PRESSOSTAT

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



Applications

- Shipbuilding
- Engine manufacturing
- Railways
- Machine tools
- Hydraulics

Features

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

08/2024
Data sheet H72252v
Subject to change

Technical Data			
Measuring principle	Bellow	Repeatability	± 1.0 % FS typ.
Measuring range	-0.9 ... 1.5 to 10 ... 100 bar	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: Type 2.B.H

Trafag sensors & controls
Switzerland

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www.trafag.com

trafag sensors controls

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	Small switching differential, standard vibration resistance [1) 2)]	**10**
	Average switching differential, standard vibration resistance [1)]	**11**
	Average switching differential, increased vibration resistance [1)]	**23**
	Large switching differential, high vibration resistance [1)]	**26**
	With gold plated contacts, standard vibration resistance [1)]	**21**

Range	Range [bar]	Over pressure [bar]	Burst pressure [bar]	Range [psi]	Over pressure [psi]	Burst pressure [psi]	
	-0.9 ... 1.5	10	13	-13.1 ... 21.8	145	188	**72**
	0.2 ... 1.6	10	13	2.9 ... 23.2	145	188	**73**
	0.2 ... 2.5	10	13	2.9 ... 36.3	145	188	**75**
	0 ... 4	12	26	0 ... 58	174	377	**76**
	0 ... 6	12	26	0 ... 87	174	377	**77**
	1 ... 10	24	36	14.5 ... 145	348	522	**78**
	1 ... 16	24	36	14.5 ... 232	348	522	**79**
	2 ... 25	40	75	29 ... 362	580	1087	**80**
	4 ... 40	40	75	58 ... 580	580	1087	**81**
	6 ... 60	100	160	87 ... 870	870	2320	**82**
	10 ... 100	100	160	145 ... 1450	870	2320	**83**

Sensor	Sensor material	Sensor housing material	Thread	Range	
	Bronze bellows (CuSn6)	Brass (CuZn39Pb3)	G1/4" female	72	**900**
	Bronze bellows (CuSn6)	Brass (CuZn39Pb3)	G1/4" female	73, 75	**901**
	Bronze bellows (CuSn6)	Brass (CuZn39Pb3)	G1/4" female	76 ,77	**903**
	Bronze bellows (CuSn6)	Brass (CuZn39Pb3)	G1/4" female	78, 79	**905**
	Bronze bellows (CuSn6)	Brass (CuZn39Pb3)	G1/4" female	80, 81	**907**
	Stainless steel 1.4435	Brass (CuZn39Pb3)	G1/4" female	82, 83	**940**
	Bronze bellows (CuSn6)	Brass (CuZn39Pb3)	G1/2" male	72	**909**
	Bronze bellows (CuSn6)	Brass (CuZn39Pb3)	G1/2" male	73, 75	**902**
	Bronze bellows (CuSn6)	Brass (CuZn39Pb3)	G1/2" male	76, 77	**904**
	Bronze bellows (CuSn6)	Brass (CuZn39Pb3)	G1/2" male	78, 79	**906**
	Bronze bellows (CuSn6)	Brass (CuZn39Pb3)	G1/2" male	80, 81	**908**
	Stainless steel 1.4435	Brass (CuZn39Pb3)	G1/2" male	82, 83	**941**
	Bronze bellows (CuSn6)	Brass chemically nickel plated	G1/4" female	72	**950**
	Bronze bellows (CuSn6)	Brass chemically nickel plated	G1/4" female	73, 75	**951**
	Bronze bellows (CuSn6)	Brass chemically nickel plated	G1/4" female	76 ,77	**953**
	Bronze bellows (CuSn6)	Brass chemically nickel plated	G1/4" female	78, 79	**955**
	Bronze bellows (CuSn6)	Brass chemically nickel plated	G1/4" female	80, 81	**957**

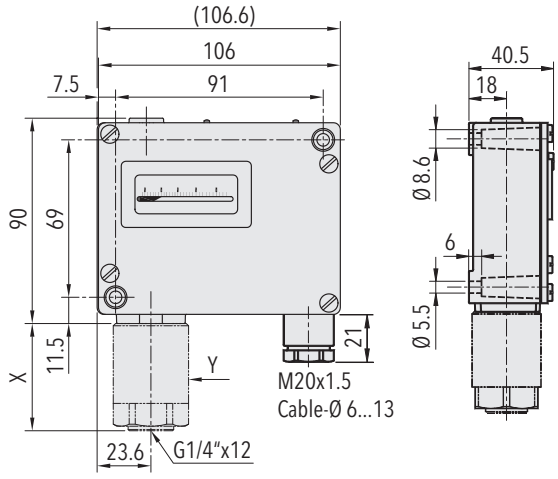
Sensor material	Sensor housing material	Thread	Range	
Bronze bellows (CuSn6)	Brass chemically nickel plated	G1/2" male	72	**959**
Bronze bellows (CuSn6)	Brass chemically nickel plated	G1/2" male	73, 75	**952**
Bronze bellows (CuSn6)	Brass chemically nickel plated	G1/2" male	76, 77	**954**
Bronze bellows (CuSn6)	Brass chemically nickel plated	G1/2" male	78, 79	**956**
Bronze bellows (CuSn6)	Brass chemically nickel plated	G1/2" male	80, 81	**958**
Stainless steel 1.4435	Brass, nickel-plated	G1/4" female	72	**800**
Stainless steel 1.4435	Brass, nickel-plated	G1/4" female	73, 75	**801**
Stainless steel 1.4435	Brass, nickel-plated	G1/4" female	76 ,77	**803**
Stainless steel 1.4435	Brass, nickel-plated	G1/4" female	78, 79	**805**
Stainless steel 1.4435	Brass, nickel-plated	G1/4" female	80, 81	**807**
Stainless steel 1.4435	Brass, nickel-plated	G1/4" female	82, 83	**840**
Stainless steel 1.4435	Brass, nickel-plated	G1/2" male	72	**809**
Stainless steel 1.4435	Brass, nickel-plated	G1/2" male	73, 75	**802**
Stainless steel 1.4435	Brass, nickel-plated	G1/2" male	76 ,77	**804**
Stainless steel 1.4435	Brass, nickel-plated	G1/2" male	78, 79	**806**
Stainless steel 1.4435	Brass, nickel-plated	G1/2" male	80, 81	**808**
Stainless steel 1.4435	Brass, nickel-plated	G1/2" male	82, 83	**841**

		XXX	XX	XX	XXX	XX	XX
Fixing	Direct on sensor or housing					00	
	With mounting bracket					31	
Accessories	Lead seal (manipulation protection)						16
	Screwed cable gland M20x1.5 (EN 50262)						07
	Screwed cable gland M24x1.5 (DIN89280)						27
	Screwed cable gland M18x1.5 (DIN89280)						40
	Without screwed cable gland						33
	Railway version IEC 61373, category 2						28
	Damping elements and snubber see data sheet H72258						

[1] Switching differential not adjustable
[2] Not suitable for applications under vibration

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



Specifications

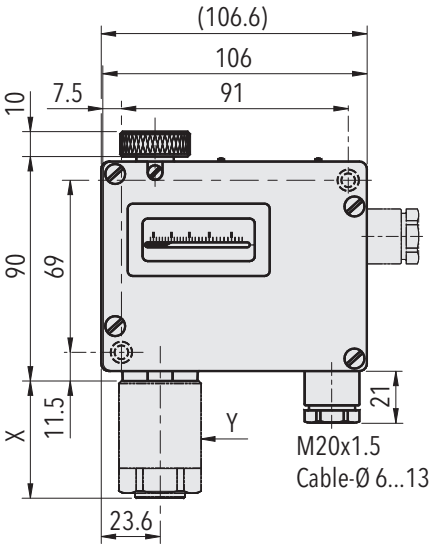
Accuracy	Repeatability	± 1.0 % FS typ.
	Scale accuracy typ.	± 2.0 % FS typ.
	Switching differential	See table
	Adjustment range switchpoint [1)]	10 % ... 90 % FS
Environmental conditions	Ambient temperature	-25°C ... +70°C
	Media temperature	-40°C ... +150°C
	Storage temperature	-25°C ... +85°C
	Protection	IP65
	Humidity	Max. 95% relative
	Vibration	Switch 23/26: 5...25 Hz: ±1.6 mm 25...100 Hz: 4 g Ranges 72, 73, 75, 5...50 Hz: 20 mm/sec.
	Shock	50 g / 11 ms
Mechanical Data	Sensor	See ordering information
	Housing	AlSi10Mg/ Epoxy coated
	Sealing	NBR
	Housing seal	EPDM 75 Sh
	Screwed cable gland	Brass nickel plated
	Male electrical plug	Polyamide (PA)
	Mounting torque	max. 25 Nm
	Installation	any position
	Weight	~ 710 g
Microswitch	Rating	See table
	Resistance of insulation	> 2 MΩ
	Dielectric strength	U ≤ 250V: 1.45 kV / U ≤ 500V: 2 kV terminal ground
	Life time (mechanical)	Microswitch 10/11: 20 Mio. cycles Microswitch 21: 0.5 Mio. cycles Microswitch 23/26: 0.3 Mio. cycles
Electrical connection	Electrical connections	Screw terminal
	Cable gland	M20x1.5 Cable-Ø 6...13 mm
	Terminal screw	3 x 1.5...4 mm²

[1)] Other adjustment ranges upon request

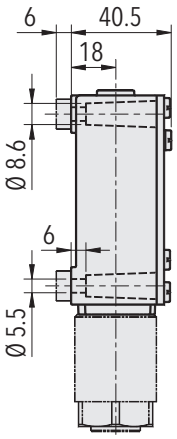
Additional information

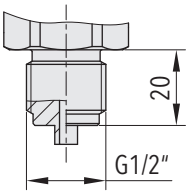
Documents	Data sheet	www.trafag.com/H72252
	Instructions	www.trafag.com/H71261

Dimensions

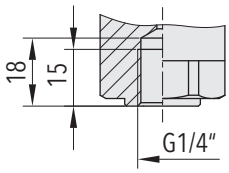


Dimension X and Y see data sheet H72271

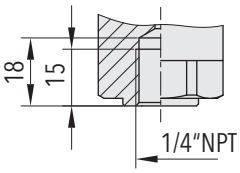




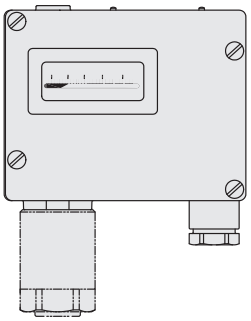
G1/2" male



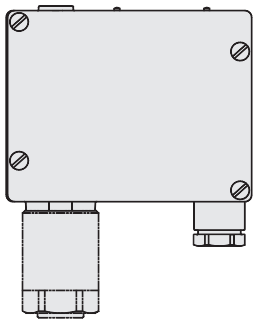
G1/4" female



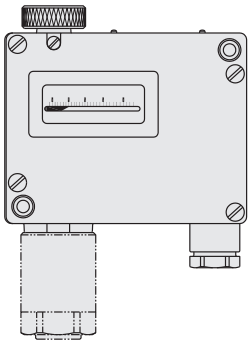
1/4"NPT female



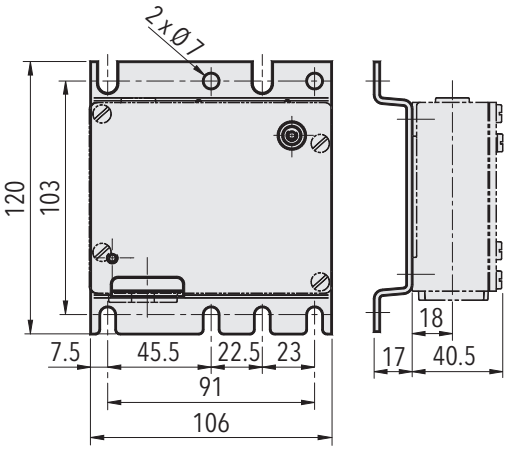
900.XX.XX.XXX.XX.XX



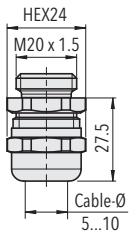
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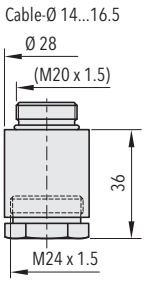
912.XX.XX.XXX.XX.XX



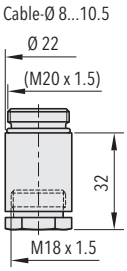
9XX.XX.XX.XXX.**31**.XX



9XX.XX.XX.XXX.XX.**07**
M20x1.5



9XX.XX.XX.XXX.XX.**27**
M24x1.5

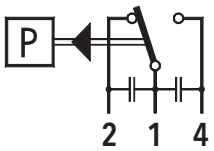


9XX.XX.XX.XXX.XX.**40**
M18x1.5

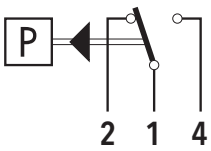
Switching differential typ. @ 25°C						
Measuring range bellows sensor	**[bar]**	**-0.9 ... 1.5 0.2 ... 1.6 0.2 ... 2.5**	**0 ... 4 0 ... 6**	**1 ... 10 1 ... 16**	**2 ... 25 4 ... 40**	**6 ... 60 10 ... 100**
Microswitch 10: Switching differential not adjustable	**[bar]**	0.03	0.08	0.2	0.5	1.5
Microswitch 11/21/23: Switching differential not adjustable	**[bar]**	0.1	0.2	0.4	1.0	3.0
Microswitch 26: Switching differential not adjustable	**[bar]**	0.1	0.3	0.8	2.0	5.0

Electrical data switch			
		Rating Resistive Load (Inductive Load)	
Type	**Features**	AC	DC
10	Small switching differential (not recommended for applications under vibrations)	125 V 10 (1.5) A 250 V 10 (1.25) A	250 V 0.2 (0.02) A 125 V 0.4 (0.03) A 30 V 2 (1) A 14 V 15 (2.5) A
11	Average switching differential, standard vibration resistance	125 V 15 (1.5) A 250 V 15 (1.25) A 500 V 10 (0.75) A	250 V 0.25 (0.03) A 125 V 0.5 (0.05) A 30 V 6 (1.5) A 14 V 15 (1.5) A
23	Average switching differential, increased vibration resistance	125 V 15 (1.5) A 250 V 15 (1.25) A 500 V 10 (0.75) A	250 V 0.3 (0.05) A 125 V 0.6 (0.1) A 30 V 15 (1.5) A 14 V 15 (1.5) A
26	Large switching differential, high vibration resistance	125 V 15 (1.5) A 250 V 15 (1.25) A 500 V 10 (0.75) A	250 V 0.3 (0.2) A 125 V 0.75 (0.4) A 30 V 15 (1.5) A 14 V 15 (1.5) A
21	With gold plated contacts, standard vibration resistance	24 V 0.1 (0.1) A 12 V 1.0 (1.0) A 5 V 2.0 (2.0) A	24 V 0.1 (0.1) A 12 V 1.0 (1.0) A 5 V 2.0 (2.0) A

Electrical connection



Switch 10/11/23



Switch 21/26

Instructions

90x / 91x / 94x Pressostat Pressure Switch

Datasheets

900/904/912
www.trafag.com/H72252

901/902/906
www.trafag.com/H72254

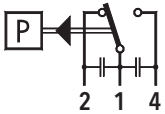
901/902/906
www.trafag.com/H72269

903/907/940/941
www.trafag.com/H72257

900/904/912
www.trafag.com/H72262

Technical Data

Electrical connection It is possible to connect the micro switch as a cut-in, cut-out or change-over switch.
Terminals 2 - 1: Opening at rise of pressure
Terminals 1 - 4: Closing at rise of pressure



IP-Protection IP65

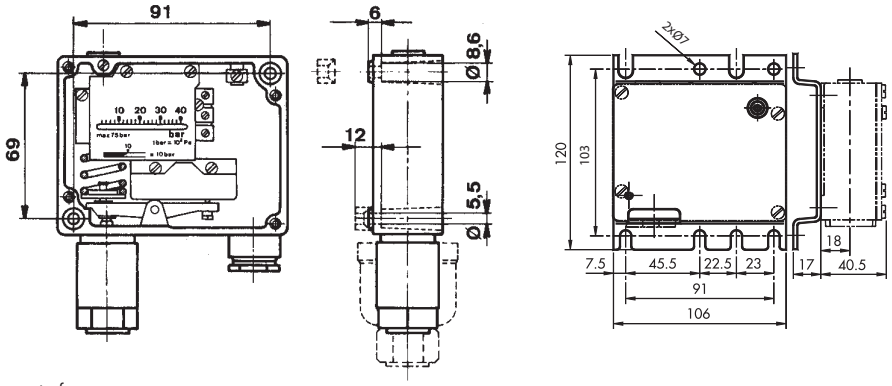
Torque moment pressure connection max. 25Nm

Ambient temperature -25°C ... +70°C (-13°F ... +158°F)

Media temperature -40°C ... +150°C (-40°F ... +300°F)
For types: 94X.XXXX.701/703/705/707/709/711/713/715/723/725
-15°C ... + 150°C (+5°F ... + 300°F)
For types: 94X.XXXX.700/702/704/706/708/710/712/714/722/724
-30°C ... + 100°C (-22°F ... + 212°F)

Storage temperature -25°C ... +85°C (-13°F ... +185°F)

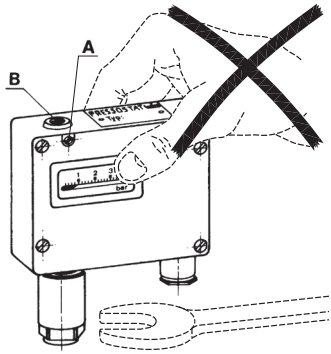
Dimensions



We reserve the right to make alterations as technical progress may warrant. ***H71261 m*** *Trafag AG 08/2023*

Installation

To avoid altering the sensing element adjustments, do not hold the housing of the pressure switch while tightening the pressure connection. (Fig. 1).

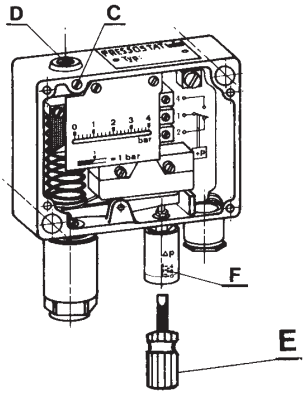


Setpoint adjustment

The dial accuracy is ±2 % of the range.
Every unit is individually calibrated,
so a manometer verification is not necessary.

Type with invariable differential

1. Loosen lock screw (A)
2. Adjust **upper** switching point with range spindle (B). The lower switching point results from the fixed switching differential
3. Tighten lock screw (A)



Type with variable differential

1. Loosen lock screw (C)
2. Adjust **lower** switching point with range spindle (D)
3. Tighten lock screw (C)
4. Adjust upper switching point with a screw driver at differential adjusting screw (E)

By turning clockwise the differential gets enlarged, resp. the upper switching point is displaced upwards. The desired differential is adjusted by way of the dial (F) and of the diagram (G) glued to the inside of the housing cover.

