

# 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



09/2014

Data sheet H722530

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	Floating change-over contact	Approval	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA EN60730-1/ EN60730-2-6: Typ 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>	Fixed small switching differential, standard vibration resistance <sup>1) 2)</sup>		10				
	Fixed average switching differential, standard vibration resistance <sup>1)</sup>		11				
	Fixed average switching differential, improved vibration resistance  <sup>1)</sup>		23				
	Fixed large switching differential, high vibration resistance  <sup>1)</sup>		26				
	Fixed average switching differential, 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

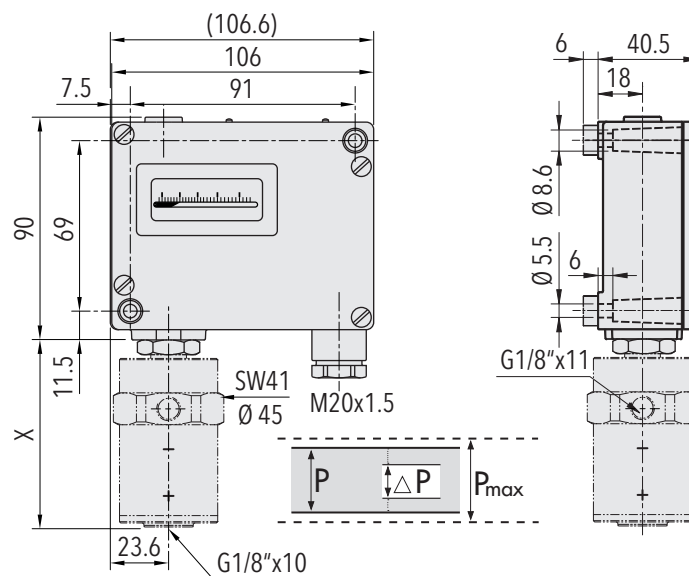
Accessories		
Lead seal (manipulation protection)		16
Screwed cable gland M20x1.5 (EN50262)		07
Screwed cable gland M24x1.5 (DIN89280)		27
Screwed cable gland M18x1.5 (DIN89280)		40
Adapter G1/8" male - G1/2" male, Brass		A6
Adapter G1/8" male - G1/2" male, Brass nickel plated		B6
Adapter G1/8" male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

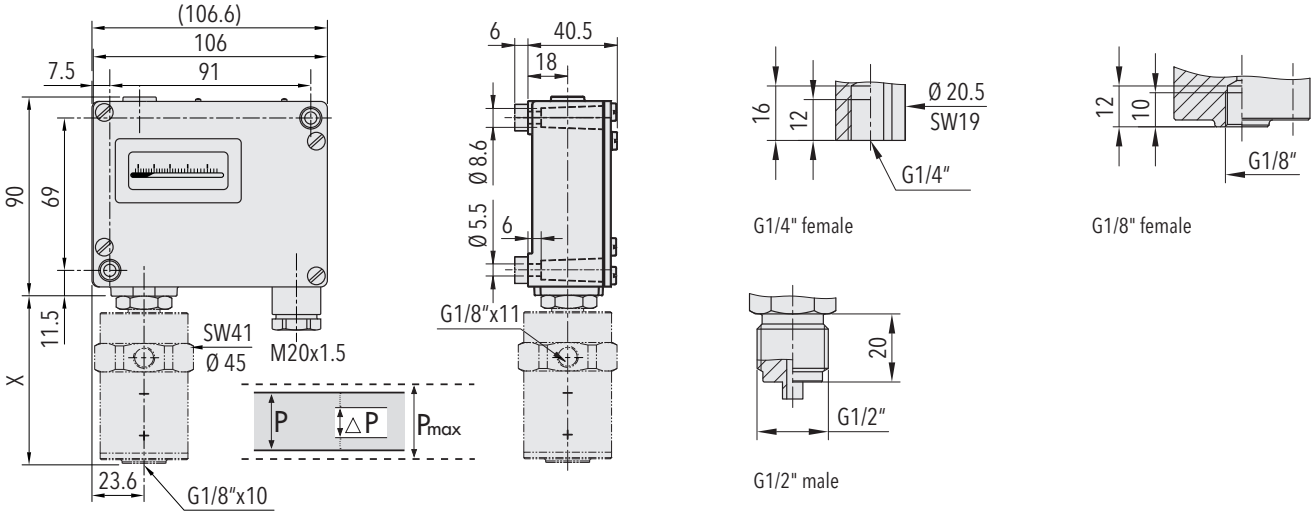
Product No.	Type Code	Pressure range [bar]	Differential pressure [bar]	Over pressure max. [bar]	Switching differential [bar]	Length X [mm]
PD3.4	920 2374 931	-1 ... +6	-0.6 ... +3.4	12	0.16 (fix)	77
PD6	920 2377 933	-1 ... +8	0 ... 6	12	0.16 (fix)	77
PD16	920 2379 935	-1 ... 18	1 ... 16	24	0.4 (fix)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



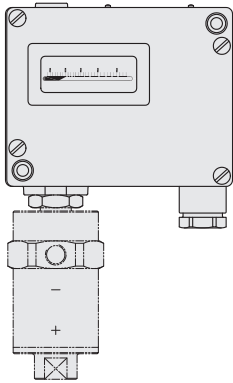
Specifications		
<b>Accuracy</b>	Repeatability	± 1.0 % FS typ.
	Scale accuracy typ.	± 2.0 % FS typ.
	Switching differential	See table
<b>Environmental conditions</b>	Ambient temperature	-25°C ... +70°C
	Media temperature	-40°C ... +150°C
	Storage temperature	-25°C ... +85°C
	Protection	IP65
	Humidity	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 mm <sup>2</sup>

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>

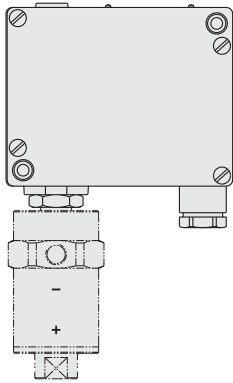
## Dimensions



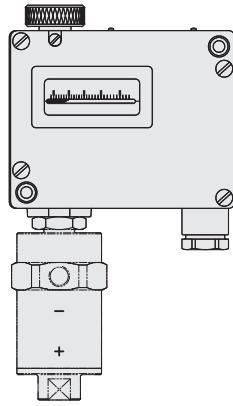
Dimension X and Y see data sheet H72271



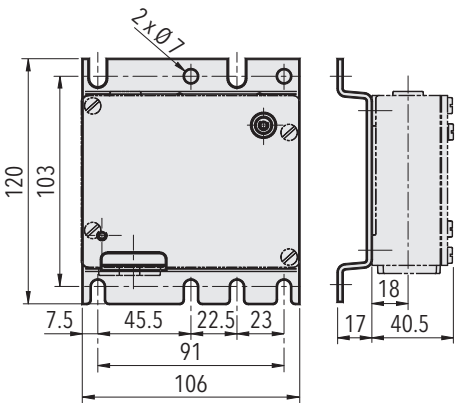
920.XX.XX.XXX.XX.XX



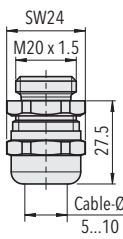
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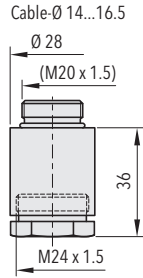
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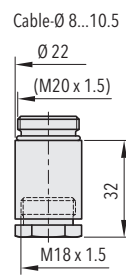
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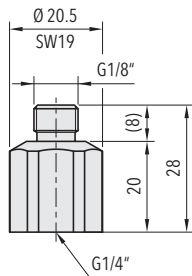
9XX.XX.XX.XXX.XX.07  
M20x1.5



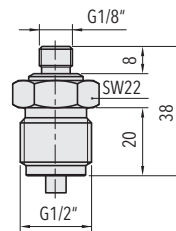
9XX.XX.XX.XXX.XX.27  
M24x1.5



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



A5 / B5 / D5





A6 / B6 / D6

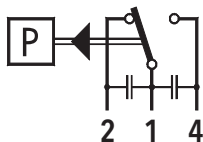
## Switching differential typ.

<b>Range of piston sensor</b>	[bar]	-1 ... 6 -1 ... 8	-1 ... 12 -1 ... 18
<b>P max.</b>	[bar]	12	24
<b>Microswitch 10</b> Switching differential fix, not adjustable	[bar]	0.08	0.2
<b>Microswitch 11/21/23</b> Switching differential fix, not adjustable	[bar]	0.16	0.4
<b>Microswitch 26</b> Switching differential fix, not adjustable	[bar]	0.25	0.5

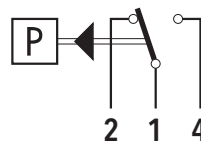
## Electrical data switch

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	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> 	Improved vibration resistance; average switching differential	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> 	High vibration resistance; average switching differential	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>	Gold plated contacts	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