

## Pressure Transducers Pressure Transmitters

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- Silicon-on-Sapphire technology (SoS) for highest accuracy, reliability and safe process monitoring.
- High overpressure safety for use in mobile hydraulics.
- Long life even with high pressure rise rates.
- Wetted parts made of stainless steel and titanium to ensure problem-free medium compatibility.
- Welded diaphragm, no internal seals.
- Customized versions on request.
- There are many more options available than shown in this brochure.

**CE marking**

SUCO pressure transducers / transmitters are covered by the EMV-directive 89/336/EC.

An EC Declaration of Conformity has been issued for these pressure transducers / transmitters and is on file at our offices.

**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.

**Oxygen warning!**

Do not use for oxygen applications!

Type	0705	0710	0720
Output signal:	0.5 – 4.5 V radiometrically	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 $\Omega$	$\geq$ 4.7 k $\Omega$	$\leq$ ( $U_b - 10$ V) / 20 mA
Accuracy:	$\pm$ 0.5 % full scale at room temperature		
Long term stability:	$\pm$ 0.1 % FS p. a.		
Repeatability:	$\pm$ 0.1 % FS		
Thermal error:	$\pm$ 0.01 % FS/ $^{\circ}$ C		
Compensated temperature range:	-40 $^{\circ}$ F to +176 $^{\circ}$ F (-40 $^{\circ}$ C to +80 $^{\circ}$ C)		
Temperature range ambient:	-40 $^{\circ}$ F to +212 $^{\circ}$ F (-40 $^{\circ}$ C to +100 $^{\circ}$ C)		
Temperature range media:	-40 $^{\circ}$ F to +257 $^{\circ}$ F (-40 $^{\circ}$ C to +125 $^{\circ}$ C)		
Mechanical life expectancy:	$10^7$ pulses up to $p_{nom}$		
Overload factor $p_o$ <sup>1)</sup> :	4xp <sub>nom,static</sub> ; over 8,700 psi = $p_o$ : 23,925 psi (over 600 bar = $p_o$ : 1,650 bar)		
Burst pressure <sup>1)</sup> :	8xp <sub>nom,static</sub> ; over 5,800 psi = burst pressure : 29,000 psi (over 400 bar = burst pressure: 2,000 bar)		
Wetted part materials:	stainless steel 1.4305 / SAE Grade 303, titanium		
Maximum pressure rise rate:	< 72,500 psi/s (< 5.0 bar / ms)		
Response time 10 - 90% :	< 2 ms		
Resistance against vibrations:	20 g, 4 - 2000Hz DIN EN 60068-2-6		
Shock proof:	Half sine 500 m/s, 11 ms DIN EN 60068-2-29		
IP- protection class:	IP67 at M 12x1, DIN 72585 (Bayonet) IP65 at DIN EN 175301-803 and cable connection		
EMC:	EMV 89/336/EG, EN 61000-6-2, EN 61000-6-3		
Max. length of connection cable:	100 ft (ca. 30 m)		
Protection against reverse polarity, short-circuit and over voltage surges::	built-in		
Weight:	ca. 2.8 oz / 80 g (DIN 175301 ca. 3.9 oz / 110 g)		

<sup>1)</sup> Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

# 0705 / 0710 / 0720

## Order matrix for Pressure Transducers / Transmitters

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	Type	Pressure range	Pressure connection	Pressure Units	Electrical connection
	↓	↓	↓	↓	↓
<b>Type</b>					
0.5 – 4.5 V ratiometrically	<b>0705</b>				
0 – 10 V 3-wire	<b>0710</b>				
4 – 20 mA 2-wire	<b>0720</b>				
	↓				
<b>Pressure range</b>					
0 – 10 bar (0 - 145 PSI)		<b>101</b>			
0 – 16 bar (0 - 232 PSI)		<b>161</b>			
0 – 25 bar (0 - 362 PSI)		<b>251</b>			
0 – 40 bar (0 - 580 PSI)		<b>401</b>			
0 – 60 bar (0 - 870 PSI)		<b>601</b>			
0 – 100 bar (0 - 1,450 PSI)		<b>102</b>			
0 – 160 bar (0 - 2,320 PSI)		<b>162</b>			
0 – 250 bar (0 - 3,620 PSI)		<b>252</b>			
0 – 400 bar (0 - 5,800 PSI)		<b>402</b>			
0 – 600 bar (0 - 8,700 PSI)		<b>602</b>			
	↓				
<b>pressure connection</b>					
1/4" BSPP – DIN 3852-E			<b>41</b>		
1/4" BSPP – DIN 3852-A			<b>03</b>		
NPT 1/8			<b>04</b>		
NPT 1/4			<b>09</b>		
M 10x1 tap.			<b>13</b>		
7/16-20 UNF			<b>20</b>		
9/16-18 UNF			<b>21</b>		
M 14x1.5 – DIN 3852-E			<b>42</b>		
	↓				
<b>Pressure Units</b>					
bar				<b>B</b>	
psi				<b>P</b>	
	↓				
<b>Electrical connection</b>					
DIN EN 175301-803-A (DIN 43 650-A) Socket device included					<b>001</b>
M 12 – DIN EN 61071-2-101 D					<b>002</b>
DIN 72585-A1-4.1 (Bayonet)					<b>004</b>
Cable connection (length of cable 2 m / 78" standard)					<b>011</b>
	↓	↓	↓	↓	↓
<b>Order number</b>	<b>07XX</b>	<b>XXX</b>	<b>XX</b>	<b>X</b>	<b>XXX</b>

### Accessories (not included)

#### Socket device M 12x1 straight



Order number:  
1-6-00-652-016

#### Socket device M 12x1 angular



Order number:  
1-6-00-652-017

**Oxygen warning!**  
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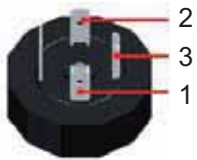
Abbreviation for unit	Pa = N/m <sup>2</sup>	bar	lbf/in <sup>2</sup> , PSI
1 Pascal	1	0.00001	0.00014
1 bar	100,000	1	14.5
1 lbf/in <sup>2</sup> , PSI	6894	0.06894	1



# 0705 / 0710 / 0720

## Technical explanations

**DIN EN 175301-803-A**



0705 + 0710	0720
1: U <sub>out</sub>	1: nc
2: Gnd	2: I <sub>out</sub>
3: Uv+	3: Uv+

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

d = ø 22 mm

Order number: **001**

**M 12 – DIN EN 61071-2-101 D**




0705 + 0710	0720
1: Uv+	1: Uv+
2: U <sub>out</sub>	2: nc
3: Gnd	3: I <sub>out</sub>
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 <sub>out</sub>	3: I <sub>out</sub>
4: nc	4: nc

x ~ 65 mm

d = ø 22 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 <sub>out</sub>	3: I <sub>out</sub>

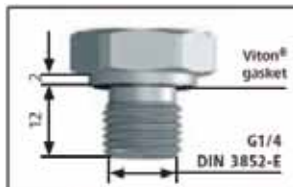
x ~ 44 mm (+ 20 mm bend relief)  
length of cable ~ 2 m / 78"

d = ø 22 mm

Order number: **011**



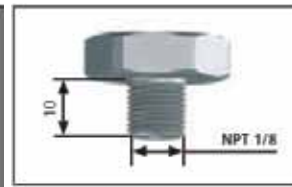
hex 22 mm



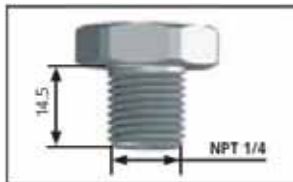
Order number: 41



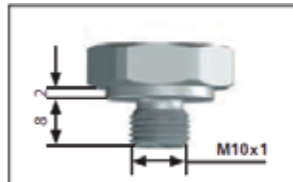
Order number: 03



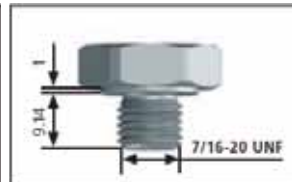
Order number: 04



Order number: 09



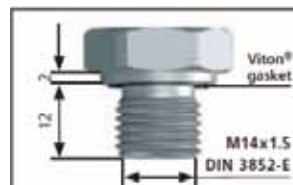
Order number: 13



Order number: 20



Order number: 21



Order number: 42