

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



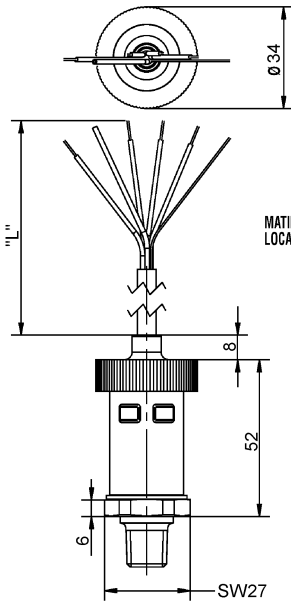
Technical specification	T2
Measuring principle	Polysilicon thin film sensor, electron beam welded to pressure fitting, signal conditioning by high performance ASIC and modern digital compensation techniques
Range [bar]	2 2,5 4 6 10 16 25 40 60 100 160 250 400 600
Overpressure limit [bar]	6 6 8 12 20 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 Sensor Case
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	$\leq (U_B - 9 \text{ V}) / 0,022 \text{ A}$
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 %)	$\leq 1 \text{ ms}$
Warm-up time	$\leq 500 \text{ ms}$
Permissible	Operation temperature Medium temperature Storage temperature Humidity
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 $5 \times 10^7$ 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]

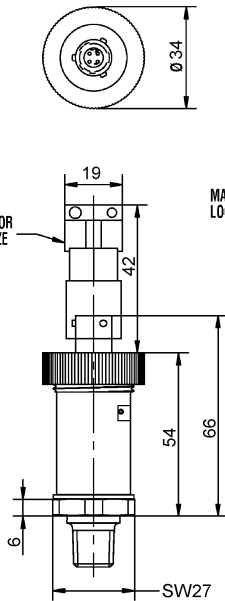
### SHIELDED CABLE

PVC Jacket, 3' Length  
Standard, 24 AWG Leads



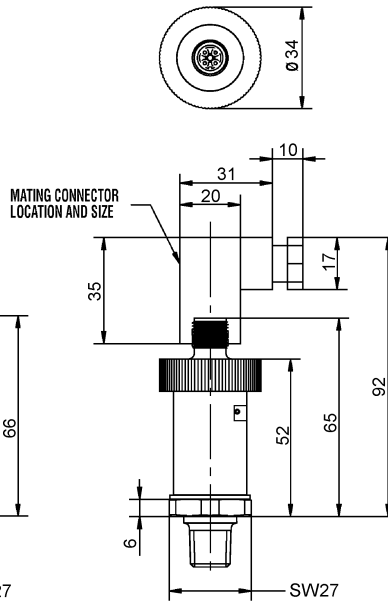
### BENDIX (CIRCULAR)

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



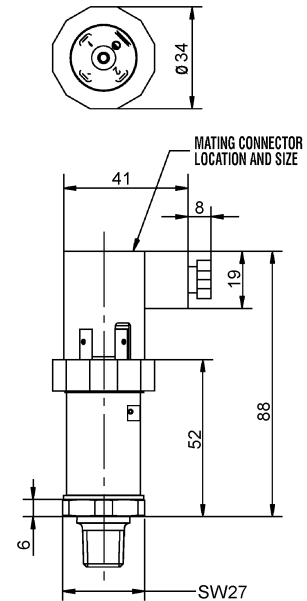
### M12

Mates to Hirschmann  
933 172-100 or similar

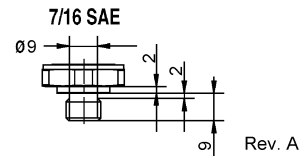
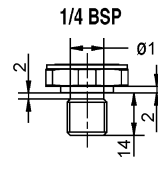
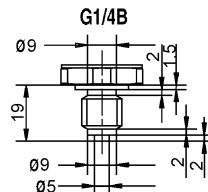
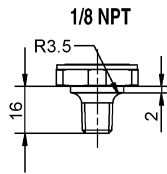
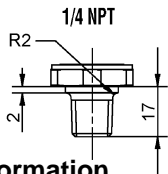


### DIN FORM-A

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	0/ 2	BAR	(G) gauge	(NH) Tagging wired
		(M02) 1/4 NPT male	(10) 0/10 VDC	(DN) No mating connector	0/ 2,5			
			(15) 1/5 VDC	(D0) Mating connector with no cable	0/ 4			
				(D1) Mating connector with customer specified cable <sup>1)</sup>	0/ 6			
				(16) 1/6 VDC				
			(MEK) 7/16-20 SAE male	(42) 4/20 mA	M12x1, 4pin			
		(EW) No mating connector			0/ 25			
		(MG2) G ¼ B male	(RM) 0,5/4,5 VDC ratio metric to 5 VDC supply	(E0) Mating connector with no cable	0/ 40			
				(E1) Mating connector with customer specified cable <sup>1)</sup>	0/ 60			
		Bendix, 4pin		0/ 100				
		(B4) No mating connector		0/ 160				
		(H1) Mating connector with no cable		0/ 250				
		(P2) Mating connector with customer specified cable <sup>1)</sup>		0/ 400				
		Shielded Cable		0/ 600				
		(F2) 1 m shielded cable		0/ 1000				
		(P1) Customer spec. <sup>1)</sup>		0/ 1400				
	-1/ 2							
	-1/ 3							
	-1/ 5							
	-1/ 9							
	-1/ 15							
	-1/ 19							
		psi and others on request						
	others on request		<sup>1)</sup> specify cable lengths "L" in [m]					

## 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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