

# FOR FINE PRESSURE AND FLOW MEASUREMENT

# OEM relative pressure transmitter type 505

Pressure range 0 ... 4 – 16 bar



Type 505 pressure transmitters are particularly suitable for measuring water pressure rates in heating and industrial circular flow.

Due to partially automated manfacturing we are able to handle customer orders in high quantities.

- Best price / performance ratio through:
  - electronic integrated in measuring element
  - optimised mounting concept
  - automatic production
- Ideal for use as a control element, owing to small hysteresis
- The measuring element includes the well proven ceramic technology of Huba Control AG.

Pressure range Relative			0 4 – 16 bar
Operating conditions			
1edium		N. A. a. allinosa	Liquids and not aggressive gases
		Medium Ambient	+2 +90 °C +2 +85 °C
emperature		Storage	-30 +85 °C
		≤ 4 bar	8 bar
olerable overload		> 4 bar	20 bar
		≤ 4 bar	12 bar
upture pressure		> 4 bar	25 bar
aterials			
ase			Plastic thermoplast
130		Pressure connection	Fibre reinforced plastic
laterialien in contact with the medium		Sensor	Ceramic Al <sub>2</sub> O <sub>3</sub> (96%)
aterialier in contact with the medium		Sealing material	EPDM (Ethylene propylene)
ectrical overview	D		
utput	Power supply	Load > 10 kOhm / < 100 nF	Current consumption 1)
5 3.5 V atiom. 10 70%	8.5 30 VDC 5 VDC ±5%	> 10 kOhm / < 100 hF > 10 kOhm / < 100 nF	< 7 mA < 4 mA
atiom. 10 70%	5 VDC ±5%	> 10 kOhm / < 100 hF	< 4 mA
			is protected against crossover up to max. supply vol
		nstallation in equipment. The customer is response	
ynamic response			
esponse time			< 5 ms
oad cycle			< 50 Hz
rotection standard			
000			
ressure connection			
essure connection			Standard
			Form 2 without orifice
onnection plug fitting			Form 3
			Form 4 without orifice
		G 1/4	without orifice
		G 3/8	
		G 3/8	material admission for portable water ≤ 85 °C
utside thread		G 3/8	with bedstop for plug value
		G 3/8	without orifce
		G 3/8	with bedstop for plug value without orifce
ectrical connection			
onnector RAST 2.5			
nstallation arrangement			
ecommended: Electrical connection upwa	ards		
osts / Admissions			
ests / Admissions nock acc. to DIN IEC 60068-2-27		40 α 11 ms half sine wave, all α	directions. Free fall from 1 m on concrete.
ibration acc. to DIN IEC 60068-2-6		5 g, 2 2000 Hz	an ection is the fall from 1 m on concrete.
/eight			
30 g			

Packaging
Bulk cargo in cardboard boxes on Euro pallet (500 pcs.)

Parameter		Unit	
Tolerance zero point	max.	% fs	± 1.5
Tolerance full scale	max.	% fs	± 1.5
Resolution		% FS	0.1
Total of linearity, hysteresis			
and repeatability	max.	% fs	± 1.0
Long term stabilitiy acc. to DIN EN 60770		% fs	± 0.5
TC zero point 3)	typ.	% fs/10K	± 0.6 4)
TC sensitivity 3)	typ.	% fs/10K	± 0.15
Ratiometric error 5)	typ.	% fs	± 0.5

25 °C, 45% RH, power supply 24 VDC / 5 VDC TC z.p. / TC s. 2 ... +80 °C Test conditions:

1) At nominal pressure 4) ≥10 bar = max. ±1.0% fs/10K

 $^{\rm 2)}$  Ratiometric version only through the electrical connector mechanically protected.  $^{\rm 5)}$  At ratiometric version only

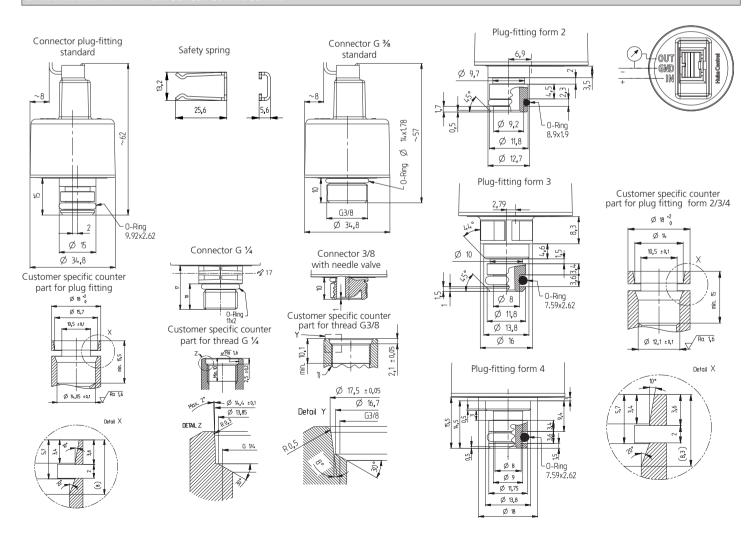
<sup>3)</sup> TC = Temperature coefficient

			1	2	3	4	5
Variantenplan		505	5. X	Χ	X	Χ	X
	0 4 bar		9	1	5		
	0 10 bar	material admission for drinking water ≤ 85 °C	9	3	0	7,B	2
Pressure range 1)	0 12 bar	material admission for drinking water ≤ 85 °C	9	3	В	7,B	
	0 16 bar	material admission for drinking water ≤ 85 °C	9	3	1	7,B	
	▲ Full scale signal at this press	ure					
Pressure connection	Connection plug fitting standard				5	3	
	Connection plug fitting standard	without orifice			5	9	
	Connection plug fitting form 2	without orifice			5	C	
	Connection plug fitting form 3				5	1	
	Connection plug fitting form 4	without orifice			5	Α	
	Outside thread G 3/4				5	4	
	Outside thread G ¾	material admission for drinking water ≤ 85 °C			5	5	
	Outside thread G %	with needle valve			5	6	
	Outside thread G ¾	without orifice				7	
	Outside thread G %	with with needle valve without orifice			5	8	
	Outside thread G ¼	without orifice				В	
	0.5 3.5 V	8.5 30 VDC (not possible with 0 10 bar)					0
Output / power supply	ratiom. 10 70%	5 VDC ±5% (not possible with 0 10 bar)					1
	ratiom. 10 50%	5 VDC ±5%					2

Accessories (Accessories supplied loose)	Order number
Safety spring for all plug connector	112442
Female connector RAST 2.5 with cable 1450 mm	103167
Calibration certificate	104551

AMP Connector 2)	Manufacturer's Part No.	Colour	For flexible wire	
	3-829868-3	grey	7 x 0.20 mm = 0.22 mm <sup>2</sup> or 12 x 0.20 mm = 0.35 mm <sup>2</sup>	
	1-966194-3	beige	$7 \times 0.25 \text{ mm} = 0.35 \text{ mm}^2$ $7 \times 0.25 \text{ mm} = 0.35 \text{ mm}^2$	Connector with cable
				OUT = yellow GND = black

### Dimensions in mm / Electrical connections



1) Other pressure ranges on request

<sup>2)</sup> To be ordered separately from original manufacturer. Further information can be found in the manufacturer specification No. 114-18049



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