

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

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

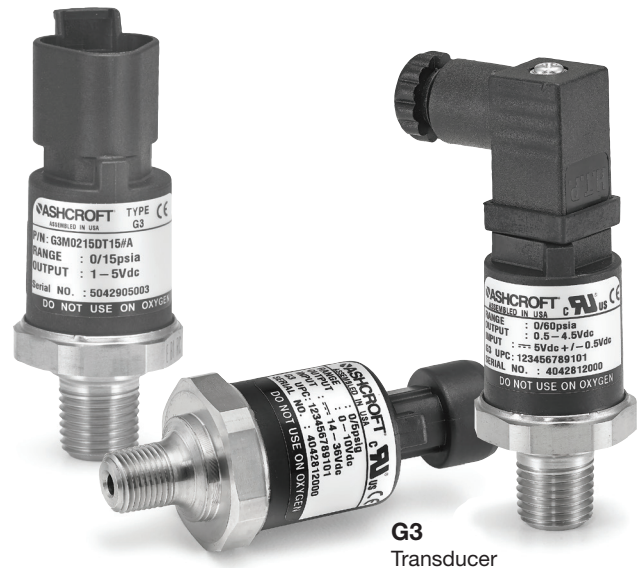
Functional Specifications

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



G3
Transducer



Certified to
NSF/ANSI CAN 61



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

Contact Us

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ashcroft.com

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

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G3 Pressure Transducer

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

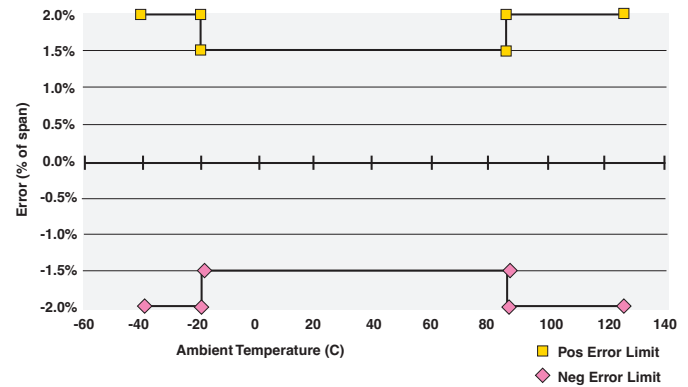
Housing	20% Glass Reinforced Nylon, Fire retardant to UL94 V1
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Optional Features

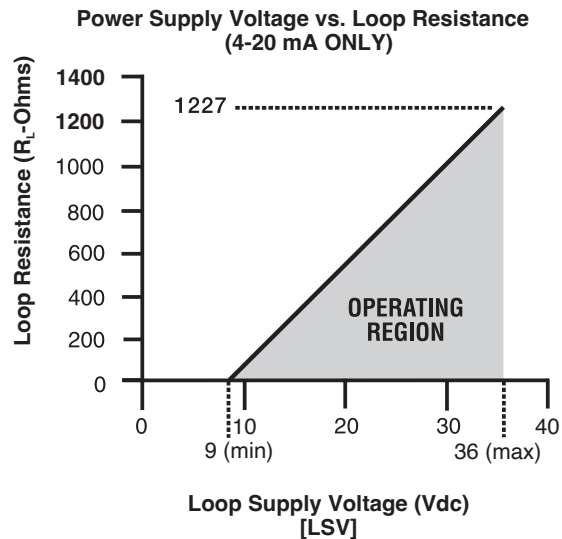
Electrical Termination:	See Ordering Code
Process Connection Location:	See Ordering Code
Consult Factory For:	Pressure range options, Process connection locations, Approval descriptions

Total Error Band (TEB)

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



Power Supply & Load Resistance



G3 Pressure Transducer

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 - 7/16 20 SAE #4 - Male, not UL reconginzed 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									
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#			
Measurement Type									
G - Gauge							G		
A - Absolute									
Option (if including an option(s) must include an "X")									
TU - Throttle Plug									X TU

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

Technical drawings of AMP Superseal Deutsch DT04-3P and DTM04-3P connectors. The drawings include side views, end views, and connection diagrams. Dimensions are provided in inches and millimeters.

AMP® SUPERSEAL® DEUTSCH® DT04-3P

Dimensions (inches [mm]):

- Overall length: 1.74 [44.2]
- Body length: 1.69 [42.9]
- Flange thickness: 0.23 [5.7]
- Flange diameter: Ø0.95 [Ø24.0]
- Thread: ¼ NPT

DEUTSCH® DTM04-3P

Dimensions (inches [mm]):

- Typical install height: 3.992 TYP [101.4]
- Major thread: Ø.793 Flange Radius R.211

3-PIN METRI-PACK®**

Dimensions (inches [mm]):

- Overall length: 1.06 [27]
- Flange thickness: 0.23 [6]
- Flange diameter: Ø.94 [24]
- Body length: 2.03 [52]
- Wire length: .71 [18]
- Optional Mating Connector: .30 [8]

MINI HIRSCHMANN®***

Dimensions (inches [mm]):

- Overall length: 1.06 [27]
- Flange thickness: 0.23 [6]
- Flange diameter: Ø.94 [24]
- Body length: 2.04 [52]
- Wire length: .71 [18]
- Optional Mating Connector: 1.40 [36]
- Optional Mating Connector: 2.24 [57]
- Optional Mating Connector: 1.59 [40]

***Mates to Metri-Pack® Connector Body 12065286**

****Mates to Hirschmann® G4W1F Connector or Similar**