

Data Sheet

T2 Pressure Transmitter

FEATURES

- Numerous ranges, process connections/electrical terminations, and outputs available (STD.)
- All stainless steel wetted parts
- Proven polysilicon film sensor
- All welded construction

TYPICAL USES

- Process automation
- Compressor control
- Hydraulic systems
- Engine monitoring
- Pump control
- Pneumatics
- Refrigeration equipment
- Presses
- Machine tools
- Other general industrial applications



T2
Pressure Transmitter



PERFORMANCE SPECIFICATIONS

Reference Temperature:	72 °F (22 °C)
Accuracy Class (BFSL):	±0.25% of span
Total Error Band Accuracy (TEB):	±1% of Span: From -20 to 85 °C (-4 to 185 °F) ±1.5% of Span: From -40 to -20 °C (-40 to -4 °F) ±1.5% of Span: From 85 to 125 °C (185 to 257 °F) Includes the combined effects of non-linearity (Terminal Point Method), hysteresis, non-repeatability, temperature and zero offset and span setting errors
Durability:	50 million cycles
Stability:	≤±0.25% span/year at reference conditions

ENVIRONMENTAL SPECIFICATIONS

Temperature Limits:	Storage: -40 °F to 257 °F (-40 °C to 125 °C) Operating: -40 °F to 257 °F (-40 °C to 125 °C) Compensated: -40 °F to 257 °F (-40 °C to 125 °C)
Humidity Effects:	No performance effects from 0-100% R.H.

KEY BENEFITS

- Broad temperature capability
- High EMI/RFI immunity ratings
- High performance ASIC based electronics
- Superior long-term stability and repeatability

FUNCTIONAL SPECIFICATIONS

Response Time:	<1 ms
Pressure Ranges:	Compound and gauge pressure, 30 to 20,000 psi
Shock:	100 gs, 6 ms
Vibration:	Random vibration (20 g) over temperature range -40 °F to 257 °F (-40 °C to 125 °C). Exceeds typical MIL. (STD.) requirements
Position Effect:	<±0.01% span, typical
Overpressure:	Proof: Burst: ≤750 psi 2 X Range 10 X Range ≥1,000 to ≤4,000 psi 2 X Range 5 X Range ≥5,000 to ≤7,500 psi 1.2 X Range 5 X Range ≥10,000 to ≤20,000 psi 1.2 X Range 2.4 X Range
Drop Test:	Withstands 1 meter on concrete 3 axis
Warm-up Time:	<500 msec, typical

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ELECTRICAL SPECIFICATIONS

Output: Supply Voltage Supply Current

0-5 Vdc (3 Wire) 9 Vdc to 36 Vdc 5 mA

0-10 Vdc (3 Wire) 14 Vdc to 36 Vdc 5 mA

1-5 Vdc, 1-6 & 0.5-4.5 Vdc (3 Wire) 9 Vdc to 36 Vdc 4 mA

0.5-4.5 Vdc, 3 Wire (Ratiometric) 5 Vdc ± 0.5 Vdc 3.5 mA

4-20 mA (2 Wire) 9 Vdc to 36 Vdc

Insulation Breakdown Voltage: >100 M Ω @ 100 Vdc

Circuit Protection: Reverse polarity and mis-wire protected

Insulation Resistance: 100 M Ω @ 30 Vdc

PHYSICAL SPECIFICATIONS

Environmental Ingress rating NEMA 4X, IP65
Rating:

WETTED MATERIAL

Diaphragm 17-4PH Stainless Steel

Process Connection 304 Stainless Steel

NON-WETTED

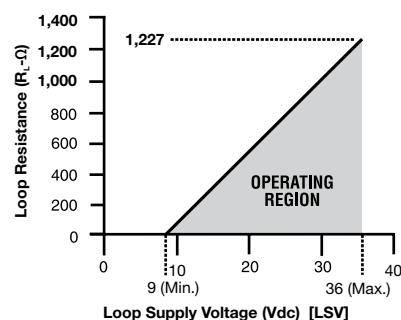
Housing 20% Glass Reinforced Nylon,
Fire retardant to UL94 V1

OPTIONAL FEATURES

Calibration Report: 9 pt. [Traceable calibration certificate](#)

Consult factory for: Throttle plugs and Cleaned for Oxygen services

LOAD LIMITATIONS 4-20 mA OUTPUT ONLY



To Determine Min. loop supply voltage: $LSV_{min} = 9(V) + [0.022(A) \cdot R_L]$

Where:

LSV = Loop Supply Voltage (Vdc)

$R_L = R_s + R_w$ (ohms)

R_L = Loop Resistance (ohms)

R_s = Sense Resistance (ohms) [Measuring Instrument]

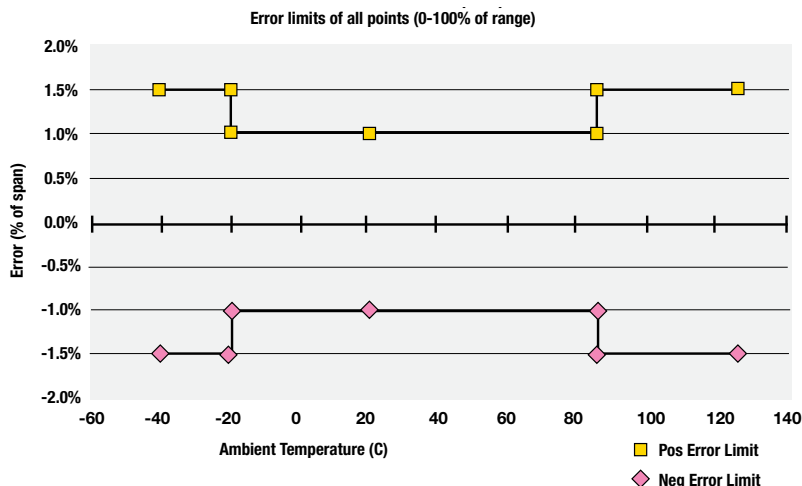
R_w = Wiring Resistance (ohms)

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ORDERING CODE	Example:	T2	7	M01	42	DN	60#	G	XTU
Model									
T27 - T2 Series, 1.0% Total Error Band (-20°C/85°C), 1.5% Total Error Band (-40°C/-20°C), (85°C/125°C)		T2	7						
Pressure Connection Size									
M01 - 1/8 NPT Male				M01					
M02 - 1/4 NPT Male									
MEK - 7/16 20 SAE #4 Male, not UL recongized over 10,000 psi range									
MEV - 9/16-18 SAE #6 Male w/Buna-N O-ring, not UL recognized over 10,000 psi range									
MS2 - 1/4-19 bsp Male, not UL recognized over 10,000 psi range									
MG2- G 1/4 B Male									
Output Signal									
05 - 0-5 Vdc									
10 - 0-10 Vdc									
15 - 1-5 Vdc									
16 - 1-6 Vdc									
42 - 4-20 mA					42				
RM - 0.5-4.5 Vdc Ratiometric to 5 Vdc supply									
Electrical Termination									
EN 175301-803, Form A (DIN 43650 Form A - Mates to Hirschmann® GDM 3009 or similar)									
DN - No mating connector						DN			
D0 - W/mating connector, no cable									
D2 - W/mating connector, 3 feet of shielded cable									
Electrical Connection									
M12 (4-Pin) - Mates to Hirschman 933-172-100 or similar									
EW - No mating connector									
EO - W/mating connector, no cable									
E2 - W/mating connector, 3 feet of shielded cable									
Circular 4 Pin - Mates to Bendix® PT06A-8-4S-SR or similar									
B4 - No mating connector									
H1 - W/mating connector, no cable									
L1 - W/mating connector, 3 feet of shielded cable									
Pigtail - Shielded cable with PVC jacket and 24 AWG leads									
F2 - W/3 feet cable length									
F3 - W/10 feet of cable length									
P1 - Customer specified length									
Pressure Range (see range table on page 4)									
60# - 60 psi							60#		
Measurement Type									
G - Gauge								G	
Option (if including an option(s) must include an "X")									
TU - Throttle Plug									X
6B - Cleaned for oxygen service									TU
RH - 9 point Traceable calibration certificate									

TOTAL ERROR BAND (TEB)



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RANGE TABLE			
	Range	Code	Notes
Compound	30 psi/-14.7 psi	30#&vac	
	45 psi/-14.7 psi	45#&vac	
	60 psi/-14.7 psi	60#&vac	
	85 psi/-14.7 psi	85#&vac	
	100 psi/-14.7 psi	100#&vac	
	150 psi/-14.7 psi	150#&vac	
	200 psi/-14.7 psi	200#&vac	
	300 psi/-14.7 psi	300#&vac	
Positive Pressure	500 psi/-14.7 psi	500#&vac	
	30 psi	30#	
	50 psi	50#	
	60 psi	60#	
	100 psi	100#	
	150 psi	150#	
	200 psi	200#	
	250 psi	250#	
	300 psi	300#	
	400 psi	400#	
	500 psi	500#	
	750 psi	750#	
	1,000 psi	1000#	
	1,500 psi	1500#	
	2,000 psi	2000#	
	3,000 psi	3000#	
	5,000 psi	5000#	
	6,000 psi	6000#	
	7,500 psi	7500#	
	10,000 psi	10000#	
	15,000 psi	15000#	Only available with M01, M02, MG2, process connections
	20,000 psi	20000#	Only available with M01, M02, MG2, process connections

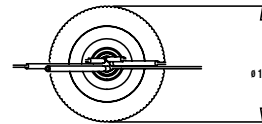
bar, kPa, and mPa ranges also available

DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

Shielded Cable

PVC Jacket, 3' Length
Standard, 24 AWG Leads



Din Form-A

Mates to Hirschmann
GDM 3009 or similar

