

Data Sheet

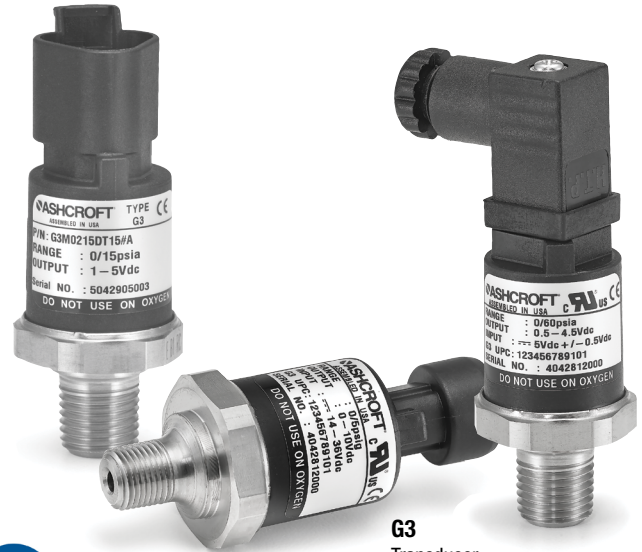
G3 Pressure Transducer

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
- NSF-61 Compliant

TYPICAL USES

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



G3
Transducer



Certified to
NSF/ANSI/CAN 61



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: NSF-61, 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
- 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

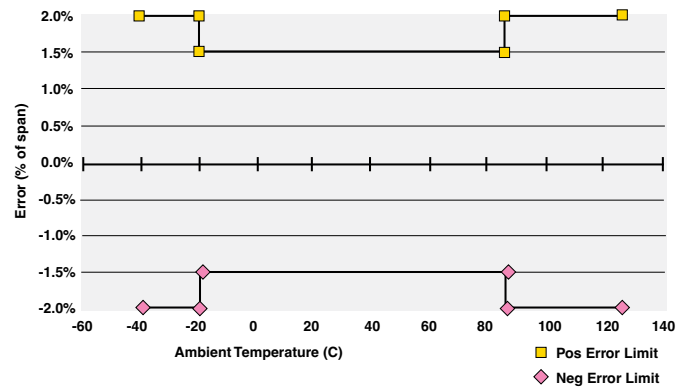
Housing	20% Glass Reinforced Nylon, Fire retardant to UL94 V1
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OPTIONAL FEATURES

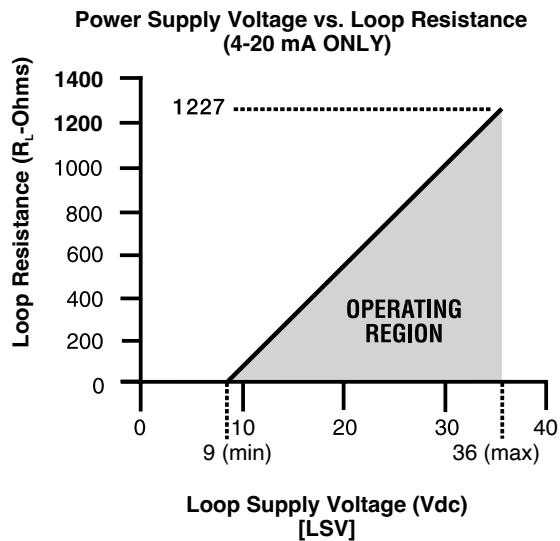
Electrical Termination:	See Ordering Code
Process Connection Location:	See Ordering Code
Consult Factory For:	Pressure range options, Process connection locations, Approval descriptions

TOTAL ERROR BAND (TEB)

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



POWER SUPPLY & LOAD RESISTANCE



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ORDERING CODE	Example:	G37	M01	42	M2	60#	G -	XTU
Model								
G37 - G3 Series, 1.5% Total Error Band -20 °C to 85 °C, 2.0% Total Error Band -40 °C to -20 °C and 85 °C to 125 °C		G37						
Pressure Connection Size								
M01 - 1/8 NPT - Male			M01					
M02 - 1/4 NPT - Male								
MEK - 3/8 20 SAE #4 - Male, not UL recognized over 10,000 psi range								
MEV - 3/8-18 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								
5 - 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								
E4 - W/mating connector, 3 meter (10 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 connector 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					M2			
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								X _ _
Option (if including an option(s) must include an "X")								
TU - Throttle Plug								TU

All specifications are subject to change without notice. All sales subject to standard terms and conditions.

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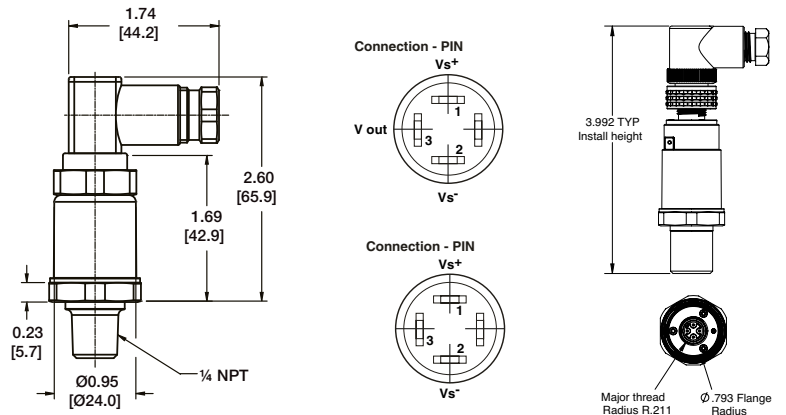
G3 RANGE TABLE

	Range	Code	316SS	316SS ISO
Gauge	5 psi	5#		X
	15 psi	15#	X*	X
	30 psi	30#	X	X
	50 psi	50#	X	X
	60 psi	60#	X	X
	100 psi	100#	X	X
	150 psi	150#	X	X
	250 psi	250#	X	X
	300 psi	300#	X	X
	500 psi	500#	X	X
	750 psi	750#	X	X
	1,000 psi	1000#	X	X
	1,500 psi	1500#	X	X
	2,000 psi	2000#	X	X
	3,000 psi	3000#	X	X
5,000 psi	5000#	X	X	
Compound	0 psi/-14.7 psi	0#&vac	X*	X
	15 psi/-14.7 psi	15#&vac	X*	X
	30 psi/-14.7 psi	30#&vac		X
	60 psi/-14.7 psi	60#&vac		X
	100 psi/-14.7 psi	100#&vac		X
	150 psi/-14.7 psi	150#&vac		X
	300 psi/-14.7 psi	300#&vac		X
Absolute	15 psi	15#		X
	30 psi	30#		X
	50 psi	50#		X
	60 psi	60#		X
	100 psi	100#		X
	250 psi	250#		X
	300 psi	300#		X
	500 psi	500#		X

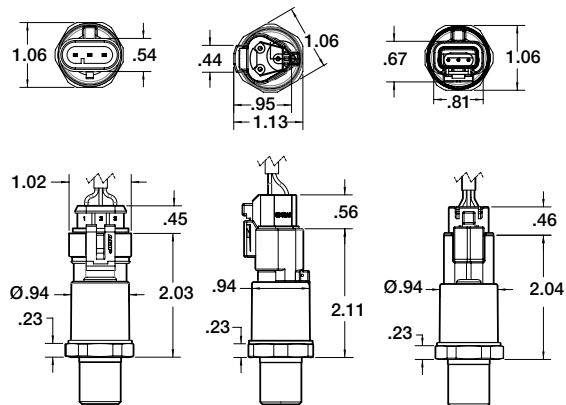
*Not available with 4-20mA output

DIMENSIONS are identified in inches and [millimeters]

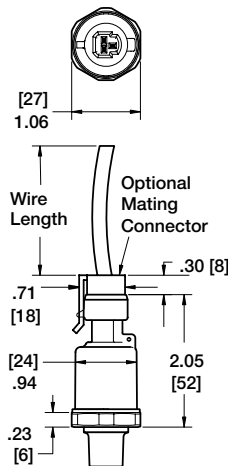
For reference only, consult Ashcroft for specific dimensional drawings.



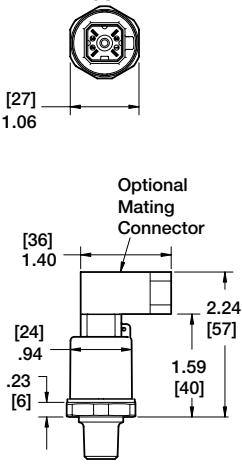
AMP® SUPERSEAL® DEUTSCH® DT04-3P DEUTSCH® DTM04-3P



3-PIN METRI-PACK®*



MINI HIRSCHMANN®**



*Mates to Metri-Pack® Connector Body 12065286

**Mates to Hirschmann® G4W1F Connector or Similar