

## Pressure transmitters, Performance series

hex 24



- Very attractively priced electronic pressure transmitters
- High overpressure protection (up to 2 x)
- Small, compact transmitters
- High level of adaptability to your requirements (custom solutions)
- Ceramic sensor in thick film technology
- Housing made of stainless steel (1.4305), others on request
- Available as 'plasma cleaned for oxygen applications'<sup>1)</sup>

<sup>1)</sup> For oxygen applications, the EPDM diaphragm can only be used up to 250 bar and a media temperature of max. +60°C.

# Pressure transmitters, Performance series

## Technical details

	<b>0601</b>	<b>0602</b>
Output signal:	0 - 10 V (3-wire)	4 - 20 mA (2-wire)
Supply voltage $U_{V+}$ :	11 - 32 VDC with reverse voltage protection	9.6 - 32 VDC with reverse voltage protection
Permissible load / apparent ohmic resistance:	$\geq 4.7 \text{ k}\Omega$	$\leq (U_{V+} - 10 \text{ V}) / 20 \text{ mA}$
Idle power consumption:	approx. 5 mA	< 4 mA

		<b>0601 / 0602</b>						
Standard pressure ranges $p_{nom}$ :		0 – 2 bar	0 – 4 bar	0 – 10 bar	0 – 16 bar	0 – 40 bar	0 – 100 bar	0 – 250 bar
Overpressure protection $p_u$ <sup>1)</sup> :		4 bar	10 bar	20 bar	40 bar	100 bar	150 bar	375 bar
Burst pressure <sup>1)</sup> :		8 bar	20 bar	35 bar	60 bar	140 bar	300 bar	500 bar
Mechanical life expectancy:		5,000,000 pulsations at rise rates to 1,000 bar/s at $p_{nom}$						
Permitted pressure change rate:		$\leq 1,000 \text{ bar/s}$						
Accuracy:		$\leq \pm 1 \%$ full scale (FS) at room temperature, $\pm 0.5 \%$ BFSL						
Long term stability:		$\pm 0.3 \%$ of full scale (FS) per year						
Repeatability <sup>2)</sup> :		$\pm 0.1 \%$ FS						
Temperature error <sup>2)</sup> :		$\leq \pm 0.04 \%$ of full scale (FS) / °C						
Compensated temperature range:		0 °C ... +70 °C (32 °F ... 158 °F)						
Temperature range ambient:		-30 °C ... +100 °C (-22 °F ... 212 °F)						
Temperature range media:		with TPE seal: -30 °C ... +110 °C (-22 °F ... +230 °F)						
		with NBR seal: -30 °C ... +100 °C (-22 °F ... +212 °F)						
		with EPDM seal: -30 °C ... +125 °C (-22 °F ... +257 °F)						
		with FKM seal: -20 °C ... +125 °C (-4 °F ... +257 °F)						
Wetted parts material	Housing:	Stainless steel 1.4305 (AISI 303)						
	Measuring cell:	Ceramic						
	Seal material:	TPE, NBR, EPDM or FKM <sup>3)</sup>						
Insulation resistance:		> 100 M $\Omega$ (35 VDC)						
Response time 10 – 90 %:		$\leq 2 \text{ ms}$						
Vibration resistance:		20 g at 4 – 2000 Hz sine wave; DIN EN 60068-2-6						
Shock resistance:		half sine wave 500 m/s <sup>2</sup> ; 11 ms; DIN EN 60068-2-27						
Protection class		IP65: DIN EN 175301-803-A, IP67: M12x1, AMP Superseal 1.5°, cable connector IP67 and IP6K9K: Bayonet ISO 15170-A1-4.1, Deutsch DT04-3P						
Electromagnetic compatibility:		EMC 2014/30/EU, EN 61000-6-2:2005, EN 61000-6-3:2007						
Max. length of connection cable:		30 m						
Protection against reverse polarity, short-circuit and overvoltage:		Built-in						
Cable output thread size:		For DIN EN 175301: PG9 (outside diameter of cable 6 to 9 mm)						
Weight:		approx. 80 g (DIN EN 175301 approx. 110 g)						

<sup>1)</sup> Static pressure, dynamic pressure 30 to 50% lower. Values refer to the hydraulic or pneumatic part of the pressure transmitter.

<sup>2)</sup> Within the compensated temperature range

<sup>3)</sup> FKM sealings are only suitable for pressure ranges up to 0-16 bar.



# T.1

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Performance

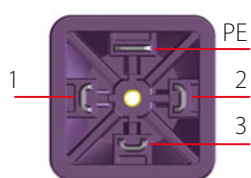
# 0601 / 0602

Electrical connectors and threads



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### DIN EN 17530-803-A



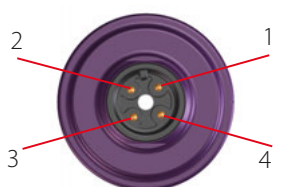
Pin	0601	0602
1	$U_{V+}$	$U_{V+}$
2	Gnd	$I_{out}$
3	$U_{out}$	nc
PE		

IP65

x ~ 60 mm without socket device  
x ~ 77 mm with socket device

Connection code: 013

### M12-DINEN61076-2-101A



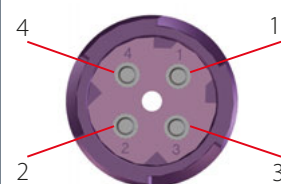
Pin	0601	0602
1	$U_{V+}$	$U_{V+}$
2	$U_{out}$	nc
3	Gnd	$I_{out}$
4	nc	nc

IP67

x ~ 54 mm

Connection code: 002

### ISO 15170 - A1 - 4.1



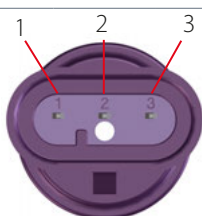
Pin	0601	0602
1	$U_{V+}$	$U_{V+}$
2	Gnd	$I_{out}$
3	$U_{out}$	nc
4	nc	nc

IP67, IP6K9K

x ~ 56 mm

Connection code: 015

### AMP Superseal 1.5®



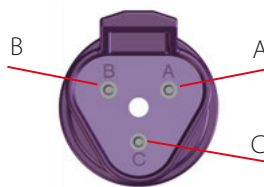
Pin	0601	0602
1	$U_{out}$	nc
2	Gnd	$I_{out}$
3	$U_{V+}$	$U_{V+}$

IP67

x ~ 61 mm

Connection code: 007

### Deutsch DT04 - 3P

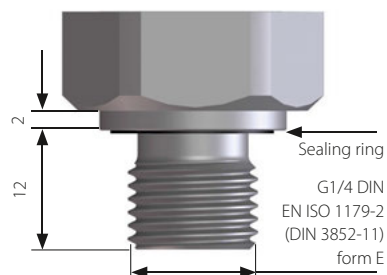


Pin	0601	0602
A	$U_{V+}$	$U_{V+}$
B	Gnd	$I_{out}$
C	$U_{out}$	nc

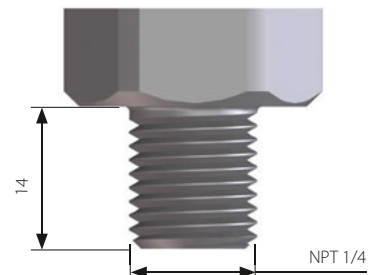
IP67, IP6K9K

x ~ 61 mm

Connection code: 014



Thread code: 41



Thread code: 09



# 0601 / 0602

Article matrix for pressure transmitters

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Performance



	Type	Pressure range	Pressure connection	Seal material	Electrical connection
	↓	↓	↓	↓	↓
0 - 10 V, 3-wire	<b>0601</b>				
4 - 20 mA, 2-wire	<b>0602</b>				

Max. Overpressure <sup>1)</sup>	Burst Pressure	Pressure range	
4 bar	8 bar	0 - 2 bar (approx. 29 PSI)	<b>200</b>
10 bar	20 bar	0 - 4 bar (approx. 58 PSI)	<b>400</b>
20 bar	35 bar	0 - 10 bar (approx. 145 PSI)	<b>101</b>
40 bar	60 bar	0 - 16 bar (approx. 230 PSI)	<b>161</b>
100 bar	140 bar	0 - 40 bar (approx. 580 PSI)	<b>401</b>
150 bar	300 bar	0 - 100 bar (approx. 1.450 PSI)	<b>102</b>
375 bar	500 bar	0 - 250 bar (approx. 3.625 PSI)	<b>252</b>

### Pressure connection

G1/4 – DIN EN ISO 1179-2 (DIN 3852-11), form E	<b>41</b>
NPT 1/4	<b>09</b>

### Seal material – Application areas

<b>NBR</b>	Hydraulic/machine oil, air, nitrogen, water, etc.	<b>1</b>
<b>EPDM</b>	Brake fluid, water, acetylene, hydrogen, oxygen etc.	<b>2</b>
<b>FKM<sup>2)</sup></b>	Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc.	<b>3</b>
<b>TPE</b>	Hydraulic/machine oil, water, air, nitrogen, acetylene, etc.	<b>7</b>

### Electrical connection

DIN EN 175301-803-A (DIN 43650-A); socket device included	<b>013</b>
M12x1 - DIN EN 61076-2-101-A	<b>002</b>
Bayonet ISO 15170-A1-4.1 (DIN 72585-A1-4.1)	<b>015</b>
AMP Superseal 1.5 <sup>o</sup>	<b>007</b>
Deutsch DT04-3P	<b>014</b>

<b>Article number</b>	<b>060X</b>	<b>XXX</b>	<b>XX</b>	<b>X</b>	<b>XXX</b>
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<sup>2)</sup> FKM sealings are only suitable for pressure ranges up to 0-16 bar.

