

Pressure transmitters / transducers



- The pressure transmitters / transducers shown in this brochure are only a small range of our possibilities
- High overpressure safety for use in mobile hydraulics
- Long life time even with high pressure change rates
- Wetted parts made of stainless steel and titanium to ensure problem-free medium compatibility
- Silicon-on-Sapphire technology (SoS) for highest accuracy, reliability and safe process monitoring
- Customized versions on request

Technical data



Type	0705	0710	0720
Output signal:	0.5 – 4.5 V ratiometric	0 – 10 V (3-wire)	4 – 20 mA (2-wire)
Supply voltage U_b :	5 VDC \pm 10 % max. 6.5 VDC	12 – 32 VDC	10 – 32 VDC
Maximum load:	\geq 4.7 k Ω	\geq 4.7 k Ω	$\leq (U_b - 10 \text{ V}) / 20 \text{ mA}$
Accuracy:	± 0.5 % FS at room temperature		
Long term stability:	± 0.1 % FS p. a.		
Repeatability:	± 0.1 % FS		
Thermal error:	± 0.01 % FS / $^{\circ}\text{C}$		
Compensated temperature range:	-40 $^{\circ}\text{C}$ – +80 $^{\circ}\text{C}$		
Temperature range ambient:	-40 $^{\circ}\text{C}$ – +100 $^{\circ}\text{C}$		
Temperature range media:	-40 $^{\circ}\text{C}$ – +125 $^{\circ}\text{C}$		
Mechanical life expectancy:	10^7 pulses up to p_{nom}		
Overload factor p_o ¹⁾ :	4x p_{nom} , static (above 600 bar: $p_o = 1.650$ bar)		
Burst pressure ¹⁾ :	8x p_{nom} , static (above 400 bar: burst pressure = 2.000 bar)		
Wetted part materials:	stainless steel 1.4305 / SAE Grade 303, titanium		
Maximum pressure rise rate:	< 5.0 bar / ms		
Response time 10 – 90 %:	< 2 ms		
Resistance against vibrations:	20 g, 4 – 2000 Hz DIN EN 60068-2-6		
Shock proof:	Half sine 500 m/s ² , 11 ms DIN EN 60068-2-29		
IP-protection class:	IP67 at M 12x1, DIN 72585 (Bayonet) and cable connection IP65 at DIN EN 175301-803		
EMC:	EMV 89/336/EG, EN 61000-6-2, EN 61000-6-3		
Max. length of connection cable:	30 m		
Protection against reverse polarity, short-circuit and over voltage surges:	built-in		
Standard-Pressure ranges p_{nom} :	0 – 10 bar; 0 – 16 bar; 0 – 25 bar; 0 – 40 bar; 0 – 60 bar; 0 – 100 bar; 0 – 160 bar; 0 – 250 bar; 0 – 400 bar; 0 – 600 bar		
Weight in grams:	approx. 80 g (DIN 175301 approx. 110 g)		

CE marking

SUCO pressure transmitters / transducers are covered by the EMV-directive 89/336/EC. An EC Declaration of Conformity has been issued for these pressure transmitters / transducers and is on file at our offices. The corresponding switches bear the CE mark in our catalogue.

Degree of protection

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the electrical connection complies with regulations other than those stated and whether it can be used for special applications which could not be foreseen by us.



¹⁾ Static pressure. Dynamic pressure should be 30 to 50 % lower. These values refer to the hydraulic or pneumatic part of the pressure transmitters / transducers.

0705/0710/0720

Technical explanations



DIN EN 175301-803-A

0705 + 0710	0720
1: U _{out}	1: nc
2: Gnd	2: I _{out}
3: Uv+	3: Uv+

x ~ 60 mm (without connector)
x ~ 76 mm (with connector)

d = Ø 30 mm

Order number: 001

M 12 – DIN EN 61071-2-101 D

0705 + 0710	0720
1: Uv+	1: Uv+
2: U _{out}	2: nc
3: Gnd	3: I _{out}
4: nc	4: nc

x ≈ 54 mm

d = Ø 22 mm

Order number: 002

DIN 72585-A1-4.1

0705 + 0710	0720
1: Uv+	1: Uv+
2: Gnd	2: nc
3: U _{out}	3: I _{out}
4: nc	4: nc

x ≈ 65 mm

d = Ø 27 mm

Order number: 004

Cable connection

1: red
2: white
3: black

0705 + 0710	0720
1: Uv+	1: Uv+
2: Gnd	2: nc
3: U _{out}	3: I _{out}

x ~ 44 mm (+ 20 mm bend relief)
length of cable ~ 2 m

d = Ø 22 mm

Order number: 011



Order number: 41

Order number: 03

Order number: 04

Order number: 09

Order number: 13

Order number: 20

Order number: 21

Order number: 42

0705/0710/0720

Order matrix for pressure transmitters / transducers

	Type	Pressure range	Pressure connection	Pressure units	Electrical connection
Type	↓	↓	↓	↓	↓
0.5 – 4.5 V ratiometric	0705				
0 – 10 V 3-wire	0710				
4 – 20 mA 2-wire	0720				
Pressure range	↓				
0 – 10 bar (approx. 145 PSI)		101			
0 – 16 bar (approx. 232 PSI)		161			
0 – 25 bar (approx. 362 PSI)		251			
0 – 40 bar (approx. 580 PSI)		401			
0 – 60 bar (approx. 870 PSI)		601			
0 – 100 bar (approx. 1.450 PSI)		102			
0 – 160 bar (approx. 2.320 PSI)		162			
0 – 250 bar (approx. 3.620 PSI)		252			
0 – 400 bar (approx. 5.800 PSI)		402			
0 – 600 bar (approx. 8.700 PSI)		602			
Pressure connection		↓			
G 1/4 – DIN 3852-E			41		
G 1/4 – DIN 3852-A			03		
NPT 1/8			04		
NPT 1/4			09		
M 10 x 1 tap.			13		
7 / 16 – 20 UNF			20		
9 / 16 – 18 UNF			21		
M 14 x 1.5 – DIN 3852-E			42		
Pressure units			↓		
bar				B	
PSI				P	
Electrical connection				↓	
DIN EN 175301-803-A (DIN 43 650-A) Socket device included					001
M 12 – DIN EN 61071-2-101 D					002
DIN 72585-A1-4.1 (Bayonet)					004
Cable connection (length of cable 2 m standard)					011
Order number:	↓	↓	↓	↓	↓
Order number:	07XX	- XXX	- XX	- X	- XXX

Abbreviation for unit	Pa = N/m ²	bar	lbf/in ² , PSI
1 Pascal	1	0.00001	0.00014
1 bar	100.000	1	14.5
1 lbf/in ² , PSI	6894	0.06894	1

Accessories (not included)

Socket device M12x1 straight



Order number:

1-6-00-652-016

Socket device M12x1 angular



Order number:

1-6-00-652-017