

# 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



08/2024

Data sheet H72253s

Technical Data			
Measuring principle	Bellows	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: Type 2.B.H
Switching differential	Not adjustable		

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>					
	Bellows: 1.4435, medium contact. parts 1.4435	Brass nickel plated	74	G1/4" female				830	
	Bellows: 1.4435, medium contact. parts 1.4435	Brass nickel plated	74	G1/8" female				831	
	Bellows: 1.4435, medium contact. parts 1.4435	Brass nickel plated	74	G1/2" male				832	
	Bellows: 1.4435, medium contact. parts 1.4435	Brass nickel plated	76, 77	G1/8" female				833	
	Bellows: 1.4435, medium contact. parts 1.4435	Brass nickel plated	76, 77	G1/2" male				834	
	Bellows: 1.4435, medium contact. parts 1.4435	Brass nickel plated	76, 77	G1/4" female				837	
	Bellows: 1.4435, medium contact. parts 1.4435	Brass nickel plated	78, 79	G1/8" female				835	
	Bellows: 1.4435, medium contact. parts 1.4435	Brass nickel plated	78, 79	G1/2" male				836	
	Bellows: 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	

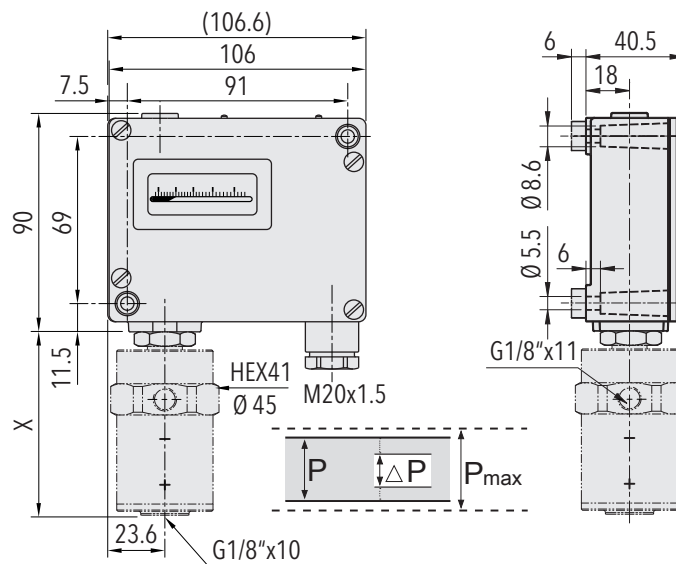
Accessories		
Lead seal (manipulation protection)		16
Screwed cable gland M20x1.5 (EN50262)		07
Screwed cable gland M24x1.5 (DIN89280)		27
Screwed cable gland M18x1.5 (DIN89280)		40
Adapter G1/8" male - G1/2" male, Brass		A6
Adapter G1/8" male - G1/2" male, Brass nickel plated		B6
Adapter G1/8" male - 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

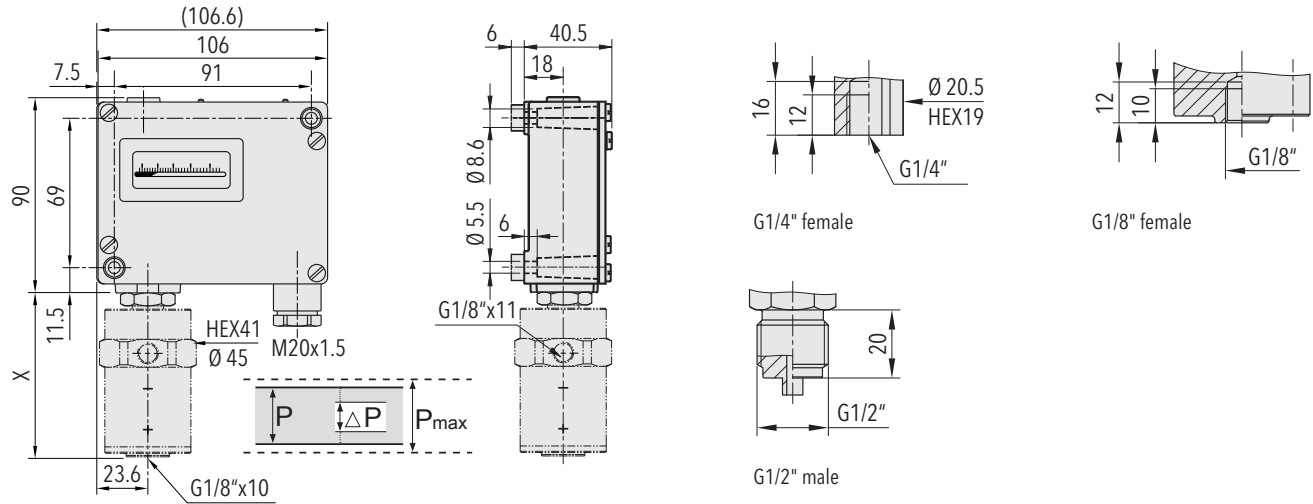


Specifications		
<b>Accuracy</b>	Repeatability	± 1.0 % FS typ.
	Scale accuracy typ.	± 2.0 % FS typ.
	Switching differential	See table
	Adjustment range switch point <sup>1)</sup>	0 ... 100% Differential pressure
<b>Environmental conditions</b>	Ambient temperature	-25°C ... +70°C
	Media temperature	-40°C ... +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: 4 g
	Shock	50 g / 11 ms
<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	Screw terminal
	Cable gland	M20x1.5 Cable-Ø 6...13 mm
	Terminal screw	3 x 1.5...4 mm <sup>2</sup>

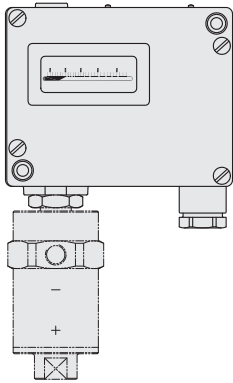
<sup>1)</sup> Other adjustment ranges upon request

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>

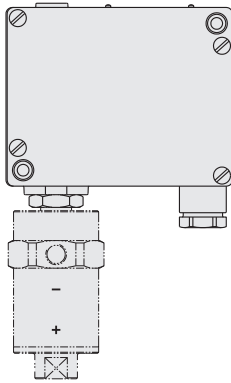
## Dimensions



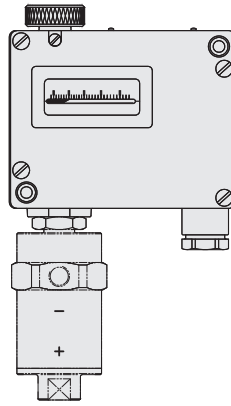
Dimension X and Y see data sheet H72271



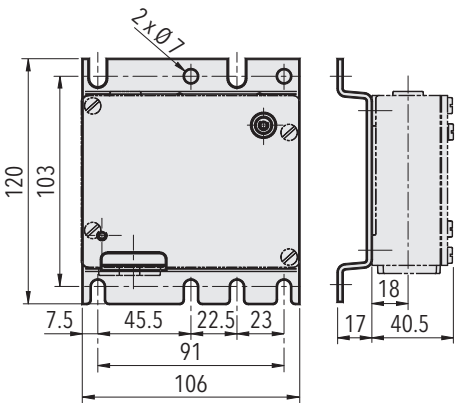
920.XX.XX.XXX.XX.XX



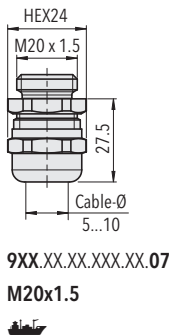
924.XX.XX.XXX.XX.XX



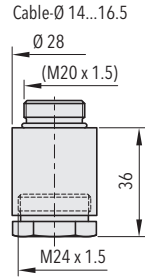
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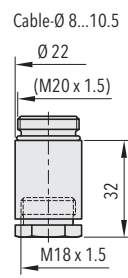
9XX.XX.XX.XXX.31.XX



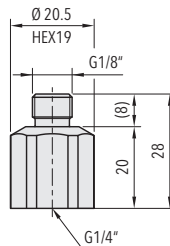
9XX.XX.XX.XXX.XX.07  
M20x1.5



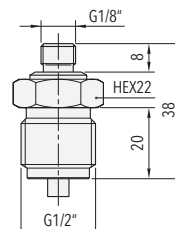
9XX.XX.XX.XXX.XX.27  
M24x1.5



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



A5 / B5 / D5





A6 / B6 / D6

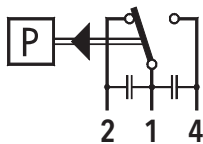
## Switching differential typ. @ 25°C

<b>Range of piston sensor</b>	[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

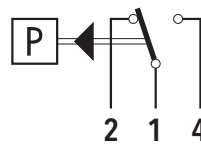
## Electrical data switch

Type	Features	Rating	
		Resistive Load (Inductive Load)	
		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