

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



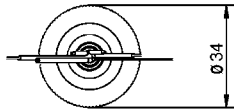
Technical specification	T2
Measuring principle	Polysilicon thin film sensor, electron beam welded to pressure fitting, signal conditioning by high performance ASIC and modern digital compensation techniques
Range [bar]	2 2,5 4 6 10 16 25 40 60 100 160 250 400 600
Overpressure limit [bar]	6 6 8 12 20 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	$\leq (U_B - 9 V) / 0,022 A$
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)	$\leq \pm 0,1$ % F.S. typical
Non-repeatability	$\leq \pm 0,03$ % F.S. typical
Hysteresis	$\leq \pm 0,01$ % F.S. typical
Stability	$\leq \pm 0,25$ % 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 5×10^7 cycles
Drop test	Withstands 1 meter on concrete 3 axis
Position effect	$\leq \pm 0,01$ % 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]

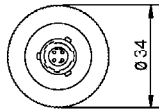
SHIELDED CABLE

PVC Jacket, 3' Length
Standard, 24 AWG Leads



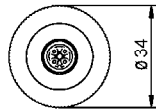
BENDIX (CIRCULAR)

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



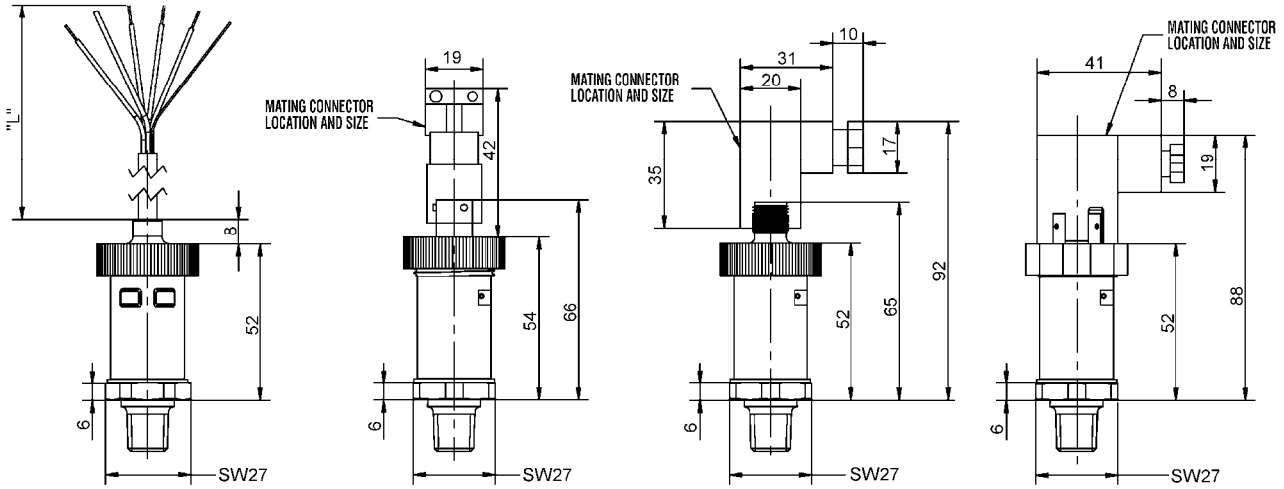
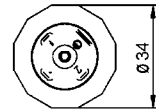
M12

Mates to Hirschmann
933 172-100 or similar

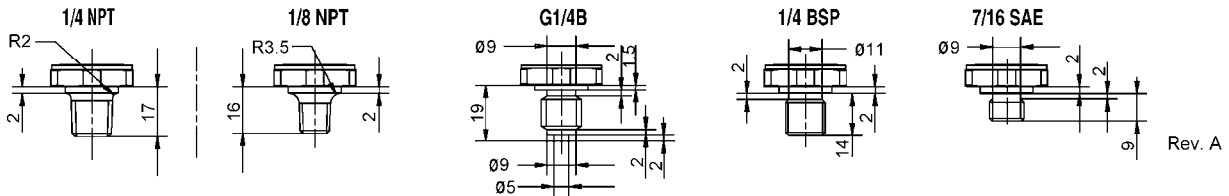


DIN FORM-A

Mates to Hirschmann
GDN 3099 or similar



PROCESS CONNECTIONS



Rev. A

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 0/ 6							
			(15) 1/5 VDC	(D1) Mating connector with customer specified cable ¹⁾	0/ 10 0/ 16 0/ 25							
			(16) 1/6 VDC	(E0) Mating connector with no cable	0/ 40 0/ 60							
			(42) 4/20 mA	(E1) Mating connector with customer specified cable ¹⁾	0/ 100 0/ 160 0/ 250 0/ 400 0/ 600 0/ 1000 0/ 1400							
			(MEK) 7/16-20 SAE male	(RM) 0,5/4,5 VDC ratio metric to 5 VDC supply	(H1) Mating connector with no cable				-1/ 2 -1/ 3 -1/ 5			
				(MG2) G 1/4 B male	(P2) Mating connector with customer specified cable ¹⁾				-1/ 9 -1/ 15 -1/ 19			
		(MS2) 1/4-19 BSP male		Shielded Cable (F2) 1 m shielded cable (P1) Customer spec. ¹⁾								
		others on request		¹⁾ specify cable lengths "L" in [m]							psi and others on re- quest	

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	-

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