

OEM Pressure Transducer

ECONOMY

Hex 24 with ratiometric output signal up to 600 bar



- Compact and solid design
- Up to 6x overpressure safety ¹⁾
- Excellent price/performance ratio ²⁾
- Overvoltage protection up to 28 VDC
- Diagnostic function according fail-safe
- Very low temperature drift in the range -40°C ... +125°C



¹⁾ For pressure ranges up to 0 - 100 bar.

²⁾ Automated batch production and calibration. Available from min. 1,000 pieces. Smaller quantities depending on design and requirements.

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Technical data



0606	
Output signal:	0.5 ... 4.5 V ratiometric (3-wire)
Supply voltage U_B :	5 VDC \pm 10 % (max. 6.5 VDC)
Idle current consumption I:	typ. 8.5 mA (max. 13 mA)
Load current resistance R_L ¹⁾ :	4.7 - 680 k Ω

Pressure ranges in bar							
Standard pressure ranges p_{nom} :	0 - 40 bar	0 - 60 bar	0 - 80 bar	0 - 100 bar	0 - 250 bar	0 - 400 bar	0 - 600 bar
Overpressure protection p_U ²⁾ :	250 bar	400 bar	500 bar	600 bar	750 bar	750 bar	800 bar
Burst pressure ²⁾ :	400 bar	600 bar	800 bar	1,000 bar	1,200 bar	1,500 bar	1,800 bar

Pressure ranges in PSI							
Standard pressure ranges p_{nom} :	0 - 600 PSI	0 - 1,000 PSI	0 - 1,200 PSI	0 - 1,500 PSI	0 - 3,000 PSI	0 - 6,000 PSI	0 - 8,700 PSI
Overpressure protection p_U ²⁾ :	3,600 PSI	6,000 PSI	7,200 PSI	9,000 PSI	10,500 PSI	10,500 PSI	11,600 PSI
Burst pressure ²⁾ :	6,000 PSI	9,000 PSI	12,000 PSI	14,500 PSI	17,400 PSI	21,700 PSI	26,100 PSI

Mechanical life expectancy:	> 10,000,000 pulsations at rise rates to 5,000 bar/s at p_{nom}						
Permitted pressure change rate:	\leq 5,000 bar/s						
Accuracy ³⁾ :	\pm 0.5 % full scale (FS) at room temperature, \pm 0.25 % BFSL						
Long-term stability:	\pm 0.2 % (<100 bar) / \pm 0.1 % full scale (FS) per year						
Repeatability ⁴⁾ :	\pm 0.2 % (<100 bar) / \pm 0.1 % full scale (FS)						
Temperature error ⁴⁾ :	\pm 0.0125 % full scale (FS) / $^{\circ}$ C						
Compensated temperature range:	0 $^{\circ}$ C ... +100 $^{\circ}$ C (-32 $^{\circ}$ F ... 212 $^{\circ}$ F)						
Temperature range ambient:	-40 $^{\circ}$ C ... +125 $^{\circ}$ C (-40 $^{\circ}$ F ... 248 $^{\circ}$ F)						
Temperature range media:	-40 $^{\circ}$ C ... +125 $^{\circ}$ C (-40 $^{\circ}$ F ... 248 $^{\circ}$ F)						
Wetted parts material	Housing:	Stainless steel 1.4306 / AISI 304L					
	Measuring cell:	Stainless steel 1.4542 / AISI 630 / 17-4PH [®]					
Overvoltage protection:	18 VDC (\leq 2 h at 140 $^{\circ}$ C) / 26 VDC (\leq 1 min)						
Response time 10 - 90 %:	\leq 1 ms						
Power-on time:	50 ms						
Vibration resistance:	20 ... 2,500 Hz (15 ... 45 g) acc. to IEC 60068-2-6						
Shock resistance:	500 m ² /s half sine (11 ms) acc. to IEC 60068-2-27						
Protection class:	IPxx according manufacturer's specification (see p. 146), only when plugged in, otherwise IP00						
Electromagnetic compatibility ⁵⁾ :	EN 61000-4-2: 2009, EN 61000-4-3:2006 + A1:2008 +A2:2010, EN 61000-4-4: 2012, EN 61000-4-6: 2014, EN 61000-4-8: 2009, EN 61000-4-2: 2009, EN 55011: 2018						
Recommended length of connection cable:	30 m						
Protection against reverse polarity and short-circuit:	Build-in						
Weight:	approx. 35 - 55 g						

¹⁾ Pull-up to V_B or pull-down to GND; 680k \pm 20 % Pull-up to V_{Bst}
²⁾ Static pressure. Dynamic value 30 to 50% lower. Values refer to the hydraulic / pneumatic part of the pressure transmitter.
³⁾ For pressure range 0 - 600 bar \pm 1.0 % full scale (FS) at room temperature, \pm 0.5 % BFSL.
⁴⁾ Within the compensated temperature range.
⁵⁾ If necessary for a specific application, surge protection must be provided by the user.



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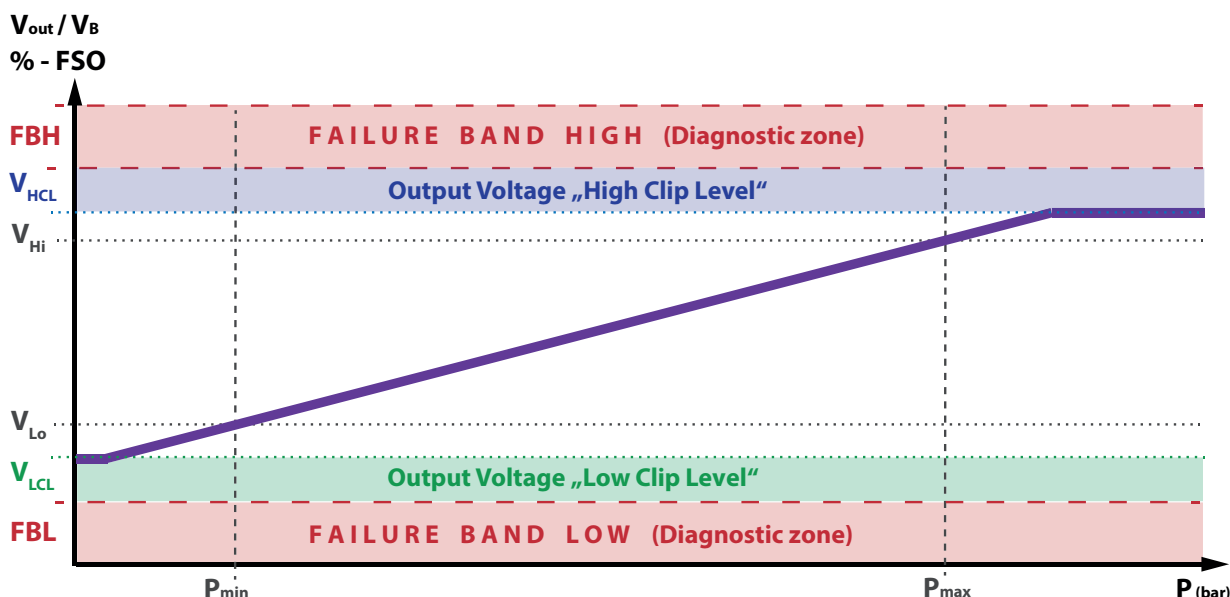
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Diagnostic function

The **failure bands high** and **low (FBH & FBL)** are areas of the output signal into which the pressure transducer transitions in the event of an error and thus assumes a safe state. A control logic can thus detect faults in the sensor or the connecting line.

The pressure transducer has an output signal limitation upwards and downwards. This means that **pressures above the upper limit value (V_{HCL})** and **below the lower limit value (V_{LCL})** are output as a constant output signal according to the set values. Without limiting, the transducer would output up to the failure band limit in the event of overpressure or underpressure.

Ex works, the ranges of the failure bands and the signal limitation are set according specification (see "Technical data"). These can be adjusted at the customer's request.



The following diagnostic functions are available:

No.	GND	U_{V+}	U_{out}	Measured output	After wrong connection
1	nc	5 V	pull-down or pull-up	FBH	operational in specification
2	0 V	nc	pull-down or pull-up	FBL	operational in specification
3	0 V	5 V	nc	FBH	operational in specification
4	0 V	5 V	0 V	FBL	operational in specification
5	0 V	5 V	5 V	FBH	operational in specification
6	5 V	0 V	pull-down or pull-up		operational in specification
7 ¹⁾	0 V	18 V	pull-down or pull-up	FBH or FBL	operational in specification
8 ¹⁾	0 V	5 V	18 V	18 V	operational in specification
9	0 V	0 V	pull-down or pull-up	FBL	operational in specification
10	5 V	5 V	pull-down or pull-up	FBH	operational in specification
11 ²⁾	27 V	0 V			operational in specification
12 ²⁾	0 V	28 V			operational in specification
13 ²⁾	0 V	5 V	26 V		operational in specification
14	All short circuits and/or interruptions at the sensor measuring bridge lead to FBL				

¹⁾ Cases 7 and 8 must withstand 18 VDC for 2 h at 140°C.

²⁾ Cases 11, 12 and 13 must withstand 26...28 VDC for 1 min at room temperature.

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Electrical connectors and threads



AMP Superseal 1.5

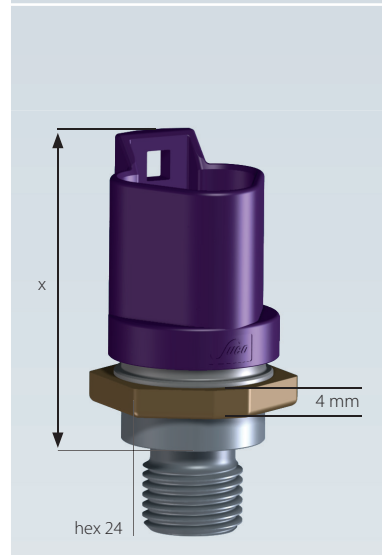
Pin	0606
1	U_{out}
2	Gnd
3	U_{V+}
IP67	
$x \sim 36$ mm	
Connection code: 007	

Deutsch DT04 - 4P

Pin	0606
1	Gnd
2	U_{V+}
3	nc
4	U_{out}
IP67, IP6K9K	
$x \sim 38$ mm	
Connection code: 008	

Packard MetriPack 150

Pin	0606
1	Gnd
2	U_{V+}
3	U_{out}
IP67	
$x \sim 44$ mm	
Connection code: 009	



Deutsch DT04 - 3P

Pin	0606
A	U_{V+}
B	Gnd
C	U_{out}
IP67, IP6K9K	
$x \sim 39$ mm	
Connection code: 010	

AMPSEAL 16

Pin	0606
1	U_{V+}
2	Gnd
3	U_{out}
IP67	
$x \sim 37$ mm	
Connection code: 016	

G 1/4 (1179-2 / DIN 3852-E)

4.7
12
Sealing ring
G1/4 DIN
EN ISO 1179-2
(DIN 3852-11)
form E

Thread code: 41

G 3/8 (ISO 1179-2 / DIN 3852-A)

5.3
11
Sealing ring
G3/8 DIN
EN ISO 1179-2
(DIN 3852-11)
form A

Thread code: 66

NPT 1/4

2.7
14
NPT 1/4
(conical)

Thread code: 09

9/16-18 UNF

6.7
10
9/16-18 UNF

Thread code: 21

M12 x 1.5

4.7
12
M12 x 1.5

Thread code: 02



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Order Matrix

	Type	Pressure range	Pressure connection	Pressure unit	Electrical connection
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0.5 - 4.5 V, 3-wire	0606
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Pressure range in bar

0 - 40 bar	401
0 - 60 bar	601
0 - 80 bar	801
0 - 100 bar	102
0 - 250 bar	252
0 - 400 bar	402
0 - 600 bar	602

Pressure range in PSI

0 - 600 PSI	602
0 - 1,000 PSI	103
0 - 1,200 PSI	123
0 - 1,500 PSI	153
0 - 3,000 PSI	303
0 - 6,000 PSI	603
0 - 8,700 PSI	873

B

P

Pressure connection

M12 x 1,5	02
NPT 1/4	09
9/16-18 UNF	21
G1/4 - DIN EN ISO 1179-2 (DIN 3852-11), form E	41
G3/8 - DIN EN ISO 1179-2 (DIN 3852-11), form A	66

Pressure unit

bar	B
PSI	P

Electrical connection

AMP Superseal 1.5	007
Deutsch DT04-4P	008
Packard MetriPack150	009
Deutsch DT04-3P	010
AMPSEAL 16	016

Article number	0606	-	XXX		XX	-	X	-	XXX
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