

## Pressure transducer model T2

Affordable performance in a durable, compact package

Accuracy 0,25 % (BFSL)

1 % Total Error Band (TEB)

### Features

- Broad temperature capability
- All-welded pressure connection
- High EMI/RFI rating
- Housing IP65 rated
- Excellent long term stability
- Choice of electrical connections

### Ranges

-1 ... 2 bar up to 0 ... 1400 bar

-30 in. Hg ... 30 psi up to 0 ... 20.000 psi

### Applications

- Process automation
- Compressor control
- Hydraulic systems
- Engine Monitoring
- Pump control
- Pneumatics
- Refrigeration equipment
- Presses



Technical specification	T2
Measuring principle	Polysilicon thin film sensor, electron beam welded to pressure fitting, signal conditioning by high performance ASIC and modern digital compensation techniques
Range [bar]	2 2,5 4 6 10 16 25 40 60 100 160 250 400 600
Overpressure limit [bar]	6 6 8 12 20 32 50 80 120 200 320 500 600 720
Burst pressure [bar]	30 30 40 60 100 160 250 400 517 517 700 1000 1700 2500
Range [bar]	1000 1400 -1/2 -1/3 -1/5 -1/9 -1/15 -1/19
Overpressure limit [bar]	1200 1680 6 6 12 20 32 40
Burst pressure [bar]	2900 3300 30 30 60 100 160 200
Pressure type	Gauge, compound
Process connection	G 1/4 B male according EN 837-1, 1/4" BSP straight 1/8 NPT male, 1/4 NPT male according ANSI/ASME B1.20.1/EN 837-1 7/16-20 SAE male
Material	
Process connection	Stainless steel 304 (1.4301)
Sensor	Stainless steel 17-4PH (1.4542/1.4548)
Case	20 % glass reinforced nylon, fire retardant to UL94 V1
Power supply	9 ... 36 VDC (14 ... 36 VDC for output 0 ... 10 VDC), reverse polarity and miswire protected
Output signal	4 ... 20 mA, 2-wire 0,5 ... 4,5 VDC ratiometric, 3-wire 0 ... 5/10 VDC, 1 ... 5/6 VDC, 3-wire
Maximum loop resistance for 4 ... 20 mA	≤ (U <sub>B</sub> - 9 V) / 0,022 A
Isolation between case and electrical connection	> 100 MΩ at 100 VDC
Isolation voltage	100 VAC
Supply current	5 mA for output 0 ... 5/10 VDC, 4 mA for output 1 ... 5/6 VDC, 3,5 mA for output 0,5 ... 4,5 VDC
Accuracy (BFSL)	0,25 % at 21 °C reference temperature
Total Error Band (TEB)	1 % F.S., including non-linearity, hysteresis, non-repeatability and temperature error from -20 ... 85 °C 1,5 % F.S., incl. non-linearity, hysteresis, non-repeatability and temp. error from -40 ... -20 °C/85 ... 125 °C
Non-linearity (BFSL)	≤ ±0,1 % F.S. typical
Non-repeatability	≤ ±0,03 % F.S. typical
Hysteresis	≤ ±0,01 % F.S. typical
Stability	≤ ±0,25 % F.S. / year
Response time (10 ... 90 %)	≤ 1 ms
Warm-up time	≤ 500 ms
Permissible	
Operation temperature	-40 ... 125 °C
Medium temperature	-40 ... 125 °C
Storage temperature	-40 ... 125 °C
Humidity	0 ... 100 % R.H., no effect
Vibration	Random vibration (20 g) over temperature range -40 ... 125 °C, exceeds typical MIL.STD. requirements
Shock resistance	100 g / 6 ms
Durability	Tested to 5 x 10 <sup>7</sup> cycles
Drop test	Withstands 1 meter on concrete 3 axis
Position effect	≤ ±0,01 % F.S. typical
CE-mark/EMC	Per EN 61326 (1997) + A1 (1998) + A2 (2001) – Annex A (Heavy Industrial)
Electrical connection	Hirschmann GDN 3099 acc. DIN 43650-A, Bendix style 4 pin, M12x1 4 pin, shielded cable
Protection according EN 60 529/IEC 529	IP65, NEMA 4X
Weight [kg]	0,1
Accessories, options	Valves, digital indicator

All specifications are subject to change without notice.

**General dimensions [mm]**

**SHIELDED CABLE**

PVC Jacket, 3' Length  
Standard, 24 AWG Leads

**BENDIX (CIRCULAR)**

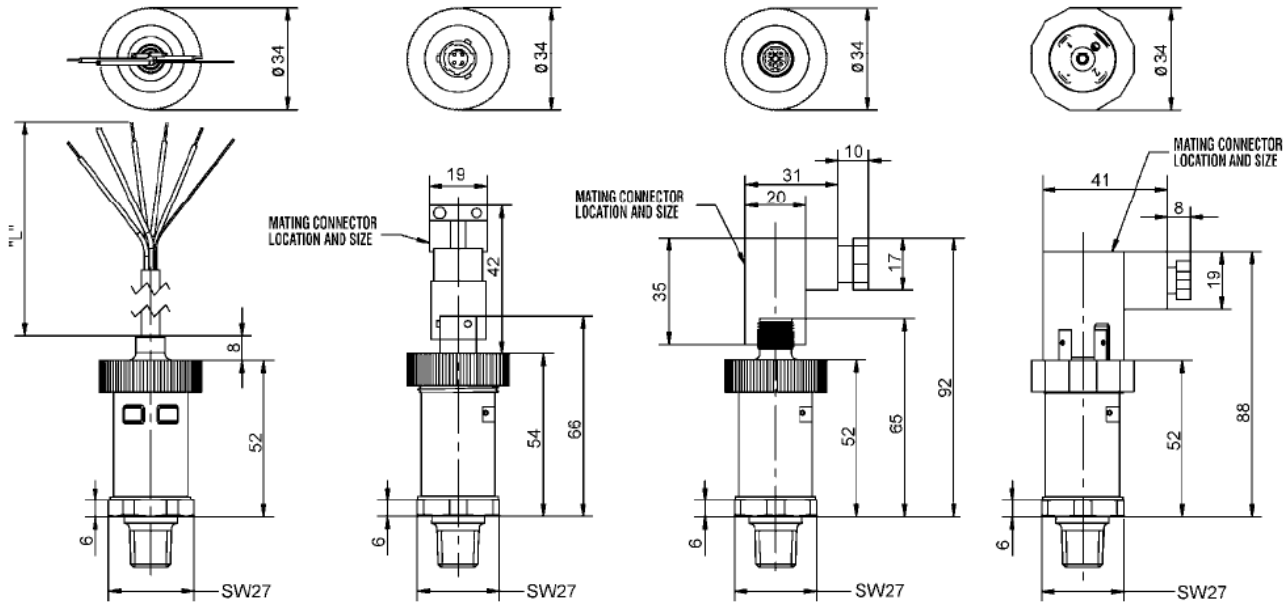
Mates to Amphenol  
PTO6A-8-4S-SR or similar

**M12**

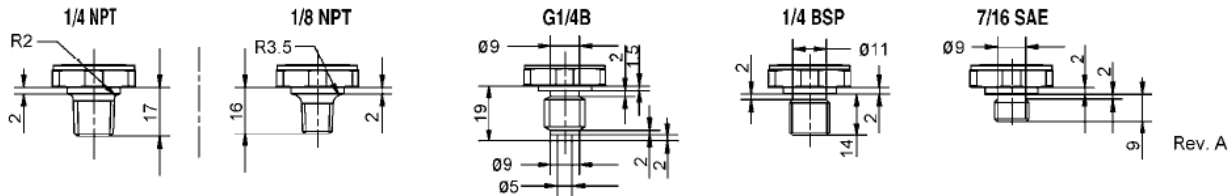
Mates to Hirschmann  
933 172-100 or similar

**DIN FORM-A**

Mates to Hirschmann  
GDN 3099 or similar



**PROCESS CONNECTIONS**



**Order information**

Type	Accuracy	Process connection	Output signal	Electrical connection	Range	Eng. units	Pressure type	Options	
T2	(7) 1 % TEB (-20...85 °C) 1,5 % TEB (-40...20 °C, 85...125 °C)	(M01) 1/8 NPT male	(05) 0/5 VDC	DIN 43650-A series (DN) No mating connector	0/ 2 0/ 2,5	BAR	(G) gauge	(NH) Tagging wired	
		(M02) 1/4 NPT male	(10) 0/10 VDC	(D0) Mating connector with no cable	0/ 4				
			(15) 1/5 VDC	(D1) Mating connector with customer specified cable <sup>1)</sup>	0/ 6				
		(MEK) 7/16-20 SAE male	(16) 1/6 VDC	(E0) Mating connector with no cable	0/ 10 0/ 16				
			(42) 4/20 mA	(E1) Mating connector with customer specified cable <sup>1)</sup>	0/ 25 0/ 40				
		(MG2) G 1/4 B male	(RM) 0,5/4,5 VDC ratio metric to 5 VDC supply	(E0) Mating connector with no cable	(EW) No mating connector				0/ 60 0/ 100 0/ 160
					(E1) Mating connector with customer specified cable <sup>1)</sup>				0/ 250 0/ 400 0/ 600 0/ 1000 0/ 1400
		(MS2) 1/4-19 BSP male			Bendix, 4pin (B4) No mating connector				-1/ 2 -1/ 3 -1/ 5
					(H1) Mating connector with no cable				-1/ 9 -1/ 15 -1/ 19
					(P2) Mating connector with customer specified cable <sup>1)</sup>				
			Shielded Cable (F2) 1 m shielded cable						
			(P1) Customer spec. <sup>1)</sup>						
		others on request				psi and others on request			

**Order example**

Type	Accuracy	Process connection	Output signal	Electrical connection	Range	Engineering unit	Pressure type	Options
T2	7	MG2	42	D0	0/25	BAR	G	-