

# PICOTRANS

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature. The NPN pressure transmitter offers reliable and accurate pressure measurement over a wide temperature range. Its excellent long-term stability is based on the leading thin-film-on-steel sensor technology from Trafag. Its robust design and the block design with its optional flange connection makes the NPN the perfect choice for demanding applications such as marine and rail industries.



## Applications

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



## Features

- Compact design
- Flange connection (PICO family)
- High vibration resistance
- Good temperature resistance
- Completely welded steel sensor system without additional seals

12/2022

Data sheet H72313t

## Technical Data

Measuring principle	Thin-film-on-steel	Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.
Measuring range	0 ... 2.5 to 0 ... 250 bar	Media temperature	-40°C ... +100°C
Output signal	4 ... 20 mA	Ambient temperature	-40°C ... +100°C
NLH @ 25°C (BSL) typ.	± 0.2 % FS typ. ± 0.1 % FS typ.	Approval / conformity	ABS, BV, CCS, DNV-GL, KRS, LRS, NKK, RINA, RMRS

Subject to change

## Ordering information/type code

				8264 . XX	XX	XX	XX	XX	XX
<b>Measuring range <sup>1)</sup></b>	<b>Pressure measurement range [bar]</b>	<b>Over pressure [bar]</b>	<b>Burst pressure [bar]</b>						
	0 ... 2.5	5	100	75					
	0 ... 4	8	100	76					
	0 ... 6	12	100	77					
	0 ... 10	20	200	78					
	0 ... 16	32	200	79					
	0 ... 25	50	300	80					
	0 ... 40	80	300	81					
	0 ... 60	120	500	82					
	0 ... 100	200	500	83					
	0 ... 160 <sup>2)</sup>	320	1000	85					
	0 ... 250 <sup>2)</sup>	500	1000	74					
<b>Sensor</b>	Relative pressure, accuracy: 0.3 %				23				
	Relative pressure, accuracy: 0.5 %				25				
<b>Pressure connection</b>	G1/4" female					10			
	M10x1 female					17			
	G1/8" female					18			
<b>Electrical connection</b>	Male electrical connector EN 175301-803-A (DIN 43650-A), Mat. PA						04		
	Cable with shield: Material: FDR 25 (Raychem) 4 x 0.5 mm <sup>2</sup> (cable length see "Accessories")						78		
	Cable with shield: Material: ETFE, 3 x 0.75 mm <sup>2</sup> (cable length see "Accessories") <sup>3)</sup>						89		
<b>Output signal</b>	<b>Signal output</b>	<b>Load resistance</b>	<b>I (supply)</b>	<b>U (supply)</b>					
	4 ... 20 mA	(U <sub>supply</sub> -9 V) / 20 mA		24 (9 ... 32) VDC					19
<b>Accessories</b>	Flange connection with O-Ring								41
	Pressure peak damping element ø 1.0 mm								40
	Pressure peak damping element ø 0.3 mm								43
	Pressure peak damping element ø 0.5 mm								45
	Welsh plug G1/8"								57
	Welsh plug G1/4"								74
	Female electrical plug EN 175301-803-A (DIN43650-A)/NBR, -40°C ... +90°C, for cable diameter 4 ... 9 mm, flammability standard UL94-V0								46
	Female electrical plug EN 175301-803-A (DIN 43650-A)/silicone, -40°C ... +125°C, for cable diameter 4 ... 9 mm, flammability standard UL94-V0								56
	Female electrical plug EN 175301-803-A (DIN43650-A)/NBR, -40°C ... +90°C, for cable diameter 4 ... 9.5 mm, flammability standard UL94-V2 <sup>4)</sup>								58
	Elbow connector female: 90° EN 175301-803-A (DIN43650-A)/NBR, -40°C ... +90°C, for cable diameter 6.5 ... 9.5 mm, flammability standard UL94-V0 <sup>4)</sup>								55
	Fixing set								V3
	Special electrical connection: Pin 1 +, Pin 2 - (only for output signal 4 ... 20 mA and male electrical connector EN175301-803-A/ DIN43650-A)								92
	Cable length 1.5 m								1M
	Cable length 3.0 m								3M
	Cable length 5.0 m								5M
	Cable length 6.0 m								6M
	Cable length 8.0 m								7M
	Cable length 10 m								8M
	Cable length 12 m								9M

<sup>1)</sup> Extended overpressure as well as customized pressure ranges upon request

<sup>2)</sup> Only for pressure connection G1/4"

<sup>3)</sup> Only with ship approval DNV-GL, RINA

<sup>4)</sup> Without ship approval DNV-GL

## Standard products (extra short lead time)

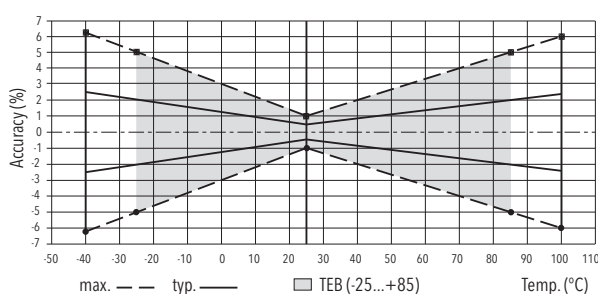
Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Signal output	Supply [VDC]
NPN4.OA4	8264 76 2510 04 0000 0000 19 46 V3	0 ... 4	10	4 ... 20 mA	24 (9 ... 32)
NPN6.OA4	8264 77 2510 04 0000 0000 19 46 V3	0 ... 6	15	4 ... 20 mA	24 (9 ... 32)
NPN10.OA4	8264 78 2510 04 0000 0000 19 46 V3	0 ... 10	20	4 ... 20 mA	24 (9 ... 32)
NPN16.OA4	8264 79 2510 04 0000 0000 19 46 V3	0 ... 16	32	4 ... 20 mA	24 (9 ... 32)
NPN25.OA4	8264 80 2510 04 0000 0000 19 46 V3	0 ... 25	50	4 ... 20 mA	24 (9 ... 32)
NPN40.OA4	8264 81 2510 04 0000 0000 19 46 V3	0 ... 40	80	4 ... 20 mA	24 (9 ... 32)
NPN4.OAF4	8264 76 2510 04 0000 0000 19 41 46 74 V3	0 ... 4	10	4 ... 20 mA	24 (9 ... 32)
NPN6.OAF4	8264 77 2510 04 0000 0000 19 41 46 74 V3	0 ... 6	15	4 ... 20 mA	24 (9 ... 32)
NPN10.OAF4	8264 78 2510 04 0000 0000 19 41 46 74 V3	0 ... 10	20	4 ... 20 mA	24 (9 ... 32)
NPN16.OAF4	8264 79 2510 04 0000 0000 19 41 46 74 V3	0 ... 16	32	4 ... 20 mA	24 (9 ... 32)
NPN25.OAF4	8264 80 2510 04 0000 0000 19 41 46 74 V3	0 ... 25	50	4 ... 20 mA	24 (9 ... 32)
NPN40.OAF4	8264 81 2510 04 0000 0000 19 41 46 74 V3	0 ... 40	80	4 ... 20 mA	24 (9 ... 32)

Specifications		
<b>Electrical Data</b>	Output / supply voltage	4...20 mA: 24 (9...32) VDC
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
<b>Environmental conditions</b>	Media temperature	-40°C ... +100°C
	Ambient temperature	-40°C ... +100°C
	Protection <sup>1)</sup>	Electrical connection 04: IP65 Electrical connection 78: IP69K
	Humidity	Max. 95 % relative
	Vibration	Electrical connection 04/accessory 55: 10 g (50...2000 Hz) Electrical connection 04: 15 g (50...2000 Hz) Electrical connection 78: 15 g RMS
	Shock	50 g / 3 ms
<b>EMC Protection</b>	Emission	EN/IEC 61000-6-4
	Immunity	EN/IEC 61000-6-2
<b>Mechanical Data</b>	Sensor (wetted parts)	1.4542 (AISI630)
	Pressure connection (wetted parts)	1.4542 (AISI630)
	Housing	1.4301 (AISI304)
	Sealing	NBR
	Male electrical connector	See ordering information
	Weight	~ 190...220 g
	Mounting torque	See accessories

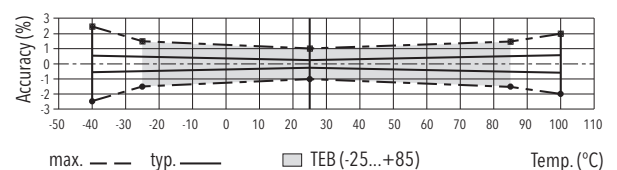
<sup>1)</sup> Electrical connection 04: Provided female connector is mounted according to instructions

Accuracy		Measuring accuracy 0.5 % Ordering No. 25	Measuring accuracy 0.3 % Ordering No. 23
TEB @ -25 ... +85°C	[% FS typ.]	± 2.0	± 0.5
Accuracy @ +25°C	[% FS typ.]	± 0.5	± 0.3
NLH @ +25°C (BSL)	[% FS typ.]	± 0.2	± 0.1
TC zero point and span	[% FS/K typ.]	± 0.03	± 0.005
Long term stability 1 year @ +25°C	[% FS typ.]	± 0.2	± 0.2

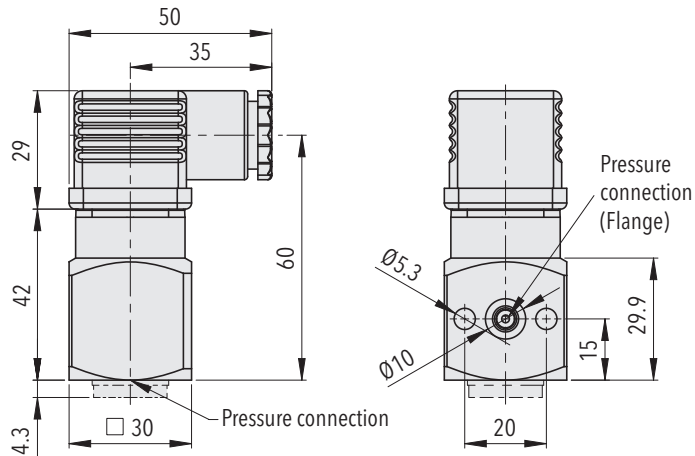
## Measuring accuracy 0.5%



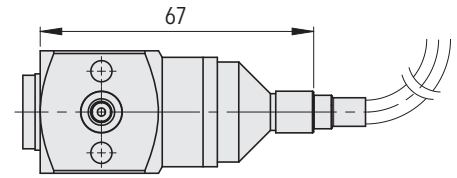
## Measuring accuracy 0.3%



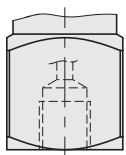
## Dimensions



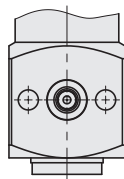
8264.XX.XXXX.04.XX.XX



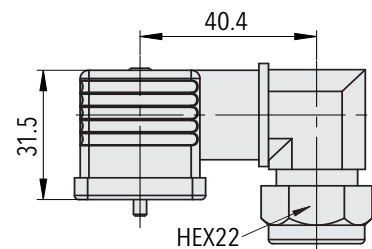
8264.XX.XXXX.78.XX.XX



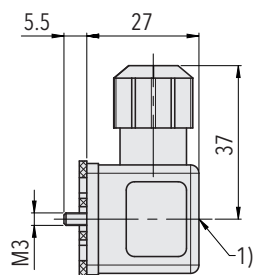
G1/4"x12: 8264.XX.XX10.XX.XX.XX  
 G1/8"x10: 8264.XX.XX18.XX.XX.XX  
 M10x1x10: 8264.XX.XX17.XX.XX.XX



Flange: 8264.XX.XXXX.XX.XX.41

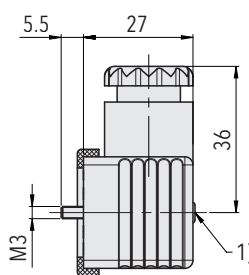


8264.XX.XXXX.XX.XX.55



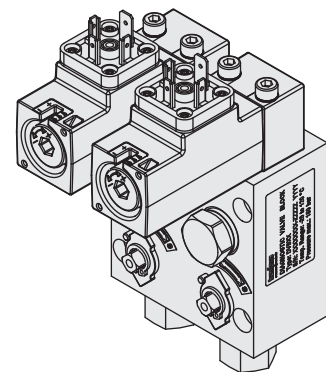
1) Tightening torque 50...60 Ncm

8264.XX.XXXX.XX.XX.46/56

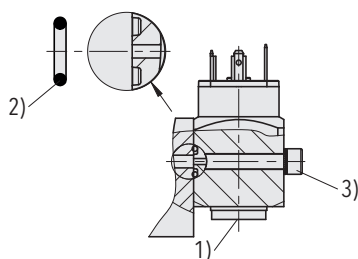


1) Tightening torque 50...60 Ncm

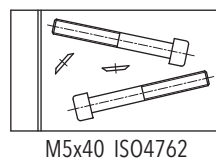
8264.XX.XXXX.XX.XX.58



Diagnostic Valve Bloc (DVB)  
 see specification sheet H72361



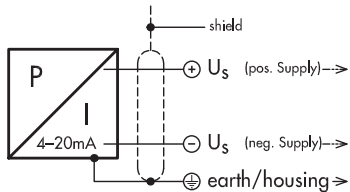
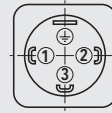
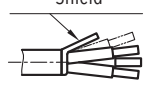
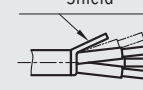
8264.XX.XXXX.XX.XX.41



8264.XX.XXXX.XX.XX.V3

- 1) Torque: G 1/4":  $M_A = 32 \dots 40 \text{ Nm}$
- 2) O-Ring:  $\varnothing 6.75 \times 1.78$  NBR 90 Sh
- 3) Fixing screw: M5; property class: 8.8; torque: 4.5...6 Nm

## Electrical connection

		Protection / electrical connection			
		IP65 *)	IP69K	IP69K	IP69K
<b>Output signal</b>  <b>8264.xx.XXXX.xx.19</b>		Industrial standard EN175301-803A <b>04</b> 	Cable **) <b>78</b> Shield 	Cable **) <b>89</b> Shield 	
		Standard 2 1 ⊕	with accessory 92 1 2 ⊕	brown  black yellow / green	black  blue Shield

\*) Provided female electrical plug is mounted according to instructions

\*\*) Ventilation via cable end

### Additional information

#### Documents

Data sheet	<a href="http://www.trafag.com/H72313">www.trafag.com/H72313</a>
Instructions	<a href="http://www.trafag.com/H73313">www.trafag.com/H73313</a>
Flyer	<a href="http://www.trafag.com/H70673">www.trafag.com/H70673</a>