

# Relative and absolute pressure transmitter type 527 for shipbuilding

Pressure range  
0 ... 1 – 60 bar



The compact type 527 pressure transmitter is based upon the well proven ceramic technology developed by Huba Control over 20 years ago.

These transmitters are suitable for applications across a broad spectrum of industries and shipbuilding.

- Compact, rugged construction
- Negligible temperature influence on accuracy
- Certified for shipbuilding with:
  - Germanischer Lloyd
  - American Bureau of Shipping
  - Bureau Veritas
  - Det Norske Veritas
  - Lloyd's Register

## Technical overview

### Pressure range

Relative	0 – 60 bar
Absolute	0 ... 1 – 16 bar

### Operating conditions

Medium		Liquids and gases
Temperature	Medium	FPM -15 ... +125 °C
		EPDM -40 ... +125 °C
		NBR -20 ... +100 °C
		Ambient -30 ... +85 °C
	Storage	-50 ... +100 °C
Tolerable overload / Rupture pressure	≤ 4 bar	3.0 x fs
	> 4 bar	2.5 x fs

### Materials

Cover		Stainless steel 1.4404 / AISI 316L
Plug accommodation		Polyarylamide 50% GF V0
Materials in contact with medium	Pressure connection	Stainless steel 1.4404 / AISI 316L
	Sensor	Ceramic Al <sub>2</sub> O <sub>3</sub> (96%)
	Sealing material	FPM, EPDM, NBR

### Electrical overview

	Output	Power supply	Load	Current consumption
2 wire	4 ... 20 mA	7 ... 33 VDC	$< \frac{\text{supply voltage} - 7 \text{ V}}{0.02 \text{ A}}$ [Ohm]	< 23 mA
2 wire (Ex)	4 ... 20 mA	10 ... 30 VDC	$< \frac{\text{supply voltage} - 10 \text{ V}}{0.02 \text{ A}}$ [Ohm]	< 23 mA
3 wire	0 ... 10 V	12 ... 33 VDC	>10 kOhm / < 100 nF	< 7 mA
Polarity reversal protection	Short circuit proof and protected against polarity reversal. Each connection is protected against crossover up to max. supply voltage.			

### Protection class

Protection class III
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### Dynamic response

Response time	< 2 ms, 1 ms typ.
Load cycle	< 100 Hz

### Protection standard

Connector DIN EN 175301-803-A	IP 65
Swift connector, Connector M12x1	IP 67

### Electrical connection

Swift connector with cable 1.5 m (PVC spec.)
Connector DIN EN 175301-803-A
Connector M12x1

### Pressure connection

Inside thread	7/16 - 20 UNF	
	1/2 - 14 NPT	
Outside thread	7/16 - 20 UNF	
	1/4 -18 NPT	
	G 1/4	sealed at back DIN 3852 form E with Profile seal ring in FPM spec. (-30 ... +135 °C)
	G 1/2	sealed at back and manometer (combi) with Profile seal ring in FPM spec. (-30 ... +135 °C)
	M20x1.5	
	G 1/2	sealed at front

### Installation arrangement

Unrestricted
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### Tests / Admissions

Electromagnetic compatibility	CE conformity acc. EN 61326-2-3
Shock acc. IEC IEC 68-2-27	100 g, 11 ms half sine wave, all 6 directions, free fall from 1 m on concrete (6x)
Constant shock acc. IEC 68-2-29	40 g for 6 ms, 1000x all 3 directions
Vibration acc. IEC 68-2-6	20 g, 15 ... 2000 Hz, 15 ... 25 Hz with amplitude ± 15 mm, 1 Octave/min. all 3 directions, 50 constant load
Shipbuilding	Germanischer Lloyd
	American Bureau of Shipping
	Bureau Veritas
	Det Norske Veritas
	Lloyd's Register

### Protection against explosion

Intrinsic safety «i» (with current output only)	Ex II 1/2 G Ex ia IIC T4 Ga/Gb Ex II 1/2 D Ex ia IIC T125°C Da/Db
EC type examination certificate	SEV 10 ATEX 0145
Connection to certified intrinsically safe resistive circuits with maximum values	Ui = 30 VDC; Ii = 100 mA = Pi = 0.75 W
Effective internal inductance and capacitance for versions with plugs complying with EN 175301-803 or M12x1	Li = 0 nH; Ci = 0 nF

### Weight

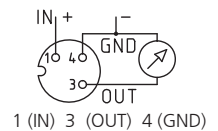
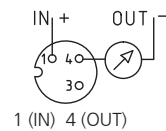
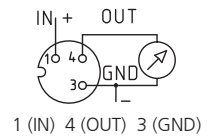
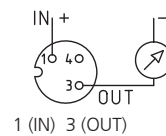
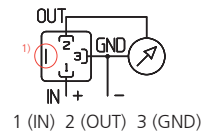
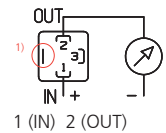
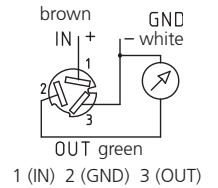
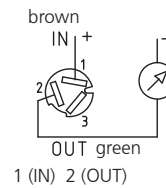
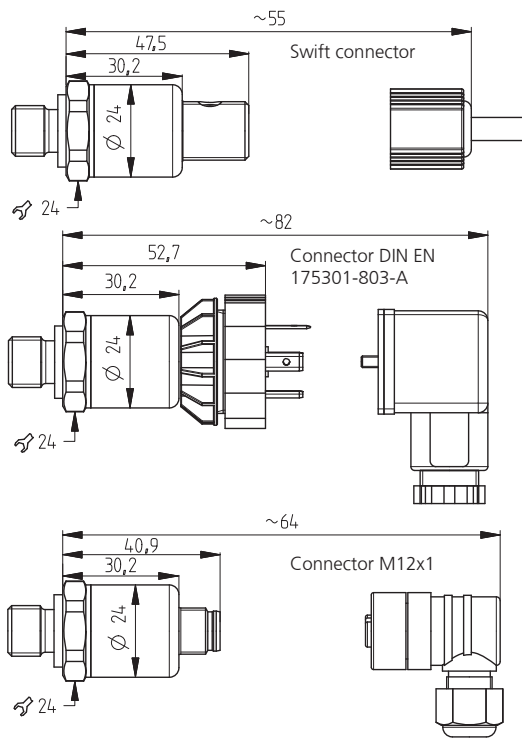
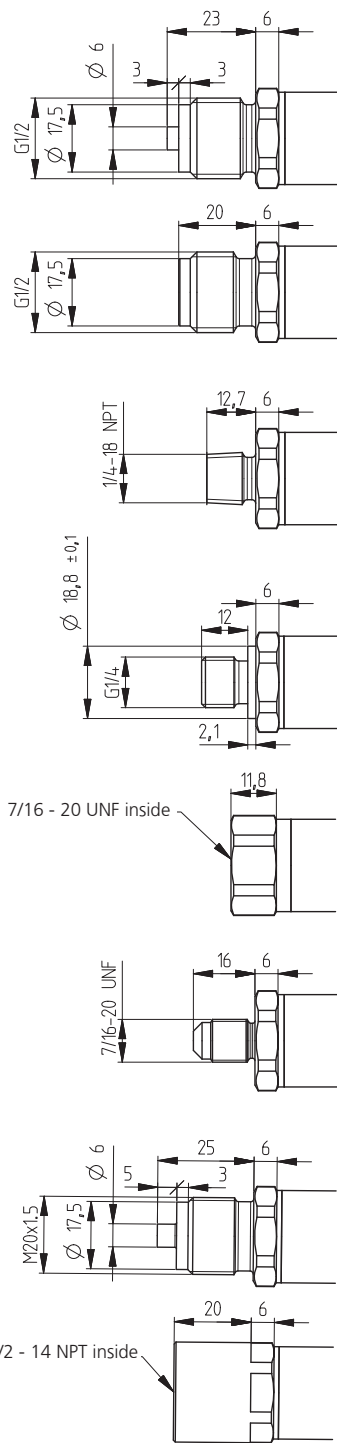
~ 90 g
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### Packaging (Please state on order)

Single packaging in cardboard	accessories integrated
Multiple packaging in cardboard (25 pcs)	







**Ex**

Device design with explosion protection: 4 ... 20 mA  
The grounding connection is conductively connected to the transmitter housing.

<p>Connector DIN EN 175301-803-A (Ex)</p> <p>1 (IN) 2 (OUT)</p>	<p>Connector M12x1 (Ex)</p> <p>1 (IN) 3 (OUT) 4 (GND)</p>
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<sup>1)</sup> Not connected with transmitter housing



FOR FINE PRESSURE AND FLOW MEASUREMENT

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