

OEM Pressure transducer model G2

Affordable performance in a durable, compact package
Accuracy 1 % Total Error Band (TEB)

Features

- Broad temperature capability
- All-welded pressure connection
- High EMI/RFI rating
- Housing IP67 rated
- Excellent long term stability
- Diagnostic rails

Ranges

-1 ... 2 bar up to 0 ... 1400 bar
-30 in. Hg ... 30 psi up to 0 ... 20.000 psi

Applications

- Off-road equipment
- Construction machinery
- Compressor control
- HVAC and refrigeration
- Agricultural implements
- Process automation and control
- Hydraulic and pneumatic sensing
- Pump monitoring

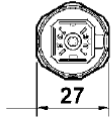


Technical specification	G2
Measuring principle	Polysilicon thin film sensor, electron beam welded to pressure fitting, signal conditioning by high performance ASIC and modern digital compensation techniques
Range in psi	30 45 60 100 150 200 300 500 750 1000 1500 2000 3000
Overpressure limit in psi	90 90 120 200 300 400 600 1000 1500 2000 3000 4000 6000
Burst pressure in psi	450 450 600 1000 1500 2000 3000 5000 7500 7500 7500 10000 15000
Range in (in Hg)/psi	5000 7500 10000 20000 -30/30 -30/45 -30/60 -30/85 -30/100 -30/150 -30/200 -30/300
Overpressure limit in psi	7500 9000 12000 24000 90 90 120 200 200 300 400 600
Burst pressure in psi	25000 37500 24000 48000 450 450 600 1000 1000 1500 2000 3000
Pressure type	Gauge, compound
Process connection	G ¼ B male according EN 837-1, ¼" BSP straight 1/8 NPT male, ¼ 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 _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	1 % F.S., including non-linearity, hysteresis, non-repeatability and temperature error from -20 ... 85 °C
Total Error Band (TEB)	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
Durability	Tested to 5*10 ⁷ cycles
Vibration	Random vibration (20 g) over temperature range -40 ... 125 °C, exceeds typical MIL.STD. requirements
Shock resistance	100 g / 6 ms
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 G series acc. DIN EN 61984, Metri-Pack 150 Series connector, shield cable, flying leads
Protection according EN 60 529/IEC 529	IP65, NEMA 4X, optional IP67
Weight in kg	0,1
Accessories, options	Diaphragm seals, valves, digital indicator

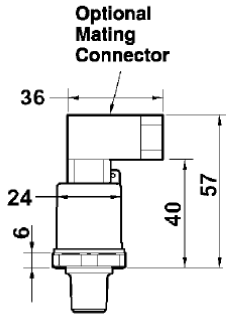
All specifications are subject to change without notice.

General dimensions in mm

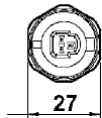
MINI HIRSCHMANN**



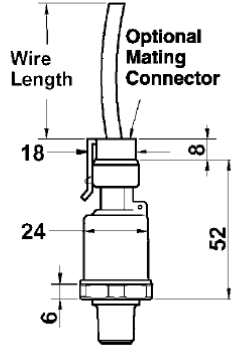
Mates to Hirschmann G4W1F connector or similar



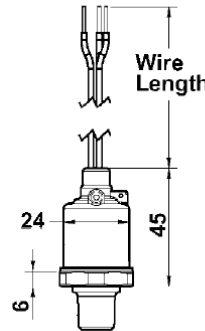
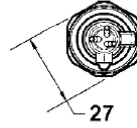
3-PIN METRI-PACK*



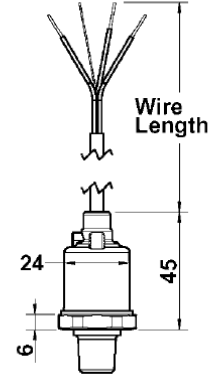
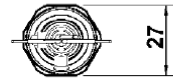
Mates to Metri-Pack Connector Body 12065286



FLYING LEADS
1 Meter, 18 AWG

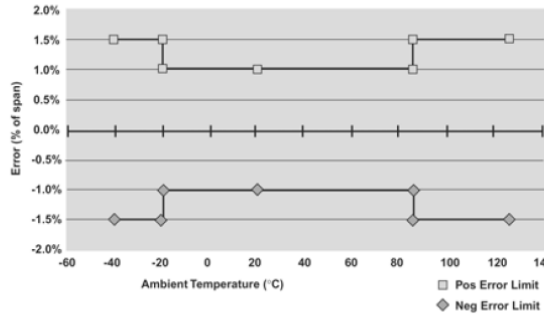


SHIELDED CABLES
1 Meter, PVC Jacket, 24 AWG

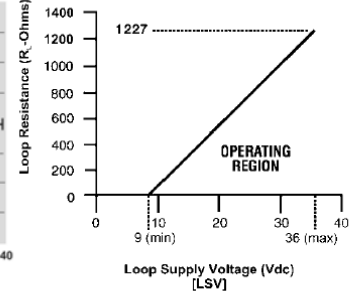


A 1 % Total Error Band accuracy is accomplished by marrying a high performance ASIC to a very stable, field proven polysilicon thin film pressure sensor. The sensor is electron beam welded to a pressure fitting of stainless steel, which provides excellent overpressure capability and outstanding durability in the presence of shock and vibration. The integrity of the G2 is further enhanced by circuitry which is held securely within an internal cage and housed in a durable enclosure of reinforced Nylon.

TOTAL ERROR BAND (TEB)
Error limits of all points (0-100% of range)



Power Supply Voltage vs. Loop Resistance
(4-20mA ONLY)



Order information

Type	Accuracy	Process connection	Output signal	Electrical connection	Range	Engineering units	Pressure type	Options	
G2	(7) 1 % TEB (-20...85 °C) 1,5 % TEB (-40...20 °C, 85...125 °C)	(M01) 1/8 NPT male	(05) 0/5 VDC	Metri-Pack	0/ 30	PSI	(G) gauge	(NH) Tagging wired	
		(M02) 1/4 NPT male	(10) 0/10 VDC	(GN) No mating connection	0/ 45				
			(MEK) 7/16-20 SAE male	(15) 1/5 VDC	(G2) Mating connector with 1 m cable				0/ 60
		(MG2) G 1/4 B male		(16) 1/6 VDC	(G1) Mating connector with customer specified cable ¹⁾				0/ 100
				(MS2) 1/4-19 BSP male	(42) 4/20 mA				(Hirschmann G series)
		(RM) 0,5/4,5 VDC ratio metric to 5 VDC supply	(HM) No mating connection		0/ 200				
		(M1) Mating connector with no cable	0/ 300						
			(M2) Mating connector with 1 m cable		0/ 500				
		(P9) Mating connector with customer specified cable ¹⁾			0/ 750				
			0/ 1000						
0/ 1500									
0/ 2000									
0/ 3000									
0/ 5000									
0/ 7500									
0/ 10000									
0/ 20000									
				Flying Leads	30&VAC	bar and others on request			
				(W2) 1 m flying leads	45&VAC				
				(W9) Customer specified ¹⁾	60&VAC				
				Shielded Cable	85&VAC				
				(F2) 1 m shielded cable	100&VAC				
				(P1) Customer specified ¹⁾	150&VAC				
					200&VAC				
					300&VAC				

Order example

Type	Accuracy	Process connection	Output signal	Electrical connection	Range	Engineering unit	Pressure type	Option
G2	7	MG2	42	M1	0/100	PSI	G	NH

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