 ... 40 bar -8 ... 45 to 60 ... 500 psi	Media temperature	Standard: –25°C ... +125°C with sensor 789/790/791: –40°C ... +125°C
Output signal	1 Floating change-over contact (SPDT)	Ambient temperature	Standard: –25°C ... +125°C with sensor 789/790/791: –40°C ... +125°C
Switching differential	Not adjustable	Approval / conformity	ABS, BV, CCS, DNV, GL, KRS, LRS,NKK, RINA, RMRS, EN60730-1/ EN60730-2-6: Typ 2.B.H

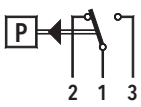
Standardprodukte (extra kurze Lieferfrist)

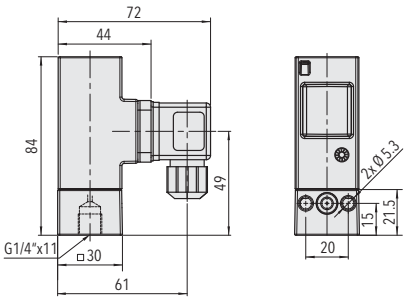
Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Switching differential [bar]
PST4B3.44	9B4 4274 769 04 0000 0000 15 46 V3	-0.6 ... 3.4	12	0.2 ± 0.1 (fixed)
PST4B64	9B4 4277 770 04 0000 0000 15 46 V3	0 ... 6	12	0.2 ± 0.1 (fixed)
PST4B164	9B4 4279 771 04 0000 0000 15 46 V3	1 ... 16	24	0.4 ± 0.2 (fixed)
PST4B254	9B4 4280 772 04 0000 0000 15 46 V3	2 ... 25	40	1.0 ± 0.6 (fixed)
*PST4B404	9B4 4281 772 04 0000 0000 15 46 V3	4 ... 40	50	1.2 ± 0.8 (fixed)
PST4B3.4F4	9B4 4274 769 04 0000 0000 11 15 46 74 V3	-0.6 ... 3.4	12	0.2 ± 0.1 (fixed)
PST4B6F4	9B4 4277 770 04 0000 0000 11 15 46 74 V3	0 ... 6	12	0.2 ± 0.1 (fixed)
PST4B16F4	9B4 4279 771 04 0000 0000 11 15 46 74 V3	1 ... 16	24	0.4 ± 0.2 (fixed)
*PST4B25F4	9B4 4280 772 04 0000 0000 11 15 46 74 V3	2 ... 25	40	1.0 ± 0.6 (fixed)
*PST4B40F4	9B4 4281 772 04 0000 0000 11 15 46 74 V3	4 ... 40	50	1.2 ± 0.8 (fixed)
PST4B6S4	9B4 4277 753 04 0000 0000 15 46 V3	0 ... 6	12	0.2 ± 0.1 (fixed)
PST4B16S4	9B4 4279 754 04 0000 0000 15 46 V3	1 ... 16	24	0.4 ± 0.2 (fixed)

PST4B...4 / PST4B...F4:
Sensor: Bronze bellow CuSn6)
Housing / pressure connection:
Aluminium EN AW-6026 AlMgSiPb0.4 anodized

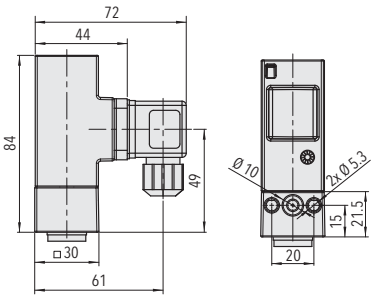
PST4B...S4:
Sensor: Bellows stainless steel (1.4404/AISI316L)
Housing / pressure connection: Stainless steel

AC 250 V, 6 (1) A
DC 24 V, 3 (2) A
DC 220 V, 0.25 (0.1) A





PST4B ... 4 / PST4B ... S4



PST4B ... F4

Ordering information/type code

		9B4 . XX	XX	XXX	XX	XX
Microswitch	Standard [1]	42				
	Standard [1]	33				
	Gold plated contacts [1]	84				

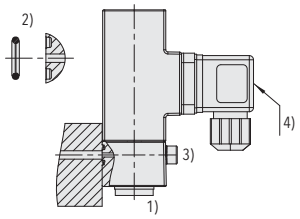
Range	Range [bar]	Over pressure [bar]		Range [si]	Over pressure [si]	
	-0.6 ... 3.4	12	74	-8 ... 45	174	G4
	0 ... 4	12	76	0 ... 50	174	G6
	0 ... 6	12	77	0 ... 100	174	G7
	1 ... 10	24	78	14 ... 150	348	G8
	1 ... 16	24	79	14 ... 250	348	G9
	2 ... 25	40	80	30 ... 400	580	H0
	4 ... 40	50	81	60 ... 500	725	H1

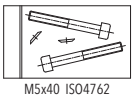
Sensor	Sensor material	Sensor housing material	Range	
	Bronze bellow (CuSn6) [2]	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	74	769
	Bronze bellow (CuSn6) [2]	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	76, 77	770
	Bronze bellow (CuSn6) [2]	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	78, 79	771
	Bronze bellow (CuSn6) [2]	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	80, 81	772
	Bronze bellow (CuSn6) [3] [4]	Brass (CuZn39Pb3)	74	789
	Bronze bellow (CuSn6) [3] [4]	Brass (CuZn39Pb3)	76, 77	790
	Bronze bellow (CuSn6) [3] [4]	Brass (CuZn39Pb3)	78, 79	791
	Bellows stainless steel (1.4404/AISI316L) [4]	Stainless steel	76, 77	753
	Bellows stainless steel (1.4404/AISI316L) [4]	Stainless steel	78, 79	754

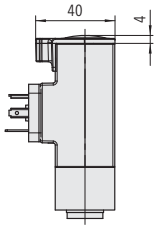
Pressure connection		
	G1/8" female	02
	G1/4" female	04
	M10x1.0" female [5]	03

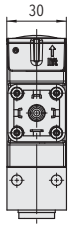
Accessories				
	Flange with O-Ring [4]	11	Lead seal (manipulation protection)	16
	Female electrical connector EN175301-803-A (DIN43650-A)	46	Switch point adjustment on customers request Please indicate when ordering: - Switchpoint including measurement unit (kPa, bar, MPa, psi, abs. or rel.) - Increasing or decreasing	88
	Welsh plug G1/4"	74		
	Fixing set	V3		
	Covering cap	15	Damping elements and snubber see data sheet H72258	

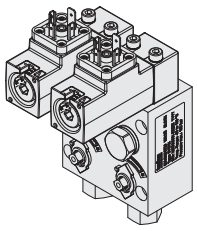
[1] Switching differential not adjustable
[2] Media contacting O-Ring
[3] O-Ring not media contacting
[4] Only with pressure connection 04 (G1/4") others upon request
[5] Please ask us











Diagnostic Valve Bloc (DVB)
see specification sheet H72361

1) Torque: G 1/4": M_A = 32 ... 40 Nm
2) O–Ring: ø 6.75x1.78 NBR 90 Sh
3) Fixing screw: M5;
property class: 8.8;
torque: 4.5 ... 6 Nm
4) Torque connector center screw: max. 0.4 Nm

Data sheet	H72367
Instructions	H73367

PST4K 9K4

Picostat Pressure Switch

Features

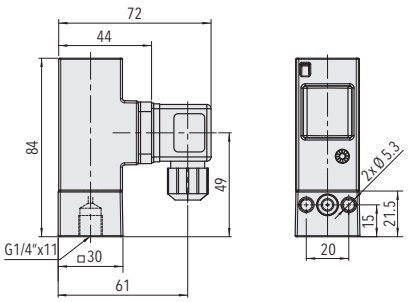
- Compact design
- Rugged housing
- Protection IP65 (with plug connector)
- Any mounting position possible

Technical Data			
Measuring principle	Piston	Repeatability	± 1.0 % FS typ.
Measuring range	1 ... 10 to 40 ... 400 bar 14 ... 150 to 580 ... 5800 psi	Media temperature	–25°C ... +125°C
Output signal	1 Floating change-over contact (SPDT)	Ambient temperature	-25°C ... +85°C
Switching differential	Not adjustable	Approval / conformity	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA, EN60730-1/ EN60730-2-6: Typ 2.B.H

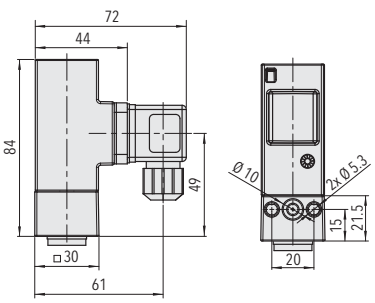
Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Switching differential [bar]
PST4K164	9K4 4279 756 04 0000 0000 15 46 V3	1 ... 16	100	0.4 ... 2.4 (fixed)
PST4K404	9K4 4281 757 04 0000 0000 15 46 V3	4 ... 40	100	1 ... 6 (fixed)
PST4K1004	9K4 4283 758 04 0000 0000 15 46 V3	10 ... 100	200	5 ... 15 (fixed)
PST4K2504	9K4 4285 759 04 0000 0000 15 46 V3	25 ... 250	400	12 ... 40 (fixed)
PST4K4004	9K4 4286 759 04 0000 0000 15 46 V3	40 ... 400	600	15 ... 50 (fixed)
PST4K16F4	9K4 4279 756 04 0000 0000 11 15 46 74 V3	1 ... 16	100	0.4 ... 2.4 (fixed)
PST4K40F4	9K4 4281 757 04 0000 0000 11 15 46 74 V3	4 ... 40	100	1 ... 6 (fixed)
PST4K100F4	9K4 4283 758 04 0000 0000 11 15 46 74 V3	10 ... 100	200	5 ... 15 (fixed)
PST4K250F4	9K4 4285 759 04 0000 0000 11 15 46 74 V3	25 ... 250	400	12 ... 40 (fixed)
PST4K400F4	9K4 4286 759 04 0000 0000 11 15 46 74 V3	40 ... 400	600	15 ... 50 (fixed)

Sensor: Piston 1.4035, sealing PTFE
Housing / pressure connection: Aluminium EN AW-6026 AlMgSiPb0.4 anodized

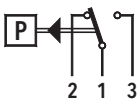


PST4K ... 4



PST4K ... F4

AC 250 V, 6 (1) A
DC 24 V, 3 (2) A
DC 220 V, 0.25 (0.1) A



Data sheet H72369
Instructions H73367

Ordering information/type code

		9K4 . XX	XX	XXX	XX	XX
Microswitch	Standard [1]	42				
	Standard [1]	33				
	Gold plated contacts [1]	84				

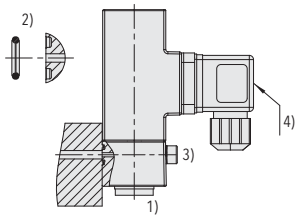
Range	Range [bar]	Over pressure [bar]		Range [psi]	Over pressure [psi]	
	1 ... 10	100	78	14 ... 150	1450	G8
	1 ... 16	100	79	14 ... 250	1450	G9
	2 ... 25	100	80	30 ... 400	1450	H0
	4 ... 40	100	81	60 ... 500	1450	H1
	6 ... 60	200	82	85 ... 850	2900	H2
	10 ... 100	200	83	150 ... 1500	2900	H3
	16 ... 160	400	84	250 ... 2500	5800	H4
	25 ... 250	400	85	350 ... 3500	5800	H5
	40 ... 400	600	86	580 ... 5800	8700	H6

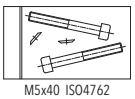
Sensor	Sensor material	Sensor housing material	Range	
	Piston 1.4035, sealing PTFE [2]	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	78, 79	756
	Piston 1.4035, sealing PTFE [2]	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	80, 81	757
	Piston 1.4035, sealing PTFE	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	82, 83	758
	Piston 1.4035, sealing PTFE	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	84, 85, 86	759

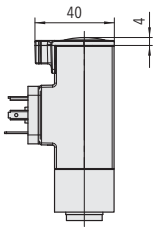
Pressure connection		
	G1/8" female	02
	G1/4" female	04
	M10x1.0" female [2]	03

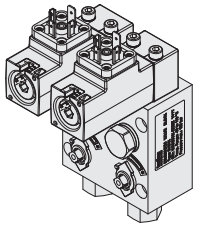
Accessories		
	Flange with O-Ring [3]	11
	Female electrical connector EN175301-803-A (DIN43650-A)	46
	Welsh plug G1/4"	74
	Fixing set	V3
	Covering cap	15
	Sealing switchpoint (manipulation protection)	16
	Switch point adjustment on customers request Please indicate when ordering: - Switchpoint including measurement unit (kPa, bar, MPa, psi, abs. or rel.) - Increasing or decreasing	88
	Damping elements and snubber see data sheet H72258	

[1] Switching differential not adjustable
[2] Please ask us
[3] Only with pressure connection 04 (G1/4"), others upon request









1) Torque: G 1/4": M_A = 32 ... 40 Nm
2) O-Ring: ø 6.75x1.78 NBR 90 Sh
3) Fixing screw: M5;
property class: 8.8;
torque: 4.5 ... 6 Nm
4) Torque connector center screw: max. 0.4 Nm

Diagnostik Ventil Block (DVB)
siehe Datenblatt H72361

PST4M 9M4

Picostat Pressure Switch

Features

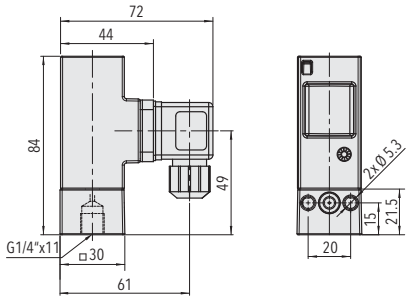
- Compact design
- Rugged housing
- Protection IP65
- Any mounting position possible

Technical Data			
Measuring principle	Membrane	Repeatability	± 2.0 % FS typ.
Measuring range	1 ... 10 to 10 ... 100 bar 14 ... 150 to 150 ... 1500 psi	Media temperature	0°C ... +80°C
Output signal	1 Floating change-over contact (SPDT)	Ambient temperature	0°C ... +80°C
Switching differential	Not adjustable	Approval / conformity	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA, EN60730-1/ EN60730-2-6: Typ 2.B.H

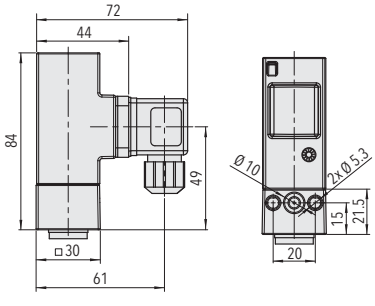
Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Switching differential [bar]
PST4M164	9M4 4279 761 04 0000 0000 15 46 V3	1 ... 16	200	0.2 ... 1.7 (fixed)
PST4M404	9M4 4281 762 04 0000 0000 15 46 V3	4 ... 40	200	1.2 ... 4.5 (fixed)
PST4M1004	9M4 4283 763 04 0000 0000 15 46 V3	10 ... 100	200	4 ... 16 (fixed)
PST4M16F4	9M4 4279 761 04 0000 0000 11 15 46 74 V3	1 ... 16	200	0.2 ... 1.7 (fixed)
PST4M40F4	9M4 4281 762 04 0000 0000 11 15 46 74 V3	4 ... 40	200	1.2 ... 4.5 (fixed)
PST4M100F4	9M4 4283 763 04 0000 0000 11 15 46 74 V3	10 ... 100	200	4 ... 16 (fixed)

Sensor: FKM Membrane
Housing / pressure connection: Aluminium EN AW-6082 AlMgSi1 anodized

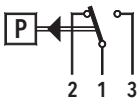


PST4M ... 4



PST4M ... F4

AC 250 V, 6 (1) A
DC 24 V, 3 (2) A
DC 220 V, 0.25 (0.1) A



Data sheet	H72368
Instructions	H73367

Ordering information/type code

		9M4 . XX	XX	XXX	XX	XX
Microswitch	Standard [1]	42				
	Standard [1]	33				
	Gold plated contacts [1]	84				

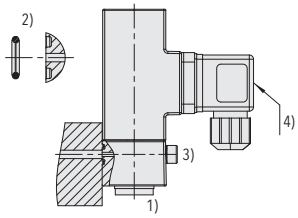
Range	Range [bar]	Over pressure [bar]		Range [si]	Over pressure [si]	
	1 ... 10	200	78	14 ... 150	2900	G8
	1 ... 16	200	79	14 ... 250	2900	G9
	2 ... 25	200	80	30 ... 400	2900	H0
	4 ... 40	200	81	60 ... 500	2900	H1
	6 ... 60	200	82	85 ... 850	2900	H2
	10 ... 100	200	83	150 ... 1500	2900	H3

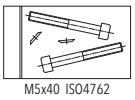
Sensor	Sensor material	Sensor housing material	Range	
	FKM Membrane	Aluminium EN AW-6082 AlMgSi1 anodized	78, 79	761
	FKM Membrane	Aluminium EN AW-6082 AlMgSi1 anodized	80, 81	762
	FKM Membrane	Aluminium EN AW-6082 AlMgSi1 anodized	82, 83	763

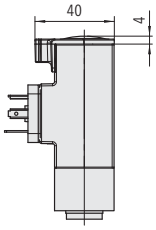
Pressure connection		
	G1/8" female	02
	G1/4" female	04
	M10x1.0" female [2]	03

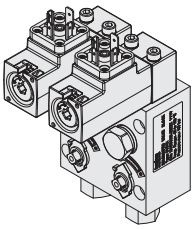
Accessories		
	Flange with O-Ring [3]	11
	Female electrical connector EN175301-803-A (DIN43650-A)	46
	Welsh plug G1/4"	74
	Fixing set	V3
	Covering cap	15
	Sealing switchpoint (manipulation protection)	16
	Switch point adjustment on customers request Please indicate when ordering: - Switchpoint including measurement unit (kPa, bar, MPa, psi, abs. or rel.) - Increasing or decreasing	88
	Damping elements and snubber see data sheet H72258	

[1] Switching differential not adjustable
[2] Please ask us
[3] Only with pressure connection 04 (G1/4"), others upon request









1) Torque: G 1/4": M_A = 32 ... 40 Nm
2) O–Ring: ø 6.75x1.78 NBR 90 Sh
3) Fixing screw:
M5; property class: 8.8;
torque: 4.5 ... 6 Nm
4) Torque connector center screw: max. 0.4 Nm

Diagnostic Valve Bloc (DVB)
see specification sheet H72361

PSTD 9D0

Differential Pressure Picostat

Features

- Compact design
- Rugged housing
- High repeatability
- Protection IP65 (with plug connector)
- Any mounting position possible

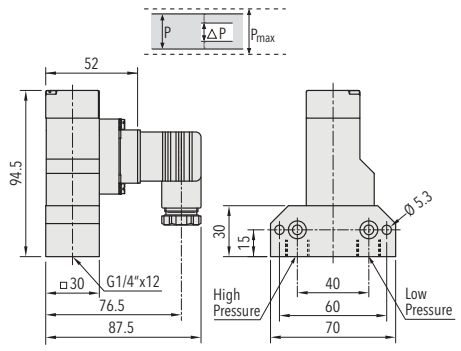
Technical Data			
Measuring principle	Bellow	Repeatability	± 1.0 % FS typ.
Measuring range	-1 ... 6 and -1 ... 8 bar	Media temperature	-25°C ... +120°C
Differential pressure	0 ... 4 and 0 ... 6 bar	Ambient temperature	-25°C ... +85°C
Output signal	1 Floating change-over contact (SPDT)	Approval / conformity	GL EN60730-1/ EN60730-2-6: Typ 2.B.H
Switching differential	Not adjustable		

Data sheet H72273
Instructions H73273

Standard products (extra short lead time)

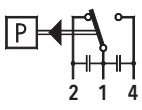
Product No.	Type Code	Pressure range [bar]	Differential pressure [bar]	Over pressure max. [bar]	Switching differential [bar]
PSTD4	9D0 2076 770 04 0000 0000 15 58 V3	-1 ... 6	0 ... 4	8	0.2 (fixed)
PSTD6	9D0 2077 771 04 0000 0000 15 58 V3	-1 ... 8	0 ... 6	12	0.3 (fixed)

Sensor: Bronze (CuSn8)
Housing / pressure connection: Brass (CuZn39Pb3)



PSTD ...

AC 250 V, 10 (3) A
DC 250 V, 0.1 (0.05) A
DC 220 V, 0.25 (0.2) A
DC 110 V, 0.5 (0.3) A
DC 24 V, 2 (1) A



P/PS 900/904/912

Pressostat

Features

- Rugged aluminium housing
- Protection IP65
- Any mounting position possible

Technical Data			
Measuring principle	Bellow	Repeatability	± 1.0 % FS typ.
Measuring range	-0.9 ... 1.5 to 10 ... 100 bar 5 ... 50 to 125 ... 1500 psi	Media temperature	-40°C ... +150°C
Output signal	1 Floating change-over contact (SPDT)	Ambient temperature	-25°C ... +70°C
Switching differential	Not adjustable	Approval / conformity	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA EN60730-1/ EN60730-2-6: Typ 2.B.H

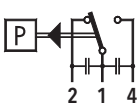
Data sheet H72252
Instructions H71261

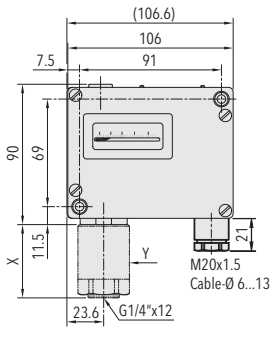
Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Switching differential [bar]	Diameter Y [mm]	Length X [mm]
P1.5	900 2672 900	-0.9 ... 1.5	10	0.1 (fixed)	45	56.5
P2.5	900 2675 901	0.2 ... 2.5	10	0.1 (fixed)	45	56.5
P4	900 2376 903	0 ... 4	12	0.2 (fixed)	33	47
P6	900 2377 903	0 ... 6	12	0.2 (fixed)	33	47
P10	900 2378 905	1 ... 10	24	0.4 (fixed)	27	42.5
P16	900 2379 905	1 ... 16	24	0.4 (fixed)	27	42.5
P25	900 2380 907	2 ... 25	40	1 (fixed)	33	47
P40	900 2381 907	4 ... 40	40	1 (fixed)	33	47
PS1.5	904 2672 900	-0.9 ... 1.5	10	0.1 (fixed)	45	56.5
PS2.5	904 2675 901	0.2 ... 2.5	10	0.1 (fixed)	45	56.5
PS6	904 2377 903	0 ... 6	12	0.2 (fixed)	33	47
PS16	904 2379 905	1 ... 16	24	0.4 (fixed)	27	42.5
PS40	904 2381 907	4 ... 40	40	1 (fixed)	27	42.5

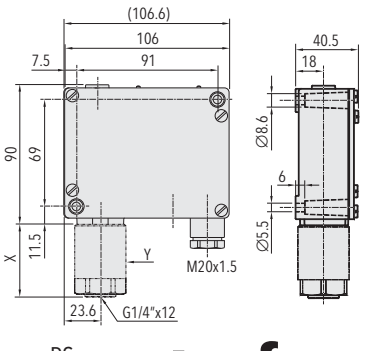
Sensor: Bronze (CuSn8)
Housing / pressure connection: Brass (CuZn39Pb3)

AC 500 V, 10 (0.75) A
DC 30 V, 15 (1.5) A
DC 250 V, 0.3 (0.2) A





P ...



PS ...

PV/PVF 903/907/915/940/941/942

Vari Pressostat

Features

- Rugged aluminium housing
- Protection IP65
- Any mounting position possible

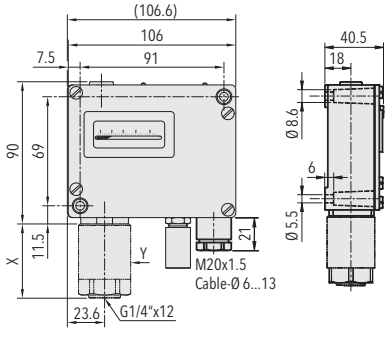
Technical Data			
Measuring principle	Bellow	Repeatability	± 1.0 % FS typ.
Measuring range	-0.9 ... 1.5 to 4 ... 40 bar 5 ... 50 to 50 ... 500 psi	Media temperature	-40°C ... +150°C
Output signal	1 Floating change-over contact (SPDT)	Ambient temperature	-25°C ... +70°C
Switching differential	Adjustable	Approval / conformity	ABS, BV, DNV, GL, KRS, LRS, RINA EN60730-1/ EN60730-2-6: Typ 2.B.H
Switching point	Calibration for decreasing pressure		

Data sheet H72257
Instructions H71261

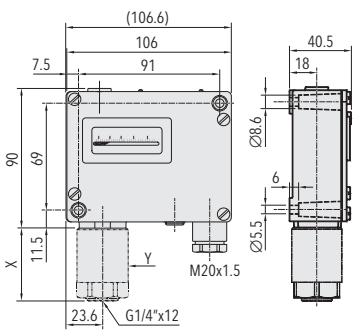
Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Switching differential [bar]	Diameter Y [mm]	Length X [mm]
PV6	903 2377 903	0 ... 6	12	0.4 ... 3.2 (adjustable)	33	47
PV16	903 2379 905	1 ... 16	24	1 ... 7.5 (adjustable)	27	42.5
PV40	903 2381 907	4 ... 40	40	3 ... 18 (adjustable)	27	42.5
PVF1.5	940 2372 900	-0.9 ... 1.5	10	0.06 ... 0.2 (adjustable)	45	56.5
PVF2.5	940 2375 901	0.2 ... 2.5	10	0.06 ... 0.2 (adjustable)	45	56.5
PVF6	940 2377 903	0 ... 6	12	0.2 ... 0.6 (adjustable)	33	47
PVF16	940 2379 905	1 ... 16	24	0.5 ... 1.6 (adjustable)	27	42.5

Sensor: Bronze (CuSn8)
Housing / pressure connection: Brass (CuZn39Pb3)

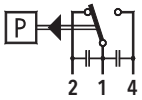


PV ...



PVF ...

AC 500 V, 10 (0.75) A
DC 30 V, 15 (1.5) A
DC 250 V, 0.3 (0.2) A



PK 944/947

Pressostat

Features

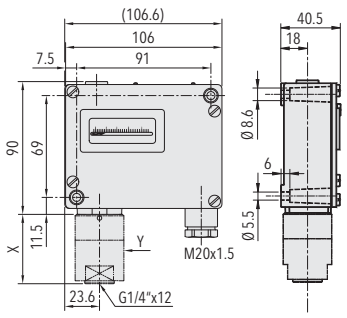
- Rugged aluminium housing
- Protection IP65
- Any mounting position possible

Technical Data			
Measuring principle	Piston	Repeatability	± 1.0 % FS typ.
Measuring range	1 ... 10 to 60 ... 600 bar	Media temperature	O-Ring NBR: -30°C ... +100°C O-Ring FKM: -15°C ... +150°C
Output signal	1 Floating change-over contact (SPDT)	Ambient temperature	-20°C ... +70°C
Switching differential	Not adjustable	Approval / conformity	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA EN60730-1/ EN60730-2-6: Typ 2.B.H

Data sheet H72259
Instructions H71261

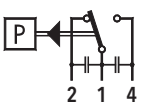
Standard products (extra short lead time)						
Product No.	**Type Code**	**Pressure range [bar]**	**Over pressure max. [bar]**	**Switching differential [bar]**	**Diameter Y [mm]**	**Length X [mm]**
PK10	944 2378 700	1 ... 10	100	0.45 ... 0.9 (fixed)	33	47
PK40	944 2381 704	4 ... 40	200	1.8 ... 3.4 (fixed)	27	42.5
PK100	944 2383 708	10 ... 100	200	3.2 ... 7.5 (fixed)	27	42.5
PK250	944 2385 712	25 ... 250	400	5.2 ... 16 (fixed)	27	42.5

Sensor: 1.4435, O-ring NBR
Housing / pressure connection: 1.4435



PK ...

AC 500 V, 10 (0.75) A
DC 30 V, 15 (1.5) A
DC 250 V, 0.3 (0.2) A



PD 920/924/932

Differential Pressure Pressostat

Features

- Rugged aluminium housing
- Protection IP65
- Any mounting position possible

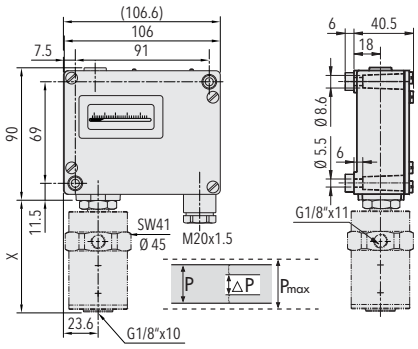
Technical Data			
Measuring principle	Bellow	Repeatability	± 1.0 % FS typ.
Measuring range	-1 ... 6 to -1 ... 18 bar	Media temperature	-40°C ... +150°C
Differential pressure	-0.6 ... 3.4 to 1 ... 16 bar	Ambient temperature	-25°C ... +70°C
Output signal	1 Floating change-over contact (SPDT)	Approval / conformity	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA EN60730-1/ EN60730-2-6: Typ 2.B.H
Switching differential	Not adjustable		

Data sheet H72253
Instructions H73256

Standard products (extra short lead time)

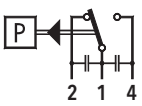
Product No.	Type Code	Pressure range [bar]	Differential pressure [bar]	Over pressure max. [bar]	Switching differential [bar]	Length X [mm]
PD3.4	920 2374 931	-1 ... +6	-0.6 ... +3.4	12	0.16 (fixed)	77
PD6	920 2377 933	-1 ... +8	0 ... 6	12	0.16 (fixed)	77
PD16	920 2379 935	-1 ... 18	1 ... 16	24	0.4 (fixed)	87

Sensor: Bronze
Housing / pressure connection: Brass



PK ...

AC 500 V, 10 (0.75) A
DC 30 V, 15 (1.5) A
DC 250 V, 0.3 (0.2) A



901/902/905/906

Limi Pressostat

Features

- Rugged aluminium housing
- Protection IP65
- Any mounting position possible

Technical Data	
Measuring principle	Bellow
Measuring range	-0.9 ... 1.5 to 4 ... 40 bar
Output signal	1 Floating change-over contact (SPDT)
Switching differential	Not adjustable
Repeatability	± 1.0 % FS typ.
Media temperature	-40°C ... +150°C
Ambient temperature	-25°C ... +70°C
Approval / conformity	EN60730-1/ EN60730-2-6: Typ 2.B.H

Data sheet H72254

901/902/905/906

Limi Membrane Pressostat

Features

- Rugged aluminium housing
- Protection IP65
- Any mounting position possible

Technical Data	
Measuring principle	Membrane
Measuring range	30 ... 600 and 50 ... 1000 mbar
Output signal	1 Floating change-over contact (SPDT)
Switching differential	Not adjustable
Repeatability	± 1.0 % FS typ.
Media temperature	-40°C ... +150°C
Ambient temperature	-25°C ... +70°C
Approval / conformity	EN60730-1/ EN60730-2-6: Typ 2.B.H

Data sheet H72269

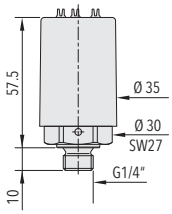
987/988

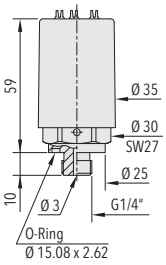
Pressostat

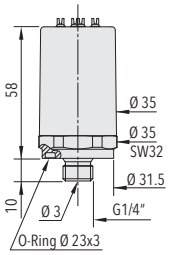
Features

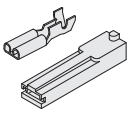
- Steel or bronze bellows
- Blade connector (IEC) 2.8 x 0.5 mm
- Compact design
- Adjustment in factory

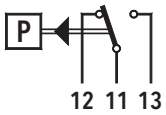
Technical Data			
Measuring principle	Bellow	Repeatability	± 1.0 % FS typ.
Measuring range	-0.3 ... 1.3 to 1 ... 10 bar	Media temperature	-25°C ... +80°C
Output signal	1 or 2 floating change-over contacts (SPDT)	Ambient temperature	-25°C ... +70°C
Switching differential	Not adjustable	Approval / conformity	EN60730-1/ EN60730-2-6: Typ 2.B.H
Switching point	Adjustment in factory		



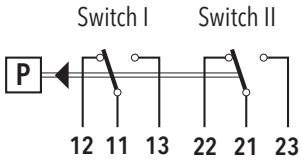








987



988

Data sheet H72272
Instructions H73272

Ordering information/type code

		XXX	XX	XX	XXX	XX	XX	XX
Custom build code	1 Floating change-over contact (SPDT)	**987**						
	2 Floating change-over contacts (SPDT)	**988**						
Microswitch	Standard contacts, switching differential not adjustable		**42**					
	With gold plated contacts, switching differential not adjustable		**84**					

Range	**Range [bar]**	**Over pressure [bar]**	**Burst pressure [bar]**	
	-0.3 ... 1.3	-1 ... 4	10	**72**
	0 ... 1.6	-1 ... 4	10	**73**
	0 ... 2.5	-1 ... 4	10	**75**
	0 ... 4	-1 ... 6	10	**76**
	1 ... 10	-1 ... 15	15	**78**

Sensor	**Sensor material**	**Pressure connection**	**Range**	
	Bellows: 1.4301 (AISI 304)	1.4301 (AISI 304), with groove for O-ring	73, 75	**847**
	Bellows: 1.4301 (AISI 304)	1.4301 (AISI 304), with groove for O-ring	76	**846**
	Bellows: Bronze (CuSn6)	Brass (CuZn39Pb3), without groove for O-ring	72, 73, 75	**947**
	Bellows: Bronze (CuSn6)	Brass (CuZn39Pb3), without groove for O-ring	76	**946**
	Bellows: Bronze (CuSn6)	Brass (CuZn39Pb3), without groove for O-ring	78	**945**
	Bellows: Bronze (CuSn6)	Brass (CuZn39Pb3), with groove for O-ring	72, 73, 75	**949**
	Bellows: Bronze (CuSn6)	Brass (CuZn39Pb3), with groove for O-ring	76	**948**
	Bellows: Bronze (CuSn6)	Brass (CuZn39Pb3), with groove for O-ring	78	**939**

Code number	Specified by Trafag						**XX**	
Fixing	Direct on sensor or housing							**00**
Accessories	Blade receptacle (2.8 x 0.5 mm) and insulator for flat plugs (2 x 6 pcs.)							**09**
	Switchpoint fixed and sealed upon customer's request							**88**
	Switchpoint preset upon customer's request, no guarantee on switching accuracy							**83**
	Switchpoint adjustment switch I (lower switchpoint) and switch II (upper switchpoint) Please indicate for each switch when ordering: - Switchpoint [bar] - Increasing or decreasing							
	Routine test of leakage rate < 10^{-7} mbar·l/s							**05**
	Damping elements and snubber see data sheet H72258							

Switching differential typ. @ 25°C

Measuring range bellows sensor	**[bar]**	**-0.3 ... 1.3**	**0 ... 1.6**	**0 ... 2.5**	**0 ... 4**	**1 ... 10**
Microswitch 42/84: Switching differential not adjustable	**[bar]**	0.1	0.1	0.2	0.3	0.6
Setting tolerance	**[bar]**	±0.08	±0.08	±0.12	±0.16	±0.2
Adjustment range of switch-points, increasing	**[bar]**	-0.3 ... 1.4	0.2 ... 1.7	0.3 ... 3.2	0.4 ... 4.8	0.5 ... 11*
Adjustment range of switch-points, decreasing	**[bar]**	-0.4 ... 1.3	0.1 ... 1.6	0.1 ... 3.0	0.1 ... 4.5	0.2 ... 10*

* Pressure range 1 ... 10 bar: Max. 2 bar switchpoint difference

EXP 900/904/912

Ex Pressostat

Features

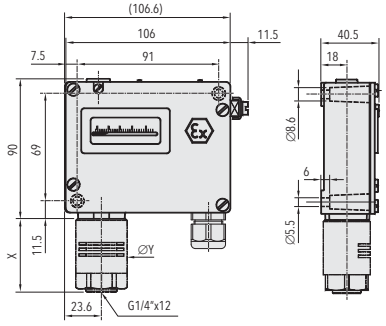
- Rugged aluminium housing, option: housing stainless steel
- Protection IP66
- Any mounting position possible
- Ex d e IIC T6 Gb
- Ex tb IIIC T80°C Db

Technical Data			
Measuring principle	Bellow	Media temperature	-40°C ... +150°C
Measuring range	-0.9 ... 1.5 to 4 ... 40 bar	Ambient temperature	-50°C ... +65°C
Output signal	1 Floating change-over contact (SPDT)	Approval / conformity	SEV 15 ATEX 0157 X
Switching differential	Not adjustable	Type of protection	Areas with gaz explosion hazards: II 2 G Ex d e IIC T6 Gb Areas with dust explosion hazards: II 2 D Ex tb IIIC T80°C Db
Repeatability	± 1.0 % FS typ.		

Standard products (extra short lead time)

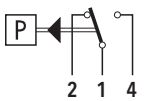
Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Switching differential [bar]	Diameter Y [mm]	Length X [mm]
EXP1.5	900 9172 850 00 0000 0000 02	-0.9 ... 1.5	10	0.2 (fixed)	45	56.5
EXP2.5	900 9175 851 00 0000 0000 02	0.2 ... 2.5	10	0.2 (fixed)	45	56.5
EXP6	900 9177 853 00 0000 0000 02	0 ... 6	12	0.4 (fixed)	33	47
EXP16	900 9179 855 00 0000 0000 02	1 ... 16	24	0.9 (fixed)	27	42.5

Sensor: 1.4435
Housing / pressure connection: Brass nickel plated



EXP ...

AC 250 V, 5 (5) A
DC 30 V, 5 (3) A
DC 250 V, 0.25 (0.03) A



Data sheet H72263
Instructions H73171

Ordering information/type code

		XXX	XX	XX	XXX	XX	XX
Custom build code	With display and adjusting screw	**900**					
	Without display, with adjusting screw	**904**					
	With display and adjusting knob	**912**					
Microswitch	Standard, switching differential not adjustable		**91**				

Range

Range [bar]	Over pressure [bar]	Burst pressure [bar]	
-0.9 ... 1.5	10	13	**72**
0.2 ... 1.6	10	13	**73**
0.2 ... 2.5	10	13	**75**
0 ... 4	12	26	**76**
0 ... 6	12	26	**77**

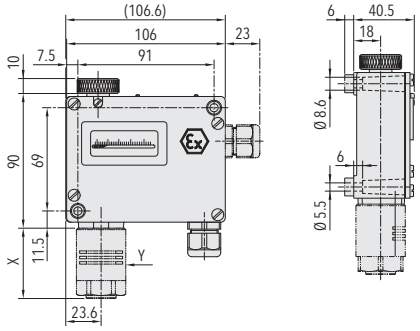
Range [bar]	Over pressure [bar]	Burst pressure [bar]	
1 ... 10	24	36	**78**
1 ... 16	24	36	**79**
2 ... 25	40	75	**80**
4 ... 40	40	75	**81**

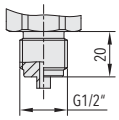
Sensor

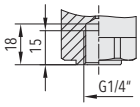
Sensor material	Sensor housing material	Thread	Range	
1.4435	Brass nickel plated	G1/4" female	72	**850**
1.4435	Brass nickel plated	G1/2" male	72	**859**
1.4435	Brass nickel plated	G1/4" female	73, 75	**851**
1.4435	Brass nickel plated	G1/2" male	73, 75	**852**
1.4435	Brass nickel plated	G1/4" female	76, 77	**853**

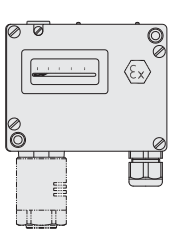
Sensor material	Sensor housing material	Thread	Range	
1.4435	Brass nickel plated	G1/2" male	76, 77	**854**
1.4435	Brass nickel plated	G1/4" female	78, 79	**855**
1.4435	Brass nickel plated	G1/2" male	78, 79	**856**
1.4435	Brass nickel plated	G1/4" female	80, 81	**857**
1.4435	Brass nickel plated	G1/2" male	80, 81	**858**

Fixing	Direct on sensor or housing					**00**	
	With mounting bracket					**31**	
Accessories	Housing stainless steel						**06**
	Damping elements and snubber see data sheet H72258						

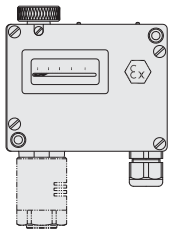




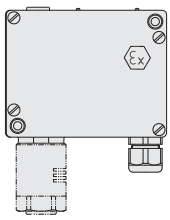




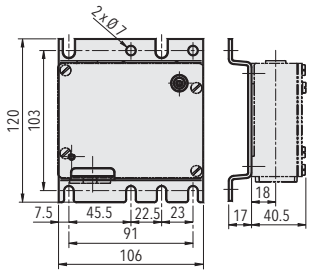
900



912



904



Mounting plate MB31 see chapter 'Accessories'

EXPK 944/947/953

Ex Pressostat

Features

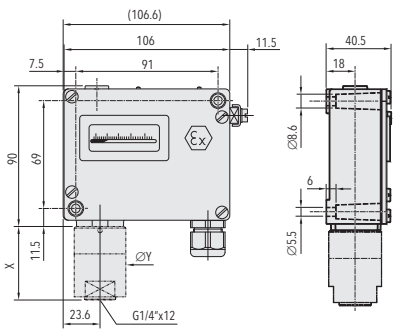
- Rugged aluminium housing, option: housing stainless steel
- Protection IP66
- Any mounting position possible
- Ex d e IIC T6 Gb
- Ex tb IIIC T80°C Db

Technical Data			
Measuring principle	Piston	Media temperature	NBR: -30°C ... +100°C FKM: -15°C ... +150°C
Measuring range	1 ... 10 to 60 ... 600 bar	Ambient temperature	-50°C ... +65°C
Output signal	1 Floating change-over contact (SPDT)	Approval / conformity	SEV 15 ATEX 0157 X
Switching differential	Not adjustable	Type of protection	Areas with gas explosion hazards: II 2 G Ex d e IIC T6 Gb; Areas with dust explosion hazards: II 2 D Ex tb IIIC T80°C Db
Repeatability	± 1.0 % FS typ.		

Standard products (extra short lead time)

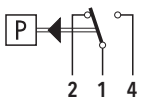
Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Switching differential [bar]	Diameter Y [mm]	Length X [mm]
EXPK10	944 9178 700 00 0000 0000 02	1 ... 10	100	0.4 ... 0.8 (fixed)	33	47
EXPK40	944 9181 704 00 0000 0000 02	4 ... 40	200	2 ... 5 (fixed)	27	42.5
EXPK100	944 9183 708 00 0000 0000 02	10 ... 100	200	4 ... 11 (fixed)	27	42.5
EXPK250	944 9185 712 00 0000 0000 02	25 ... 250	400	8 ... 26 (fixed)	27	42.5

Sensor: 1.4435, O-ring NBR
Housing / pressure connection: 1.4435



EXPK ...

AC 250 V, 5 (5) A
DC 30 V, 5 (3) A
DC 250 V, 0.25 (0.03) A



Data sheet H72270
Instructions H73171

EXPD 920/924/932

Ex Differential Pressostat

Features

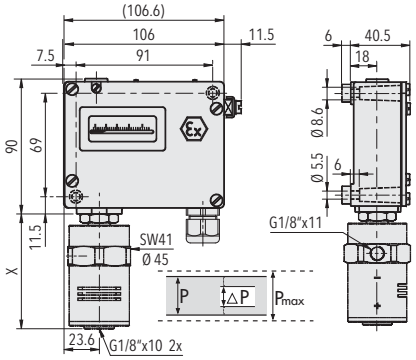
- Rugged aluminium housing
- Protection IP66
- Ex d e IIC T6 Gb
- Ex tb IIIC T80°C Db
- Any mounting position possible

Technical Data			
Measuring principle	Bellow	Repeatability	± 1.0 % FS typ.
Measuring range	-1 ... 6 to -1 ... 18 bar	Media temperature	-50°C ... +150°C
Differential pressure	-0.6 ... 3.4 to1 ... 16 bar	Ambient temperature	-50°C ... +65°C
Output signal	1 Floating change-over contact (SPDT)	Approval / conformity	SEV 15 ATEX 0157 X
Switching differential	Not adjustable	Type of protection	Areas with gas explosion hazards: II 2 G Ex d e IIC T6 Gb; Areas with dust explosion hazards: II 2 D Ex tb IIIC T80°C Db

Standard products (extra short lead time)

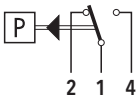
Product No.	Type Code	Pressure range [bar]	Differential pressure [bar]	Over pressure max. [bar]	Switching differential [bar]	Length X [mm]
EXPD3.4	920 9174 992 00 0000 0000 02	-1 ... +6	-0.6 ... +3.4	12	0.4 (fixed)	77
EXPD6	920 9177 993 00 0000 0000 02	-1 ... +8	0 ... 6	12	0.4 (fixed)	77
EXPD16	920 9179 994 00 0000 0000 02	-1 ... +18	1 ... 16	24	0.7 (fixed)	87

Sensor: Bronze
Housing / pressure connection: Brass nickel plated



EXPD ...

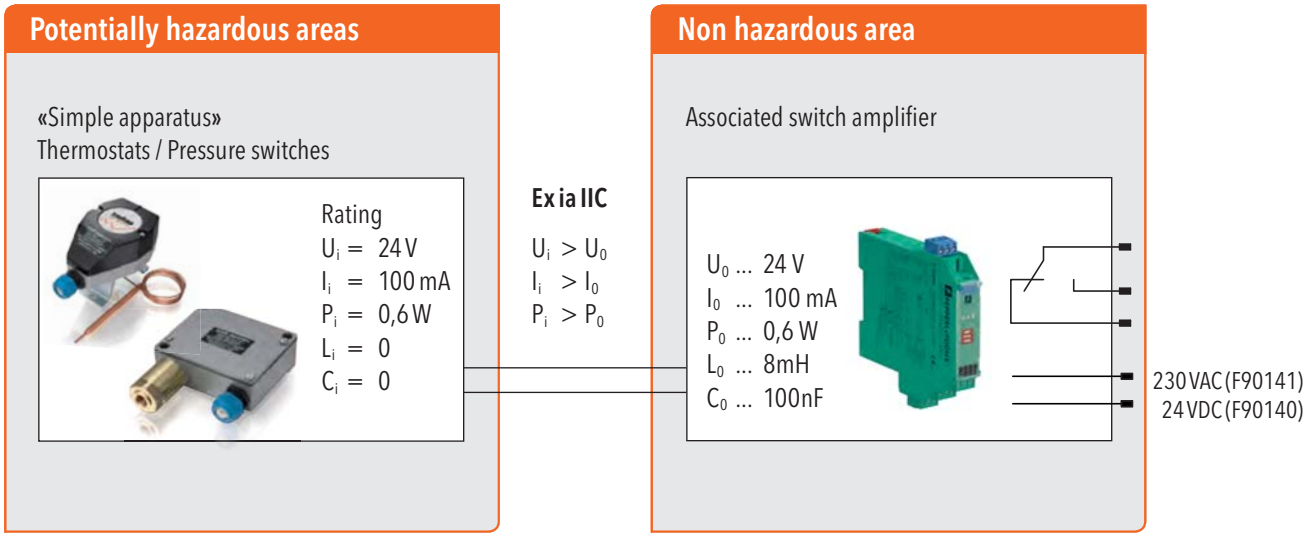
AC 250 V, 5 (5) A
DC 30 V, 5 (3) A
DC 250 V, 0.25 (0.03) A



Data sheet H72256
Instructions H73171

Simple Apparatus

Pressostats and Thermostats, when combined with a certified switch amplifier (Zener barrier/Zener relay), can be used as «simple electrical apparatus» in Zone 1 and 2, as well as in Zone 21 and 22, according to IEC/EN 60079-14. These pressostats and thermostats are not suitable for Zone 0 and Zone 20. The use in safety relevant applications (approved electrical apparatus) is not permitted.
Switch amplifiers are suitable for intrinsically safe applications. The device transmits signals from the hazardous area into the safe area.



Recommended switch amplifier (see chapter "Accessories"):
Trafag parts no.: ZEN230VAC (230 VAC)
ZEN24VDC (24 VDC)
If another type of switch amplifier is used, make sure its electrical rating limits are within the specification of the simple apparatus thermostat or pressostat.

«Simple Apparatus» 904 conformity to ATEX

Pressostat

Features

- Compact design
- Rugged housing
- Protection IP65
- Any mounting position possible
- May be used as „simple apparatus" in zones at risk of explosions

Technical Data	
Measuring principle	Bellow
Measuring range	-0.9 ... 1.5 to 10 ... 100 bar
Output signal	1 Floating change-over contact (SPDT)
Switching differential	Not adjustable
Repeatability	± 1.0 % FS typ.
Media temperature	-40°C ... +150°C
Ambient temperature	-25°C ... +70°C
Approval / conformity	EN60730-1/ EN60730-2-6: Typ 2.B.H EN60079-0, EN60079-11 Zone 1 and 2, 21 and 22

Switch amplifier See chapter "Accessories"

Data sheet H72364

«Simple Apparatus» 924 conformity to ATEX

Differential Pressure Pressostat

Features

- Compact design
- Rugged housing
- Protection IP65
- Any mounting position possible
- May be used as „simple apparatus" in zones at risk of explosions

Technical Data	
Measuring principle	Bellow
Measuring range	-1 ... 6 to -1 ... 18 bar
Differential pressure	-0.6 ... 3.4 to1 ... 16 bar
Output signal	1 Floating change-over contact (SPDT)
Switching differential	Not adjustable
Repeatability	± 1.0 % FS typ.
Media temperature	-40°C ... +150°C
Approval / conformity	EN60730-1/ EN60730-2-6: Typ 2.B.H EN60079-0, EN60079-11 Zone 1 and 2, 21 and 22

Switch amplifier See chapter "Accessories"

Data sheet H72365

Technical data pressure switches

	PST4B 9B4	PST4K 9K4	PST4M 9M4	PSTD 9D0	P/PS 900/904/912	PV/PVF 903/907/915/940/941/942
Main characteristics						
Measuring principle	Bellow	Piston	Membrane	Bellow	Bellow	Bellow
Measuring range	-0.6 ... 3.4 to 4 ... 40 bar -8 ... 45 to 60 ... 500 psi	1 ... 10 to 40 ... 400 bar 14 ... 150 to 580 ... 5800 psi	1 ... 10 to 10 ... 100 bar 14 ... 150 to 150 ... 1500 psi	-1 ... 6 and -1 ... 8 bar	-0.9 ... 1.5 to 10 ... 100 bar 5 ... 50 to 125 ... 1500 psi	-0.9 ... 1.5 to 4 ... 40 bar 5 ... 50 to 50 ... 500 psi
Output signal	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)
Switching differential	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Adjustable
Accuracy						
Repeatability	± 0.5 % FS typ.	± 1.0 % FS typ.	± 2.0 % FS typ.	± 1.0 % FS typ.	± 1.0 % FS typ.	± 1.0 % FS typ.
Resistance of insulation	500 VDC > 10 MΩ	500 VDC > 10 MΩ	500 VDC > 10 MΩ	> 2 MΩ	> 2 MΩ	500 VDC/100 MΩ
Dielectric strength	>1.5 kV AC/60 s terminal ground >500 VAC/60 s via open contacts	(IEC/EN 60730-1) >1.5 kV AC/60 s terminal ground >500 VAC/60 s via open contacts	(IEC/EN 60730-1) >1.5 kV AC/60 s terminal ground >500 VAC/60 s via open contacts	1.45 kV terminal ground	U ≤ 250V: 1.45 kV / U ≤ 500V: 2 kV terminal ground	2 kV terminal ground
Cable gland					M20x1.5 Cable-Ø 6...13 mm	M20x1.5 Cable-Ø 6...13 mm
Terminal screw					3 x 1.5...4 mm²	3 x 1.5...4 mm²
Electrical connections	EN175301-803-A (DIN43650-A)	EN175301-803-A (DIN43650-A)	EN175301-803-A (DIN43650-A)	EN175301-803-A (DIN43650-A)	Screw terminal	Screw terminal
Environmental conditions						
Media temperature	–25°C ... +125°C –40°C ... +125°C	–25°C ... +125°C –40°C ... +125°C	0°C ... +80°C	-25°C ... +120°C	-40°C ... +150°C	-40°C ... +150°C
Ambient temperature	–25°C ... +125°C –40°C ... +125°C	–25°C ... +125°C –40°C ... +125°C	0°C ... +80°C	-25°C ... +85°C	-25°C ... +70°C	-25°C ... +70°C
Protection	IP65	IP65	IP65	IP65	IP65	IP65
Humidity	Max. 95 % relative	Max. 95 % relative	Max. 95 % relative	Max. 95 % relative	Max. 95% relative	Max.95 % relative
Vibration	Switch: IEC/EN 60068-2-6 10...59 Hz: ±0.75 mm Ampl. 59...500 Hz: 5 g	Switch IEC/EN 60068-2-6: 10...59 Hz: ±0.75 mm Ampl. 59...500 Hz: 5 g	Switch IEC/EN 60068-2-6: 10...59 Hz: ±0.75 mm Ampl. 59...500 Hz: 5 g	5...25 Hz: ±1.6 mm 25...100 Hz: 4 g	Switch 23/26: 5...25 Hz: ±1.6 mm 25...100 Hz: 4 g Ranges 72, 73, 75, 5...50 Hz: 20 mm/sec.	5...25 Hz: ±1.6 mm 25...100 Hz: 4 g Ranges 72, 73, 75 5...50 Hz: 20 mm/sec.
Shock	50 g / 3 ms	50 g / 3 ms	50 g / 3 ms	50 g / 11 ms	50 g / 11 ms	50 g / 11 ms
Mechnical data						
Housing	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	Aluminium EN AW-6026 AlMgSiPb0.4 anodized	Aluminium EN AW-6082 AlMgSi1 anodized	Brass CuZn39Pb3	AlSi10Mg/ Epoxy coated	AlSi10Mg/ Epoxy coated
Sealing	HNBR 75 Sh	PTFE	FKM	-	NBR	NBR
Weight	~ 160 g	~ 200 g	~ 200 g	~ 800 g	~ 710 g	~ 710 g

	PK 944/947	PD 920/924/932	901/902/905/906	987/988	EXP 900/904/912	EXPK 944/947/953	EXPD 920/924/932
	Piston	Bellow	Membrane	Bellow	Bellow	Piston	Bellow
	1 ... 10 to 60 ... 600 bar	-1 ... 6 to -1 ... 18 bar	30 ... 600 and 50 ... 1000 mbar	-0.3 ... 1.3 to 1 ... 10 bar	-0.9 ... 1.5 to 4 ... 40 bar	1 ... 10 to 60 ... 600 bar	-1 ... 6 to -1 ... 18 bar
	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 or 2 floating change-over contacts (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)	1 Floating change-over contact (SPDT)
	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Not adjustable
	± 1.0 % FS typ.	± 1.0 % FS typ.	± 1.0 % FS typ.	± 1.0 % FS typ.	± 1.0 % FS typ.	± 1.0 % FS typ.	± 1.0 % FS typ.
	500 VDC / 100 MΩ	> 2 MΩ	> 2 MΩ	> 2 MΩ, 500 VDC	> 2 MΩ	> 2 MΩ	> 2 MΩ
	U ≤ 250V: 1.45 kV / U ≤ 500V: 2 kV terminal ground	U ≤ 250V: 1.45 kV/ U ≤ 500V: 2 kV terminal ground	2 kV terminal ground	2 kV terminal ground	1.5 kV	1.5 kV	1.5 kV
	M20x1.5 Cable-Ø 6...13 mm	M20x1.5 Cable-Ø 6...13 mm	M20x1.5 Cable-Ø 6...13 mm		M20x1.5/SW24 Cable-Ø 5.5-13 mm Approval: PTB 99 ATEX 3128 X	M20x1.5/SW24 Cable-Ø 5.5...13 mm Approval: PTB 99 ATEX 3128 X	M20x1.5/SW24 Cable-Ø 5.5...13 mm Approval: PTB 99 ATEX 3128 X
	3 x 1.5...4 mm²	3 x 1.5...4 mm²	3 x 0.5...4 mm²		3 x 0.5...1.5 mm²	3 x 0.5...1.5 mm²	3 x 0.5...1.5 mm²
	Screw terminal	Screw terminal	Screw terminal	Blade connector	Screw terminal	Screw terminal	Screw terminal
	NBR: -30°C ... +100°C FKM: -15°C ... +150°C	-40°C ... +150°C	-40°C ... +150°C	-25°C ... +80°C	-40°C ... +150°C	NBR: -30°C ... +100°C FKM: -15°C ... +150°C	-50°C ... +150°C
	-20°C ... +70°C	-25°C ... +70°C	-25°C ... +70°C	-25°C ... +70°C	-50°C ... +65°C	-50°C ... +65°C	-50°C ... +65°C
	IP65	IP65	IP65	IP40 (Microswitch IP67)	IP66	IP66	IP66
	Max.95 % relative	Max. 95 % relative	Max. 95 % relative	Max.95 % relative	Max.95 % relative	Max. 95 % relative	Max. 95 % relative
	Switch 23/26: 5...25 Hz: ±1.6 mm 25...100 Hz: 4 g	Switch 23/26: 5...25 Hz: ±1.6 mm 25...100 Hz: 4 g	5...25 Hz: ±1.6 mm 25...100 Hz: 4 g	5 ... 100 Hz: 2 g	5...25 Hz: ±1.6 mm 25...100 Hz: 4 g Ranges 72, 73, 75: 5...50 Hz: 20 mm/sec.	5...25 Hz: ±1.6 mm 25...100 Hz: 4 g	5...25 Hz: ±1.6 mm 25...100 Hz: 4 g
	50 g / 11 ms	50 g / 11 ms	50 g / 11 ms	50 g / 11 ms	50 g / 11 ms	50 g / 11 ms	50 g / 11 ms
	AlSi10Mg/ Epoxy coated	AlSi10Mg/ Epoxy coated	AlSi10Mg/ Epoxy coated	PBTP, Crastin	AlSi10Mg/ Epoxy coated Accessory 06: 1.4301 (AISI 304)	AlSi10Mg/ Epoxy coated Accessory 06: 1.4301 (AISI 304)	AlSi10Mg/ Epoxy coated
	NBR/FKM	NBR	NBR	-	NBR	NBR / FKM	NBR
	~ 710 g	~ 610 g	~ 850 g	~ 110 g	~ 710 g	~ 710 g	~ 610 g