

# DIFFERENTIAL PRESSURE 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

## 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		

02/2017

Data sheet H72253q

Subject to change

## Ordering information/type code

		XXX	XX	XX	XXX	XX	XX
<b>Custom build code</b>	With display and adjusting screw	920					
	Without display, with adjusting screw	924					
	With display and adjusting knob	932					
<b>Microswitch</b>	Small switching differential, standard vibration resistance <sup>1) 2)</sup>		10				
	Average switching differential, standard vibration resistance <sup>1)</sup>		11				
	Average switching differential, increased vibration resistance  <sup>1)</sup>		23				
	Large switching differential, high vibration resistance  <sup>1)</sup>		26				
	With gold plated contacts, standard vibration resistance <sup>1)</sup>		21				
<b>Range</b>	<b>Range [bar]</b>	<b>Differential pressure [bar]</b>	<b>Over pressure [bar]</b>	<b>Burst pressure [bar]</b>			
	-1 ... 6	-0.6 ... 3.4	12	26		74	
	-1 ... 6	0 ... 4	12	26		76	
	-1 ... 8	0 ... 6	12	26		77	
	-1 ... 12	1 ... 10	24	36		78	
	-1 ... 18	1 ... 16	24	36		79	
<b>Sensor</b>	<b>Sensor material</b>	<b>Sensor housing material</b>	<b>Range</b>	<b>Thread</b>			
	Belongs: 1.4435, medium contact. parts 1.4435	Brass nickel plated	74	G1/4" female		830	
	Belongs: 1.4435, medium contact. parts 1.4435	Brass nickel plated	74	G1/8" female		831	
	Belongs: 1.4435, medium contact. parts 1.4435	Brass nickel plated	74	G1/2" male		832	
	Belongs: 1.4435, medium contact. parts 1.4435	Brass nickel plated	76, 77	G1/8" female		833	
	Belongs: 1.4435, medium contact. parts 1.4435	Brass nickel plated	76, 77	G1/2" male		834	
	Belongs: 1.4435, medium contact. parts 1.4435	Brass nickel plated	76, 77	G1/4" female		837	
	Belongs: 1.4435, medium contact. parts 1.4435	Brass nickel plated	78, 79	G1/8" female		835	
	Belongs: 1.4435, medium contact. parts 1.4435	Brass nickel plated	78, 79	G1/2" male		836	
	Belongs: 1.4435, medium contact. parts 1.4435	Brass nickel plated	78, 79	G1/4" female		838	
	Bronze	Brass	74	G1/4" female		930	
	Bronze	Brass	74	G1/8" female		931	
	Bronze	Brass	74	G1/2" male		932	
	Bronze	Brass	76, 77	G1/8" female		933	
	Bronze	Brass	76, 77	G1/2" male		934	
	Bronze	Brass	76, 77	G1/4" female		937	
	Bronze	Brass	78, 79	G1/8" female		935	
	Bronze	Brass	78, 79	G1/2" male		936	
	Bronze	Brass	78, 79	G1/4" female		938	
	Bronze	Brass chemically nickel plated	74	G1/4" female		980	
	Bronze	Brass chemically nickel plated	74	G1/8" female		981	
	Bronze	Brass chemically nickel plated	74	G1/2" male		982	
	Bronze	Brass chemically nickel plated	76, 77	G1/8" female		983	
	Bronze	Brass chemically nickel plated	76, 77	G1/2" male		984	
	Bronze	Brass chemically nickel plated	76, 77	G1/4" female		987	
	Bronze	Brass chemically nickel plated	78, 79	G1/8" female		985	
	Bronze	Brass chemically nickel plated	78, 79	G1/2" male		986	
	Bronze	Brass chemically nickel plated	78, 79	G1/4" female		988	
<b>Fixing</b>	Direct on sensor or housing					00	
	By mounting bracket					31	

XXX XX XX XXX XX XX

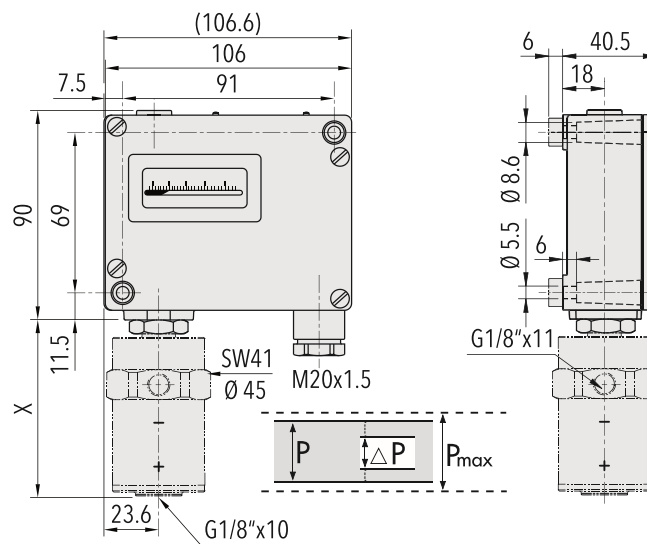
Accessories	Lead seal (manipulation protection)	16
	Screwed cable gland M20x1.5 (EN50262)	07
	Screwed cable gland M24x1.5 (DIN89280)	27
	Screwed cable gland M18x1.5 (DIN89280)	40
	Adapter G1/8" male - G1/2" male, Brass	A6
	Adapter G1/8" male - G1/2" male, Brass nickel plated	B6
	Adapter G1/8" male - G1/2" male, Stainless steel 1.4435	D6
	Adapter G1/8" male - G1/4" female, Brass	A5
	Adapter G1/8" male - G1/4" female, Brass nickel plated	B5
	Adapter G1/8" male - G1/4" female, Stainless steel 1.4435	D5
	Damping elements and snubber see data sheet H72258	

<sup>1)</sup> Switching differential not adjustable

<sup>2)</sup> Not suitable for applications under vibration

## 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

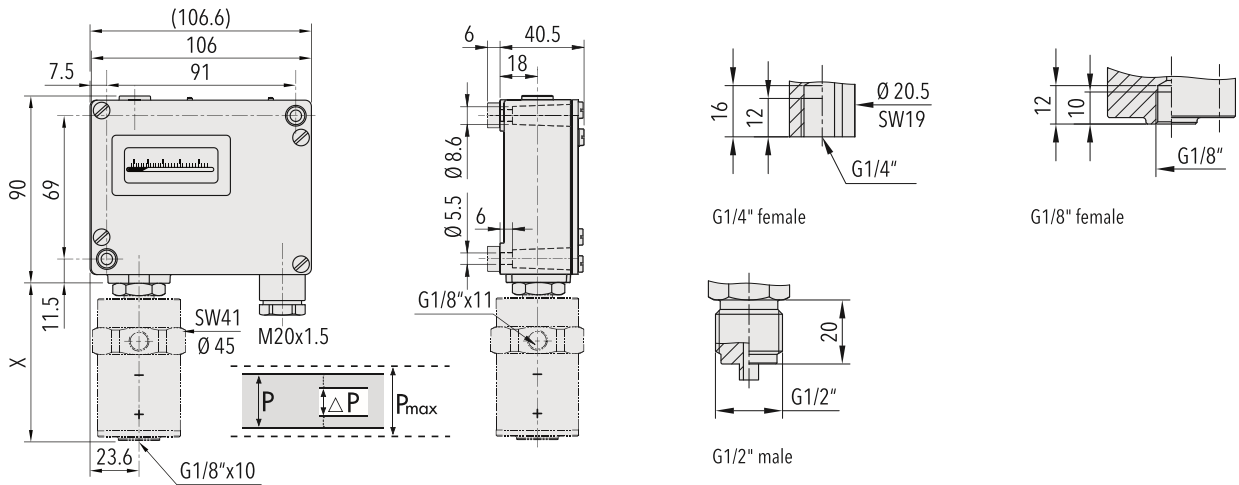


Specifications		
<b>Accuracy</b>	Repeatability	± 1.0 % FS typ.
	Scale accuracy typ.	± 2.0 % FS typ.
	Switching differential	See table
	Adjustment range switchpoint <sup>1)</sup>	10% ... 90% FS
<b>Environmental conditions</b>	Ambient temperature	-25°C ... +70°C
	Media temperature	-40°C ... +150°C
	Storage temperature	-25°C ... +85°C
	Protection	IP65
	Humidity	Max. 95 % relative
	Vibration	Switch 23/26: 5...25 Hz: ±1.6 mm 25...100 Hz: 4g
	Shock	50g/ 11ms
<b>Mechanical Data</b>	Sensor	See ordering information
	Housing	AlSi10Mg/ Epoxy coated
	Sealing	NBR
	Screwed cable gland	Brass nickel plated
	Mounting torque	Max. 25 Nm
	Installation	any position
	Weight	~ 610 g
<b>Microswitch</b>	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
<b>Electrical connection</b>	Electrical connections	Terminal screw
	Cable gland	M20x1.5 Cable-Ø 6...13 mm
	Terminal screw	3 x 1.5...4 mm²

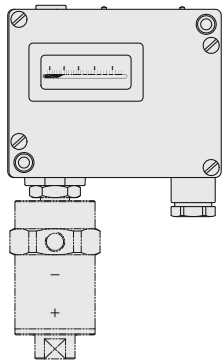
<sup>1)</sup> Other adjustment ranges upon request

Additional information		
<b>Documents</b>	Data sheet	<a href="http://www.trafag.com/H72253">www.trafag.com/H72253</a>
	Instructions	<a href="http://www.trafag.com/H73256">www.trafag.com/H73256</a>
	Flyer	<a href="http://www.trafag.com/H70914">www.trafag.com/H70914</a>

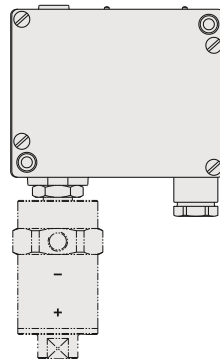
## Dimensions



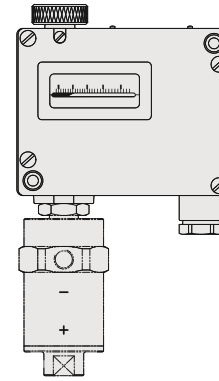
Dimension X and Y see data sheet H72271



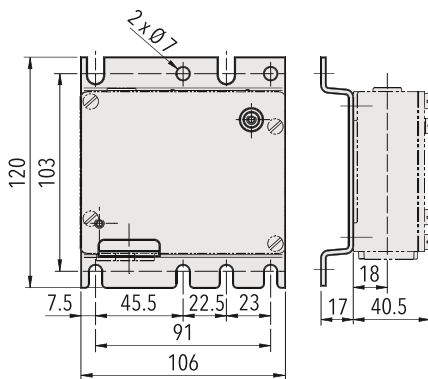
920.XX.XX.XXX.XX.XX



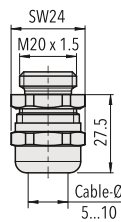
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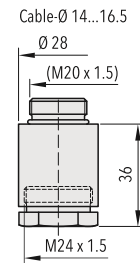
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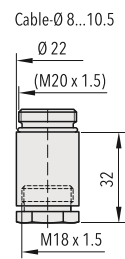
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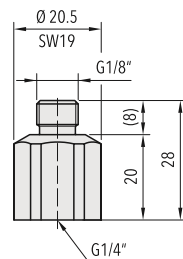
9XX.XX.XX.XXX.XX.07  
M20x1.5



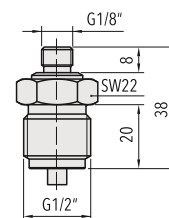
9XX.XX.XX.XXX.XX.27  
M24x1.5



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



**A5 / B5 / D5**





A6 / B6 / D6

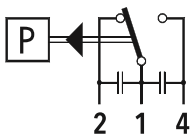
## Switching differential typ. @ 25°C

Range of piston sensor	[bar]	-1 ... 6 -1 ... 8	-1 ... 12 -1 ... 18
<b>Microswitch 10</b> Switching differential (not adjustable)	[bar]	0.08	0.2
<b>Microswitch 11/21/23</b> Switching differential (not adjustable)	[bar]	0.16	0.4
<b>Microswitch 26</b> Switching differential (not adjustable)	[bar]	0.25	0.5

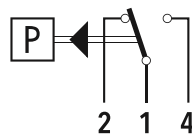
## Electrical data switch

		Rating	
		Resistive Load (Inductive Load)	
Type	Features	AC	DC
<b>10</b>	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
<b>11</b>	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
<b>23</b> 	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
<b>26</b> 	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
<b>21</b>	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