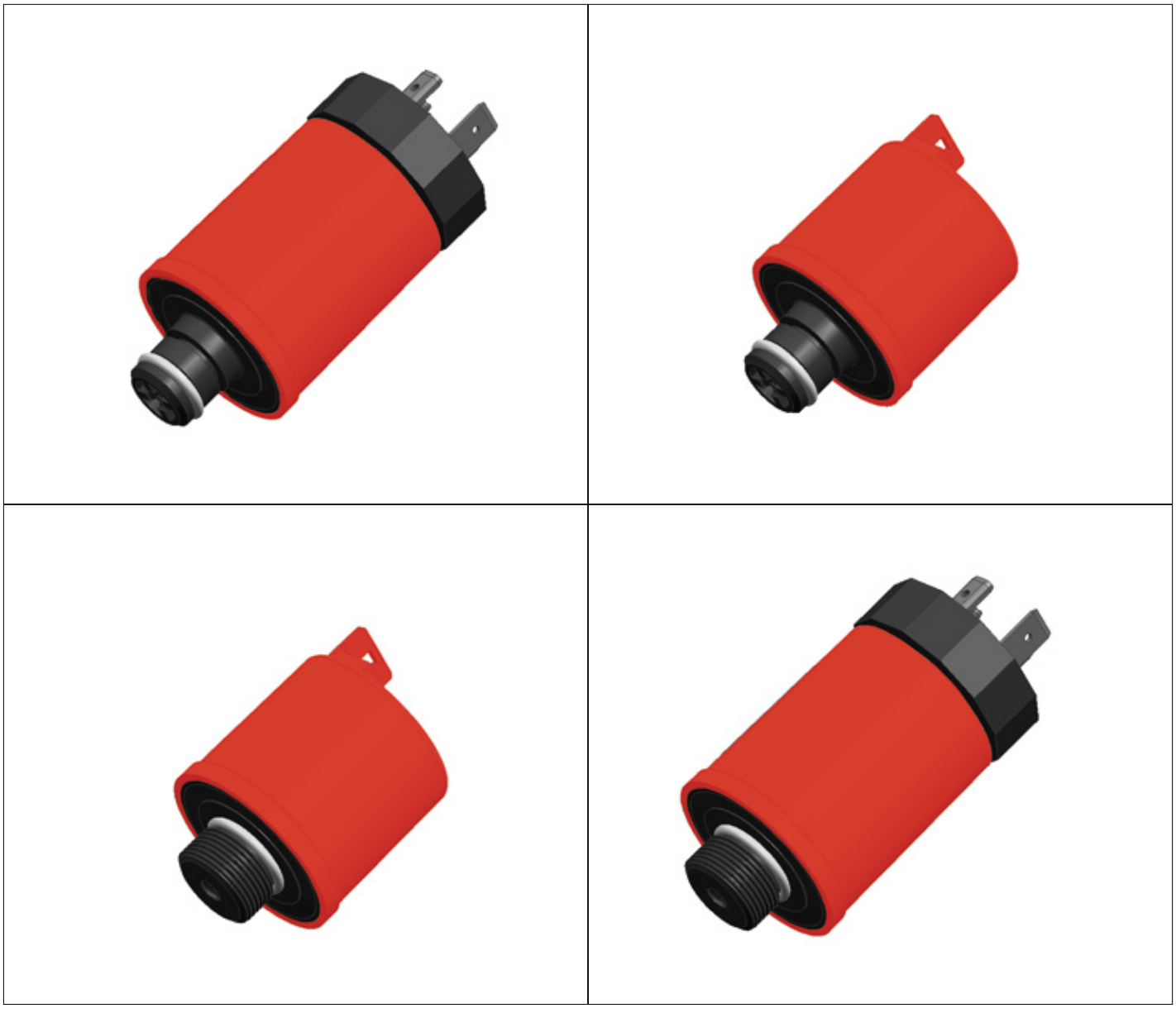
503

Relative pressure transmitter

0 … 2.5 – 25 bar

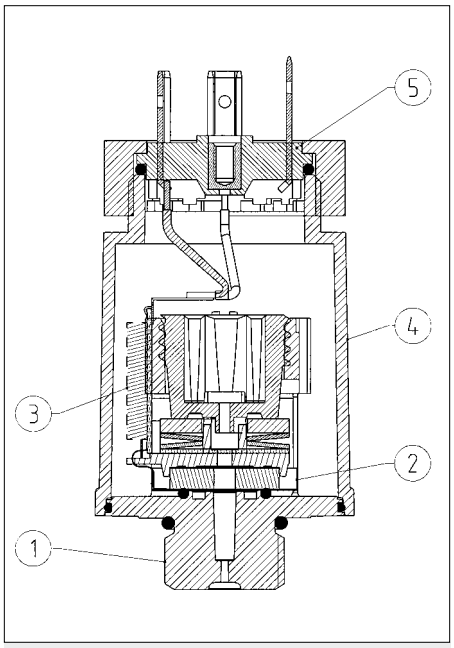


Huba Control

FEINE MESSIDEEN FÜR DRUCK UND STRÖMUNG
FOR FINE PRESSURE AND FLOW MEASUREMENT
LA FINESSE DES MESURES DE PRESSION ET DE DEBIT

Technical overview

The relative pressure transmitter of type series 503 with proved ceramic technology features, calibrated and amplified sensor signals which are available as standard voltage outputs.
Designed for large batch production in OEM applications.



Legend to cross-section drawing

1 Connection fitting
2 Ceramic sensor
3 Hybrid electronics
4 Cover
5 Electrical connection

The distinct advantages

- Partial automatic production, giving ideal price/performance ratio
- Ideal for use as a control element, owing to small hysteresis
- Incorporates all the benefits of ceramics technology for industrial applications

Medium

Liquids and neutral gases

Pressure ranges

relative 0 … 2.5 – 25 bar
(measurement of pressure relative to ambient pressure)

Overload admissible

2 x Measuring range (fs)

Rupture pressure

3 x Measuring range (fs)

Materials in contact with the medium

Pressure connection: Grivory GV 5H
or Noryl GTX 20% GF
Measuring cell: Ceramic Al_2O_3 (96%)
Seal: FPM, EPDM, NBR

Housing material

ABS for cover with connector AMP
PA 6 for cover with connector DIN or cable

Temperature

Medium	2 … 90 °C
Ambient	10 … 60 °C
Storage	–30 … +85 °C

Output / Power supply

Output	Power supply
0.5 … 2.5 V	5 VDC (4.5 … 5.5 V)
0.5 … 3.5 V	8.5 … 30 VDC

Load

> 10 kOhm / <100 nF

Current consumption

At nominal pressure < 5 mA

Dynamic response

Suitable for static and dynamic measurements.

Response time	< 5 ms
Load cycle	< 50 Hz

Electrical connections

Connector DIN EN 175301-803
Connector RAST 2.5
Cable 1.5 m
(recommendation AMP DUOPLUG 2.5™)

Reverse voltage protection

Nominal voltage to declare. Short circuit-proof and protected against polarity reversal. For connector-versions only mechanically protected. The correct wiring acc. to the scheme has to be guaranteed by the OEM-customer.

Protection standard

Connector AMP	IP 00
Connector DIN and cable	IP 54

Pressure connections

Outside thread G $^3/_8$
Plug connector ∅ 15 mm
Counterpart, supplied by customer, *(see drawing on dimensions)*

Installation arrangement

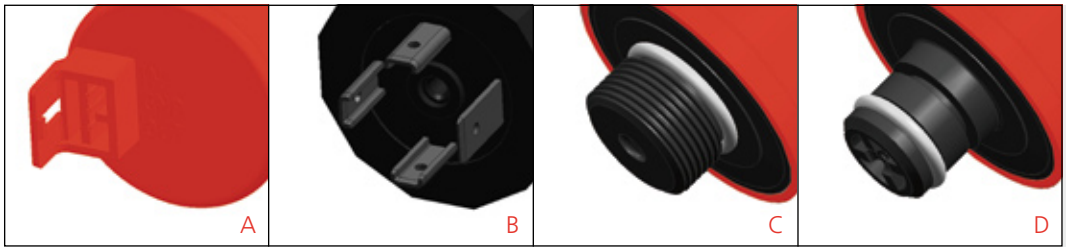
Optional with AMP connector do not use in the area of trickling water
Starting torque G3⁄8 min. 0.4 Nm / max. 0.8 Nm
Destruction > 30 Nm

Weight

with connector AMP	41 g
with connector DIN	55 g
with cable 1.5 meters	95 g

Packaging

Multiple packaging
Cardboard boxes with blister-pack inserts per 240 or 600 pieces



Versions

A – AMP connector

B – DIN connector

C – outside thread G ⅜

D – Plug connector Ø 15 mm

Accuracy

Parameter		Unit	
Tolerance zero point	max.	% fs	± 1.5
Tolerance full scale	max.	% fs	± 1.5
Resolution		% fs	± 0.1
Somme of linerarity, hysteresis and repeatability		% fs	± 1.0
Long term stability acc. to DIN IEC 770		% fs	± 0.5
TC zero point [1]	max.	% fs/10K	± 0.6
TC sensitivity [1]	max.	% fs/10K	± 0.15

Test conditions: 25 °C, 45% rF, Power supply 24 VDC / 4 VDC
TC0 / TCE 2 ... 85 °C

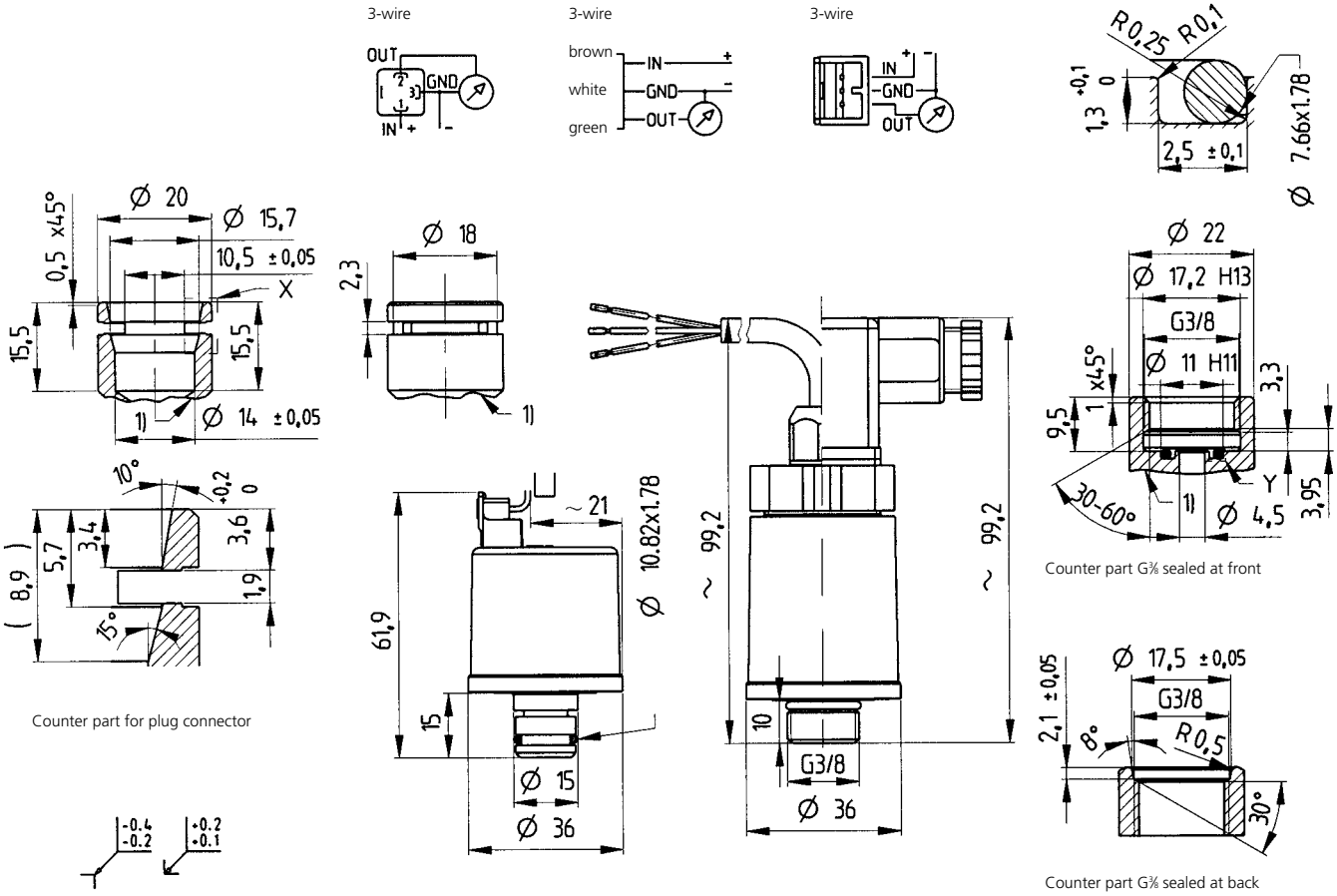
Order code selection table

				503.	X	X	X	X	X	X	X	X
Pressure relative					9							
Pressure ranges (bar) [2]	0 … +2.5					1	4					
	0 … +4					1	5					
	0 … +6					1	7					
	0 … +10					3	0					
	0 … +16					3	1					
	0 … +25					3	2					
Sealing materials [3]	FPM	Fluoro-elastomer						0				
	EPDM	Ethylene proplylene						1				
	NBR	Nitrile butadiene						2				
Calibration	Factory calibrated								0			
Outputs and power supply	0.5 … 2.5 V	5 VDC ±10%	3-wire cable							0		
	0.5 … 3.5 V	8.5 … 30 VDC	3-wire cable							1		
Electrical connections [4]	AMP Duoplug		IP 00								0	
	Connector	DIN 175301-803 A	IP 54								1	
	Cable	1.5 m	IP 54								2	
Pressure connections	Outside thread	G ⅜ sealed at front	Grivory GV 5H								0	
	Outside thread	G ⅜ sealed at back	Grivory GV 5H									1
	Plug connector	(to max. 6 bar measuring range)	Noryl GTX 20% GF			1		1				2

Accessories

		Order-Number
Safety spring for plug connector		105883
Female connector DIN EN 175301-803-A	with sealing	103510
Female connector AMP with cable	1450 mm	103167

[1] TC = Temperature coefficient
[2] Other pressure ranges on request
[3] According to ISO standard R 1629, other sealing materials on request
[4] Delivery without female connector



Electromagnetic compatibility

The product is designed exclusively for installation in equipment which complies with EU directives.The customer is responsible for CE conformity.

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Technische Änderungen vorbehalten.
Technical data subject to change.
Sous réserve de modifications techniques.
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