

Data Sheet

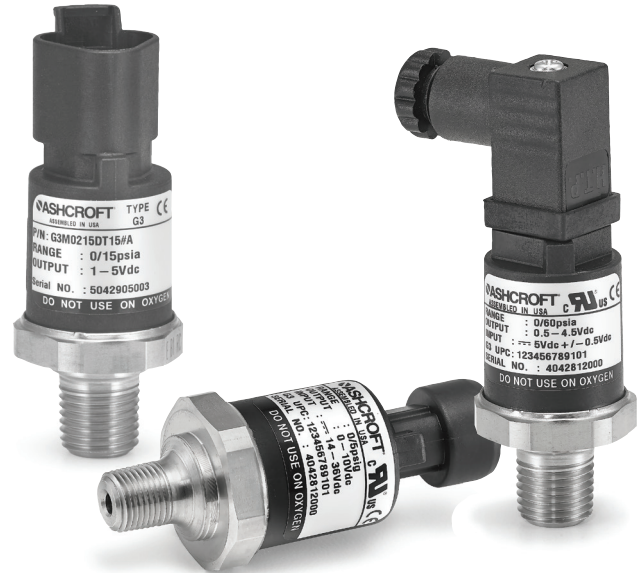
G3 Pressure Transducer

FEATURES

- All-welded 316L stainless steel sensor and pressure connection
- Highly configurable; wide selection of pressure connections and electrical terminations
- Ranges vacuum to 5000 psi

TYPICAL USES

- Performance vehicle racing
- Railroad/transportation
- Agriculture implements
- Compressor control
- HVAC and refrigeration
- Process automation and control
- Pump monitoring



G3
Transducer



SPECIFICATIONS

Reference Temperature:	72 °F ±2 °F (21 °C ±1 °C)
Accuracy Class (BFSL):	± 0.50% of span
Accuracy (TEB):	±1.5% of Span: From -20 to 85 °C (-4 to 185 °F) ±2.0% of Span: From -40 to -20 °C (-40 to -4 °F) ±2.0% of Span: From 85 to 125 °C (185 to 257 °F) Total Error Band Accuracy: includes the combined effects of non-linearity (Terminal Point Method), hysteresis, non-repeatability, temperature and zero offset and span setting errors
Stability:	≤ ±0.25% of span/year
Durability:	> 10 million cycles
Approvals:	CE/UKCA, CE, UL (UL 61010-1), (CSA 222 6101-1) UL Recognized component per UL-61010-1, CSA 22.2 6101-1 Electrical Equipment for Measurement, Control and Laboratory use

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:	0 to 100% R.H., no effect

FUNCTIONAL SPECIFICATIONS

Vibration Effects:	Random vibration (20 g) over temperature range (-40 °C to 125 °C)
Shock Effects:	100 gs, 6 ms
Drop Test:	Withstands 1 meter on concrete
Response Time:	<2 ms

KEY BENEFITS

- Broad temperature capability
- High EMI/RFI immunity ratings
- Up to IP67 Ingress rating
- High performance ASIC based electronics

FUNCTIONAL SPECIFICATIONS

Pressure Ranges:	Vacuum, compound, gauge 5 to 5000 psig and absolute 15 to 500 psia	
Warm-up Time:	> 500 msec	
Position Effect:	< ±0.01% span	
Overpressure:	Proof	Burst
≤200 psi	2X Range	5X Range
300 to 5000 psi	1.5X Range	3X Range

ELECTRICAL SPECIFICATIONS

Reverse Polarity & Miswired Protected:	Yes
Insulation Breakdown Voltage:	100 Vac
Insulation Resistance:	>100 Mh @ 100 Vdc
Circuit Protection:	Reverse polarity and miswire protection

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OUTPUT SIGNALS AVAILABLE

Voltage Output	Excitation	Supply Current
0-5 Vdc, 3 wire	9-36 Vdc	5 mA
0-10 Vdc, 3 wire	14-36 Vdc	5 mA
1-5 Vdc, 3 wire	9-36 Vdc	4 mA
1-6 Vdc, 3 wire	9-36 Vdc	4 mA
0.5-4.5 Vdc 3 wire	9-36 Vdc	4 mA
Ratiometric Output		
0.5-4.5 Vdc, 3 wire	5.0 Vdc +/- 0.5Vdc	3.5 mA
Current Output		
4-20 mA, 2 wire	9-36 Vdc	

ENVIRONMENTAL RATING

Rating	Electrical Connections
IP67, NEMA 4X	Metri-Pack®, Shielded cable, Flying leads Deutsch® DT & DTM, AMP® Superseal® and M12
IP65, NEMA 4X	Hirschmann® G, EN 175301-803 Form C (DIN 43650 C)

WETTED COMPONENTS

Diaphragm	316L Stainless steel
Process Connection	316L Stainless steel

NON-WETTED COMPONENTS

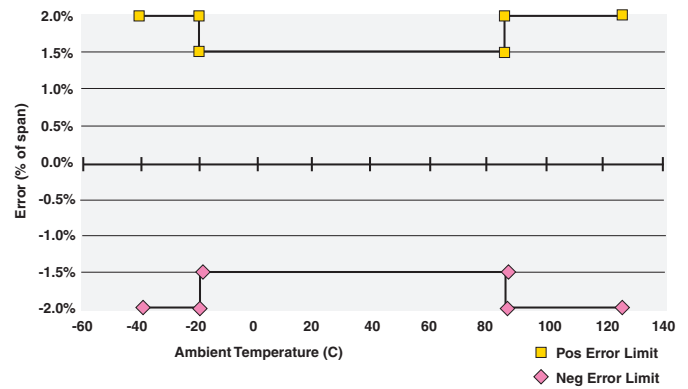
Housing	20% Glass reinforced nylon, Fire retardant to UL94 V1
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OPTIONAL FEATURES

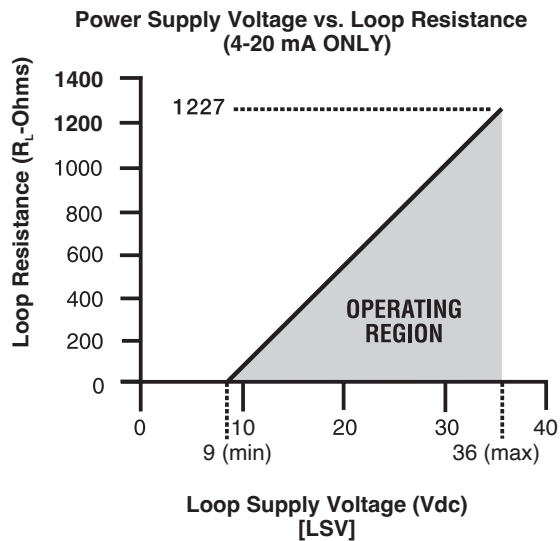
Electrical Termination:	See ordering code
Process Connection Location:	See ordering code
Consult Factory For:	Pressure range options, process connection locations, approval descriptions

TOTAL ERROR BAND (TEB)

Error limits of all points (0-100% of range)



POWER SUPPLY & LOAD RESISTANCE



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ORDERING CODE	Example:	G3	M01	42	M2	60#	G	-	XTU
Model									
G37 - G3 Series, 1.5% Total Error Band -20 °C/85 °C, 2.0% Total Error Band -40 °C/-20 °C, 85 °C/125 °C									
Pressure Connection Size									
M01 - 1/8 NPT - Male			M01						
M02 - 1/4 NPT - Male									
MEK - 7/16 20 SAE #4 - Male, not UL recognized 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									
M38 - 3/8-24 SAE #3 Male w/Buna-N O-ring									
M33 - 3/8-24 UNJF3A (w/37° cone seat)									
M76 - 7/16-20 UNJF3A (w/37° cone seat)									
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 Ratio metric to 5 Vdc supply									
45 - 0.5-4.5 Vdc Ratio metric to 9-36 Vdc supply									
Electrical Termination									
EN 175301-803 Form C (DIN 43650, Form C)									
DC - No mating connector									
N1 - Mating connector, no cable									
N2 - Mating connector, 1 meter (3 feet) of cable									
N3 - Mating connector, 3 meter (10 feet) of cable									
N9 - Mating connector with customer specified length									
M12 - Mates to Hirschmann® 933 172-100 or similar									
EW - No mating connector									
E0 - W/mating connector, no cable									
E2 - W/mating connector, 1 meter (3 feet) of shielded cable									
E1 - W/mating connector, customer defined cable length									
Pigtail - Shielded cable with PVC jacket and 24 AWG leads									
F2 - W/1 meter (3 feet) cable length									
F3 - W/3 meter (10 feet) of cable length									
P1 - Customer specified length									
Metri-Pack®									
GN - No mating connection									
G2 - Mating connection with 1 meter (3 feet) of cable									
G3 - Mating connection with 3 meter (10 feet) of cable									
G1 - Mating connection with customer specified length									
Hirschmann® G Series									
HM - No mating connection									
M1 - W/mating connector, no cable									
M2 - Mating connection with 1 meter (3 feet) of cable									
P9 - Mating connector with customer specified length									
Flying Leads									
W2 - 1 meter (3 feet) of flying leads									
W9 - Customer specified length									
Deutsch® DT Series DT04-3P									
DT - Without mating connector									
T2 - W/1 meter (3 feet) of cable									
T3 - W/3 meter (10 feet) of cable									
T1 - W/mating connector, customer specified length									
Deutsch® DT Series DTM04-3P									
DS - Without mating connector									
S2 - W/1 meter (3 feet) of cable									
S3 - W/3 meter (10 feet) of cable									
S1 - W/mating connector, customer specified length									
AMP® Superseal®									
AP - Without mating connector									
A2 - W/1 meter (3 feet) of cable									
A3 - W/3 meter (10 feet) of cable									
A1 - W/mating connector, customer specified length									
Pressure Ranges (see range table on page 4)									
60# - 60 psi						60#			
Measurement Type									
G - Gauge								G	
A - Absolute									
Option (if including an option(s) must include an "X")									
TU - Throttle Plug									X __ TU

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G3 RANGE TABLE

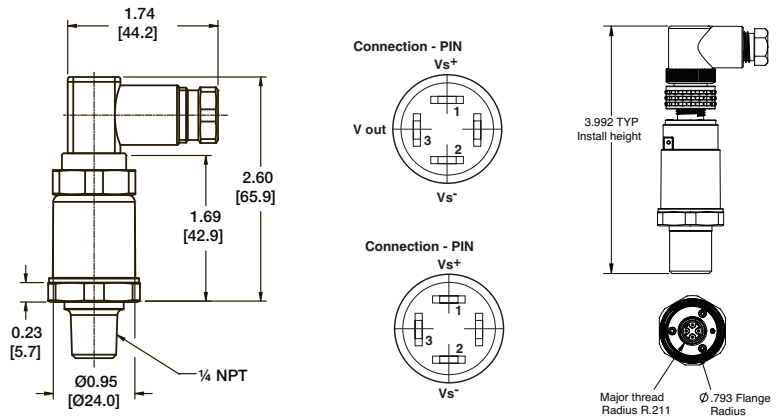
	Range	Code
* Compound	0 psi/-14.7 psi	0#&vac
	15 psi/-14.7 psi	15#&vac
	30 psi/-14.7 psi	30#&vac
	60 psi/-14.7 psi	60#&vac
	100 psi/-14.7 psi	100#&vac
	150 psi/-14.7 psi	150#&vac
	300 psi/-14.7 psi	300#&vac
Positive Pressure	*5 psi	5#
	15 psi	15#
	30 psi	30#
	50 psi	50#
	60 psi	60#
	100 psi	100#
	150 psi	150#
	250 psi	250#
	300 psi	300#
	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#	

bar, kPa, and mPa ranges also available

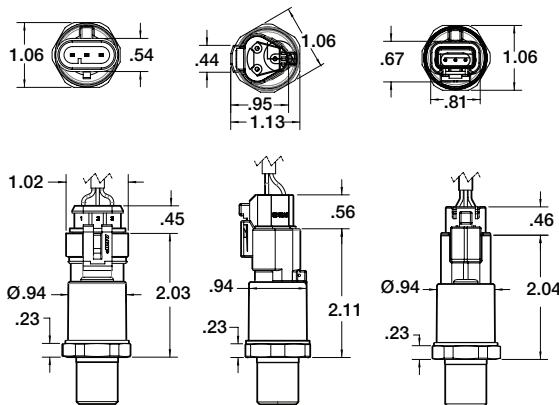
*Not available in absolute pressure

DIMENSIONS are identified in inches and [millimeters]

For reference only, consult Ashcroft for specific dimensional drawings.

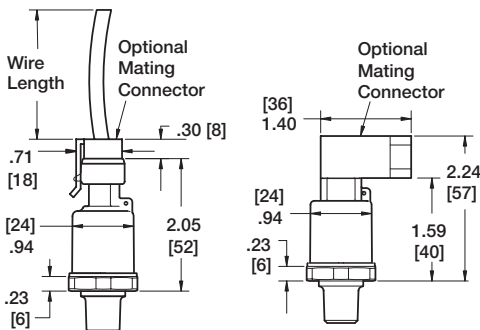
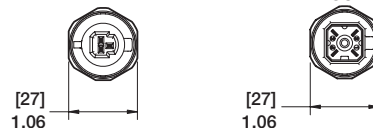


AMP® SUPERSEAL® DEUTSCH® DT04-3P DEUTSCH® DTM04-3P



3-PIN METRI-PACK®*

MINI HIRSCHMANN®**



*Mates to Metri-Pack® Connector Body 12065286

**Mates to Hirschmann® G4W1F Connector or Similar