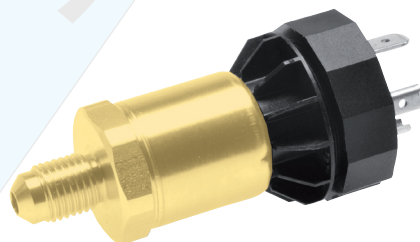


# Relative and absolute pressure transmitter type 508

Pressure range  
0 ... 2.5 – 60 bar

The compact type 508 pressure transmitter is based upon the Huba Control developed and since over 20 years well proven ceramic technology. These transmitters are suitable for OEM applications in high quantities.



## Technical overview

### Pressure range

Relative	0 ... 2.5 – 60 bar
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### Operating conditions

Medium		Liquids and gases
		FPM -15 ... +125 °C
		EPDM -40 ... +125 °C
Temperature	Medium	NBR -20 ... +100 °C
		MVQ -40 ... +125 °C
	Ambient	-30 ... +85 °C
	Storage	-50 ... +100 °C
Tolerable overload / Repture pressure	< 4 bar	3.0 x fs
	> 6 bar	2.5 x fs

### Materials

Cover		Red brass
Plug accommodation		Polyarylamide 50% GF VO
Cable		PVC spec.
Materials in contact with medium	Pressure connection	Red brass CuZn40Pb2
	Sensor	Keramik Al <sub>2</sub> O <sub>3</sub> (96%)
	Sealing material	FPM, EPDM, NBR, MVQ

### Elektrische Daten

	Output	Power supply	Load	Current consumption
2 wire	4 ... 20 mA	7 ... 33 VDC	$\leq \frac{\text{supply voltage} - 7V}{0.02 A}$ [Ohm]	< 20 mA
	1 ... 6 V	8 ... 33 VDC	>10 kOhm / < 100 nF	< 7 mA
	0 ... 10 V	12 ... 33 VDC	>10 kOhm / < 100 nF	< 7 mA
	0 ... 10 V	24 VAC ± 15%	>10 kOhm / < 100 nF	< 7 mA
	ratiom. 10 ... 90%	5 VDC ± 10%	>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.			

### Dynamic response

Response time	< 2 ms, 1 ms typ.
Load cycle	< 50 Hz

### Protection standard

Connector DIN EN 175301-803	IP 65
Connector RAST 2.5	IP 00
All other versions	IP 67

### Electrical connection

Swift connector with or without cable 1.5 m
Connector DIN EN 175301-803-A
Connector DIN EN 175301-803-C (mini DIN)
Metri Pack Serie 150
Connector M12x1
Connector RAST 2.5

### Pressure connection

Inside thread	G ¼	with O-Ring seal FPM spec. (-30 ... +135 °C)
	¼ -18 NPT	
Outside thread	G ¼	sealed at back DIN 3852 form E with Profile seal ring in FPM spec. (-30 ... +135 °C)
	R ¼	DIN 2999

### Installation arrangement

Unrestricted
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### Tests / Admissions

Electromagnetic compatibility	CE conformity acc. EN 61326-2-3
Shock acc. IEC 60068-2-27	25 g, 6 ms half sine wave, all 3 directions.
Drop test EN 60068-2-23	from 1 m on concrete
Vibration acc. IEC 60770-1	5 m/s, 10 ... 1000 Hz, 1 Octave/min 20 constant load per axis

### Weight

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

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

## Accuracy acc. to EN 60770-1

Parameter	Unit	
Characteristic line (at reference conditions) <sup>1)</sup>	% fs	± 1.5
Resolution	% fs	0.1
Thermal characteristic <sup>2)</sup>	% fs/10K	± 0.2
Without TC zero adjustment	% fs/10K	± 0.6

Test conditions: 25 °C, 45% RH, power supply 24 VDC

Order code selection in bar			508.9 X X X X X X X X X X																		
Pressure range <sup>3)</sup>	0 ... + 2.5 bar		1	4																	
	0 ... + 4 bar		1	5																	
	0 ... + 6 bar		1	7																	
	0 ... + 10 bar		3	0																	
	0 ... + 16 bar		3	1																	
	0 ... + 25 bar		3	2																	
	0 ... + 40 bar		3	3																	
	0 ... + 60 bar		4	0																	
Sealing material	FPM	Fluoro elastomer							0												
	EPDM	Ethylene propylene							1												
	NBR	Butadiene Acrylonitrile							2												
	MVQ	Silicone polymer							3												
Temperature adjustment	without TC zero adjustment								0												
	with TC zero adjustment								1												
Output / power supply	1 ... 6 V	8 ... 33 VDC													6						
	0 ... 10 V	12 ... 33 VDC													2						
	0 ... 10 V	24 VAC ±15%													8	1,2					
	ration. 10 ... 90%	5VDC ±10%													7						
	4 ... 20 mA	7 ... 33 VDC													3						
Electrical connection <sup>4)</sup>	Swift connector																			0	
	Connector DIN EN 175301-803-A																				1
	Connector DIN EN 175301-803-C (mini DIN)																				2
	Connector M12x1 <sup>5)</sup> 2w: IN=1 / OUT=3 3w: IN=1 / OUT=4 / GND=3																				3
	Connector M12x1 <sup>5)</sup> 2w: IN=1 / OUT=4 3w: IN=1 / OUT=3 / GND=4																				M
	Connector RAST 2.5 (with sealing parts)															7	4				
	Connector RAST 2.5 (without sealing parts)															7	6				
	Metri Pack Serie 150 <sup>5)</sup>																				5
	Swift connector with cable 1.5 m																				L
Pressure connection <sup>6)</sup>	Inside thread	G ¼ with O-Ring seal FPM spec. (-30 ... +135 °C)																		1	0
	Oustide thread	¼ -18 NPT																		3	0
	Oustide thread	G ¼ sealed at back DIN 3852 form E with Profile seal ring in FPM spec. (-30 ... +135 °C)																		4	0
	Oustide thread	R ¼ acc. to DIN 2999																		7	0
Pressure range variation	Indicate W and state range on order (e.g.: W0... + 3bar/OUT0...5V)																				W

## Accessories

	Order number
Swift connector	107359
Female connector DIN EN 175301-803-A with seal	103510
Female connector DIN EN 175301-803-C (mini DIN) with seal	104244
Female connector for connector M12x1	106975

<sup>1)</sup> incl. zero point, full scale, linearity, hysteresis and repeatability

<sup>2)</sup> -15 ... 85°C

<sup>4)</sup> Delivery without female connector

<sup>5)</sup> For pressure ranges ≤ 16 bar only possible if deaeration through the cable is assured

<sup>3)</sup> Other pressure ranges on request

<sup>6)</sup> Other pressure connections on request

Order code selection in psi			508.9 X X X X X X X X X X																			
Pressure range <sup>1)</sup>	0 ... + 30 psi		B	4																		
	0 ... + 60 psi		B	5																		
	0 ... + 100 psi		B	7																		
	0 ... + 150 psi		C	0																		
	0 ... + 200 psi		C	1																		
	0 ... + 300 psi		C	2																		
	0 ... + 500 psi		C	3																		
	0 ... + 750 psi		D	0																		
Sealing material	FPM	Fluoro elastomer										0										
	EPDM	Ethylene propylene										1										
	NBR	Butadiene Acrylonitrile										2										
	MVQ	Silicone polymer										3										
Temperature adjustment	without TC zero adjustment												0									
	with TC zero adjustment												1									
Output / power supply	1 ... 6 V	8 ... 33 VDC													6							
	0 ... 10 V	12 ... 33 VDC													2							
	0 ... 10 V	24 VAC ±15%													8	1,2						
	ratiom. 10 ... 90%	5VDC ±10%													7							
	4 ... 20 mA	7 ... 33 VDC													3							
Electrical connection <sup>4)</sup>	Swift connector																			0		
	Connector DIN EN 175301-803-A																				1	
	Connector DIN EN 175301-803-C (mini DIN)																					2
	Connector M12x1 <sup>5)</sup> 2w: IN=1 / OUT=3 3w: IN=1 / OUT=4 / GND=3																					3
	Connector M12x1 <sup>5)</sup> 2w: IN=1 / OUT=4 3w: IN=1 / OUT=3 / GND=4																					M
	Connector RAST 2.5 (with sealing parts)															7	4					
	Connector RAST 2.5 (without sealing parts)															7	6					
	Metri Pack Serie 150 <sup>5)</sup>																					5
Swift connector with cable 1.5 m																					L	
Pressure connection <sup>6)</sup>	Inside thread	G ¼ with O-Ring seal FPM spec. (-30 ... +135 °C)																			1 0	
	Oustide thread	¼ -18 NPT																			3 0	
	Oustide thread	G ¼ sealed at back DIN 3852 form E with Profile seal ring in FPM spec. (-30 ... +135 °C)																			4 0	
	Oustide thread	R ¼ acc. to DIN 2999																			7 0	
Pressure range variation	Indicate W and state range on order (e.g.:W0... + 40psi/OUT1...8V)																				W	

<sup>1)</sup> Other pressure ranges on request

<sup>3)</sup> For pressure ranges ≤16 bar only possible if deaeration through the cable is assured

<sup>2)</sup> Delivery without female connector

<sup>4)</sup> Other pressure connections on request

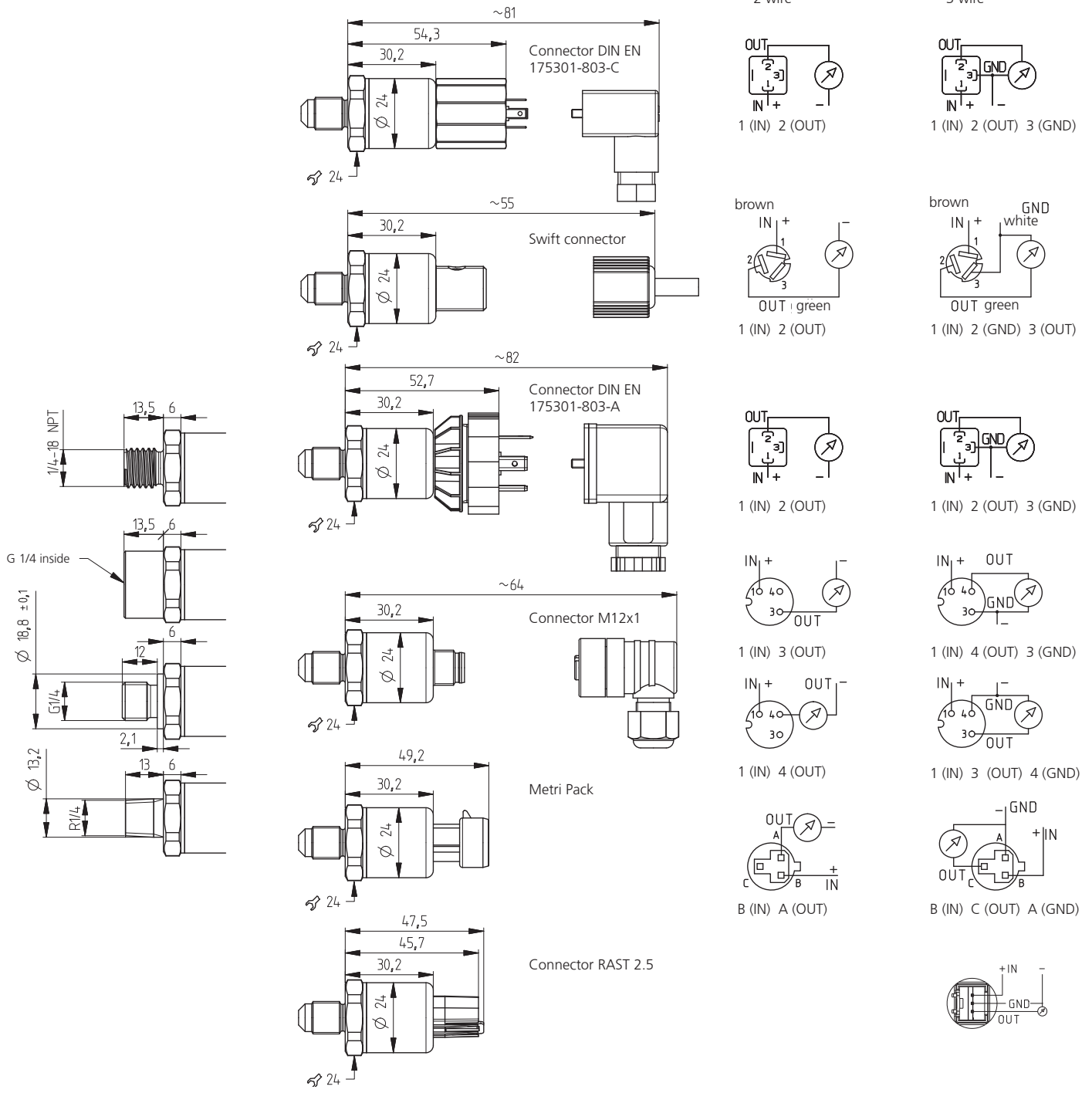
Order code selection in MPa			508.9	X	X	X	X	X	X	X	X	X	X	
Pressure range <sup>1)</sup>	0 ... +0.25 MPa		G	4										
	0 ... + 0.4 MPa		G	5										
	0 ... + 0.6 MPa		G	7										
	0 ... + 1 MPa		H	0										
	0 ... + 1.6 MPa		H	1										
	0 ... + 2.5 MPa		H	2										
	0 ... + 4 MPa		H	3										
	0 ... + 6 MPa		K	0										
Sealing material	FPM	Fluoro elastomer							0					
	EPDM	Ethylene propylene							1					
	NBR	Butadiene Acrylonitrile							2					
	MVQ	Silicone polymer							3					
Temperature adjustment	without TC zero adjustment								0					
	with TC zero adjustment								1					
Output / power supply	1 ... 6 V	8 ... 33 VDC									6			
	0 ... 10 V	12 ... 33 VDC									2			
	0 ... 10 V	24 VAC ±15%									8	1,2		
	ratiom. 10 ... 90%	5VDC ±10%									7			
	4 ... 20 mA	7 ... 33 VDC									3			
Electrical connection <sup>4)</sup>	Swift connector											0		
	Connector DIN EN 175301-803-A											1		
	Connector DIN EN 175301-803-C (mini DIN)											2		
	Connector M12x1 <sup>5)</sup> 2w: IN=1 / OUT=3 3w: IN=1 / OUT=4 / GND=3											3		
	Connector M12x1 <sup>5)</sup> 2w: IN=1 / OUT=4 3w: IN=1 / OUT=3 / GND=4											M		
	Connector RAST 2.5 (with sealing parts)										7	4		
	Connector RAST 2.5 (without sealing parts)										7	6		
	Metri Pack Serie 150 <sup>5)</sup>											5		
Swift connector with cable 1.5 m											L			
Pressure connection <sup>6)</sup>	Inside thread	G ¼ with O-Ring seal FPM spec. (-30 ... +135 °C)										1	0	
	Oustide thread	¼ -18 NPT										3	0	
	Oustide thread	G ¼ sealed at back DIN 3852 form E with Profile seal ring in FPM spec. (-30 ... +135 °C)										4	0	
	Oustide thread	R ¼ acc. to DIN 2999										7	0	
Pressure range variation	Indicate W and state range on order (e.g.: W0... + 0.3MPa/OUT1...8V)											W		

<sup>1)</sup> Other pressure ranges on request

<sup>3)</sup> For pressure ranges ≤ 16 bar only possible if deaeration through the cable is assured

<sup>2)</sup> Delivery without female connector

<sup>4)</sup> Other pressure connections on request



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