

Data Sheet

E2G Pressure Transducer

FEATURES

- Ranges vac through 20,000 psi
- IP66/67 Ingress rating
- Wide selection of electrical and process connections
- Customizable configurations
- External magnetic offset and span adjustment
- Barometric pressure ranges available (standard and custom ranges)

TYPICAL USES

- Off-Road equipment
- Construction machinery
- HVAC/Refrigeration
- Compressor control
- Pump monitoring
- Agricultural equipment
- Diagnostic kits
- Engine monitoring
- Process automation and controls
- Hydraulic and pneumatic sensing

PERFORMANCE SPECIFICATIONS

Reference Temperature:	70 °F ±3.6 °F (21 °C ±2 °C)
Static Accuracy:	±0.25% of span, ±0.50% of span, ±1.0% of span, (0-1.5# Range only available in ±0.5% and 1.0% accuracy) Terminal Point Method includes: hysteresis, linearity, repeatability, offset and span
Stability:	±0.25% year at reference conditions

ENVIRONMENTAL SPECIFICATIONS

Thermal Coefficients:	Offset: ±0.005% /°F from -40 °F to 257 °F (±0.009% /°C from -40 °C to 125 °C) Span: ±0.005% /°F from -40 °F to 257 °F (±0.009% /°C from -40 °C to 125 °C)
Temperature Limits:	Storage: -58 °F to 257 °F (-50 °C to 125 °C) Operating: -40 °F to 257 °F (-40 °C to 125 °C) Media: -40 °F to 257 °F (-40 °C to 125 °C)
Humidity:	0-100% (non-condensing)

FUNCTIONAL SPECIFICATIONS

Response Time (Output)	4 ms
Gauge/Compound Pressure Ranges:	VAC to 20,000 psig
Shock:	80 g, 6 ms, Haversine
Vibration:	Random: 10 g RMS 20-2000 Hz
Absolute Pressure Ranges:	0 to 500 psia
Proof Pressure:	1.2X - 2X (See Table 1 on page 2)
Burst Pressure:	3X - 8X (See Table 1 on page 2)



E2G
Pressure Transducer



KEY BENEFITS

- Highly configurable
- Easy calibration of offset and span

ELECTRICAL SPECIFICATIONS

Circuit Protection:	Reverse polarity protected	
Output Signal:	Supply Voltage: (unregulated)	
	Min.	Max:
0-5 Vdc (3 Wire)	9 Vdc	36 Vdc
1-5 Vdc (3 Wire)	9 Vdc	36 Vdc
1-6 Vdc (3 Wire)	9 Vdc	36 Vdc
0-10 Vdc (3 Wire)	14 Vdc	36 Vdc
1-11 Vdc (3 Wire)	14 Vdc	36 Vdc
0.1-5 Vdc (3 Wire)	9 Vdc	36 Vdc
0.1-10 Vdc (3 Wire)	14 Vdc	36 Vdc
0.5-4.5 Vdc (3 Wire)	9 Vdc	36 Vdc
4-20 mA (2 Wire)	9 Vdc	36 Vdc
20-4 mA (2 Wire)	9 Vdc	36 Vdc
Adjustability:	±5% of span non-interactive offset and span	
Supply Current:	<8 mA (Vout)	
Current Source/Sink for Voltage Output	1 mA (source)/ 0.1 mA (sink) MAX.	
Withstand/Breakdown	100 Vdc/Vac, optional 500 Vdc/Vac	

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PHYSICAL SPECIFICATIONS

Ingress Rating: IP66 (NEMA 4X) (STD.)
IP67 (IP69K Consult Factory)

WETTED MATERIAL

Diaphragm: Sensor: Material:
 A 17-4 PH® Stainless steel*
 B 316L Stainless steel
 C 316L Stainless steel, liquid isolated
 D A286
 ***A* sensor with ranges of 10,000 psi and above include 316 Stainless steel and 17-4 PH® H900 Stainless steel (process connection).

Process Connection: 316L Stainless steel

NON-WETTED MATERIAL

Housing: 316L Stainless steel

EMC TESTING

EMC: Directive 2014/30/EU, and EN61326-1, EN61326-2-3 (Industrial Env.)

Immunity: 61000-4-2 (ESD) ±4 kV/±8 kV (Contact/Air)
 61000-4-3 (Radiated RF) 10 V/m to 1 GHz, 3 V/m to 2 GHz, 1 V/m to 2.7 GHz
 61000-4-4 (EFT/Burst) ±1 kV (5/50 ns, 5 kHz)
 61000-4-5 (Surge) ±1 kV, Earth to Shield over all I/O lines
 61000-4-6 (Conducted RF) 3 V/ (0.15 to 80 MHz)
 61000-4-8 (Line Freq. Magnetic) 30 A/m

Emissions: EN 55011 (CISPR 11) Class A, Group 1 & FCC (47 CFR 15)

APPROVALS

CE/UKCA, UL/cUL Recognized component (UL 61010-1, CSA 22.2 61010-1), Electrical Equipment for Measurement, Control, and Laboratory Use.

TABLE 1: PROOF & BURST PRESSURE MULTIPLIERS

Sensor Range	A Sensor - 17-4 PH® SS		B Sensor - 316 LSS		C Sensor - 316L SS ISO		D Sensor - A286	
	Proof	Burst	Proof	Burst	Proof	Burst	Proof	Burst
(psi)								
1.5					2X	5X		
5					3X	5X		
10					2X	5X		
15					2X	5X		
30	2X	8X	1.5X	8X	2X	5X		
45	2X	8X	1.5X	8X	2X	5X		
50	2X	8X	1.5X	8X	2X	5X		
60	2X	8X	1.5X	8X	2X	5X		
75	2X	8X	1.5X	8X	2X	5X		
100	2X	8X	1.5X	8X	2X	5X		
150	2X	8X	1.5X	8X	2X	4X		
200	2X	8X	1.5X	8X	2X	3X		
300	2X	8X	1.5X	8X	2X	3X		
500	2X	8X	1.2X	5X	3X	4X		
750	2X	8X	1.2X	5X				
1000	2X	8X	1.2X	5X				
1500	2X	8X	1.2X	5X				
2000	2X	8X	1.2X	5X				
3000	2X	5X	1.2X	5X				
5000	1.5X	5X	1.2X	5X			1.5X	5X
7500	1.5X	3X					1.5X	5X
10,000	1.2X	3X					1.2X	5X
15,000	1.2X	3X					1.2X	5X
20,000	1.2X	3X					1.2X	5X
(Compound)								
VAC#					2X	5X		
V&15#					2X	5X		
V&30#					2X	5X		
V&45#	2X	8X	1.5X	8X				
V&60#	2X	8X	1.5X	8X	2X	5X		
V&100#	2X	8X	1.5X	8X				
V&150#	2X	8X	1.5X	8X	2X	4X		
V&200#	2X	8X	1.5X	8X				
V&300#	2X	8X	1.5X	8X	2X	3X		
(psia)								
15					2X	5X		
30					2X	5X		
50					2X	5X		
150					2X	4X		
300					2X	3X		
500					2X	3X		



What Does It Mean?

Ashcroft's TruAccuracy™ specification is exclusively based on terminal point methodology instead of statistically derived schemes like 'best fit straight line'.

TruAccuracy™ means the Ashcroft E2G has ±0.25% of span accuracy out of the box. Zero and span setting errors are already included in the ±0.25% of span accuracy spec.

The E2G is ready to be installed with no additional calibration adjustments required.

A unit from another manufacturer advertised as ±0.25% best fit straight line may actually be a ±1.25% to ±2.25% device. Using best fit straight line method, the accuracy spec does not include zero and span setting errors, which can be as much as ±1.00% each.

Data Sheet

E2G Pressure Transducer

ORDERING CODE	Example:	E2G	B	3	C	F02	42	CC	X	10	F	100#	-XNH
Model													
E2G - General Purpose		E2G											
Sensor Materials - See Table 2 on page 4 for more options													
A - 17-4 PH® Stainless steel													
B - 316L Stainless steel			B										
C - 316L Stainless steel (liquid isolated)													
D - A286													
Accuracy													
3 - 0.25% span (not available with 1.5 psi range)				3									
5 - 0.50% span													
7 - 1.00% span													
Calibration Chart													
N - Without calibration chart													
C - With calibration chart					C								
Pressure Connections - See Table 3 on page 5 for more options													
F02 - (¼ NPT Female)						F02							
Output Type													
05 - 0-5 Vdc													
10 - 0-10 Vdc													
11 - 1-11 Vdc													
12 - 1-10 Vdc													
13 - 0.1-5 Vdc													
15 - 1-5 Vdc													
16 - 1-6 Vdc													
42 - 4-20 mA							42						
45 - 0.5-4.5 Vdc non-ratiometric													
00 - Custom													
Electrical Connections - See Table 4 on page 6 for more options													
CC - (½ NPT conduit w/cable)								CC					
Mating Connector													
M - With mating connector													
X - Without mating connector									X				
Cable Length													
Max cable length of 30ft for outputs 05, 10, 11, 12, 13, 15, 16 and 45; Max cable length of 99ft for outputs 24 and 42													
00 - No cable													
XX - 01 to 99										10			
Unit of Length													
F - Feet											F		
M - Meter													
N - Inches													
0 - No cable													
Pressure Ranges - Coding example only, see Table 5 on page 7 for more options													
100# - 100 psig												100#	
Options (if choosing an option(s) must include an "X")													
NN - Paper tag													-X
NH - Stainless steel tag													NH

Accessory	Part Number
Offset and Span Adjustment Magnet	266A143-01
Accessories must be ordered separately	

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TABLE 2 - SENSOR PRESSURE RANGE														
psi	Sensor Material				bar	Sensor Material				inHg	Sensor Material			
	A 17-PH® SS	B 316L SS	C 316 ISO	D A286		A 17-PH® SS	B 316L SS	C 316 ISO	D A286		A 17-PH® SS	B 316L SS	C 316 ISO	D A286
1.5#			•											
5#			•		400MB			•		10IM			•	
10#			•		600MB			•		20IM			•	
15#			•		1BR			•		30IM			•	
30#	•	•	•		1.6BR			•		50IM			•	
45#	•	•	•		2BR			•		100IM	•	•	•	
50#	•	•	•		2.5BR	•	•	•		200IM	•	•	•	
60#	•	•	•		4BR	•	•	•		300IM	•	•	•	
75#	•	•	•		6BR	•	•	•		500IM	•	•	•	
100#	•	•	•		10BR	•	•	•		1000IM	•	•		
150#	•	•	•		16BR	•	•	•		VACIM			•	
200#	•	•	•		20BR	•	•	•		V&30IM			•	
250#	•	•	•		25BR	•	•	•		V&60IM			•	
300#	•	•	•		40BR	•	•	•		V&100IM	•	•	•	
500#	•	•	•		60BR	•	•	•		V&200IM	•	•	•	
750#	•	•	•		100BR	•	•	•		30IMA			•	
1000#	•	•	•		160BR	•	•	•		50IMA			•	
1500#	•	•	•		200BR	•	•	•		100IMA			•	
2000#	•	•	•		250BR	•	•	•		200IMA			•	
2500#	•	•	•		400BR	•	•	•		300IMA			•	
3000#	•	•	•		600BR	•	•	•		500IMA			•	
5000#	•	•	•	•	1000BR	•	•	•		1000IMA			•	
7500#	•	•	•	•	VACBR			•		20&32IMA			•	
10000#	•	•	•	•	V&1BR			•		26&32IMA			•	
15000#	•	•	•	•	V&1.6BR			•		700&1100MBA			•	
20000#	•	•	•	•	V&2BR			•		900&1100MBA			•	
VAC#			•		V&4BR	•	•	•						
V&15#	•	•	•		V&6BR	•	•	•						
V&30#	•	•	•		1BRA			•						
V&45#	•	•	•		1.6BRA			•						
V&60#	•	•	•		2BRA			•						
V&100#	•	•	•		2.5BRA			•						
V&150#	•	•	•		4BRA			•						
V&200#	•	•	•		6BRA			•						
V&300#	•	•	•		10BRA			•						
15#A			•		16BRA			•						
30#A			•		20BRA			•						
50#A			•											
100#A			•											
120#A			•											
300#A			•											

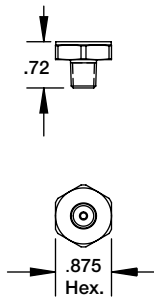
E2G Pressure Transducer

TABLE 3 - PRESSURE CONNECTION DIMENSIONS

1/8 NPT Male

Code: M01

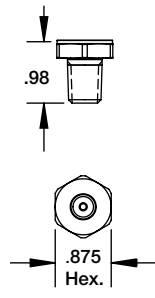
MAWP: 20,000 psi



1/4 NPT Male

Code: M02

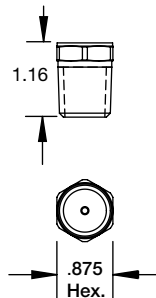
MAWP: 20,000 psi



1/2 NPT Male

Code: M04

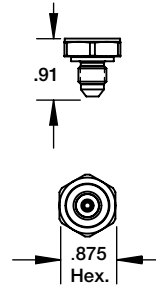
MAWP: 10,000 psi



7/16-20 UNJF-3A 37° Flare (SAE AS4395)

Code: M76

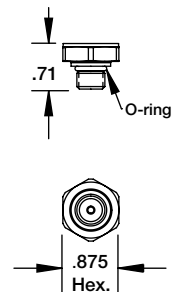
MAWP: 20,000 psi



7/16-20 UNJF-2A SAE-Male (SAE J1926 O-Ring Boss seal)

Code: MEK

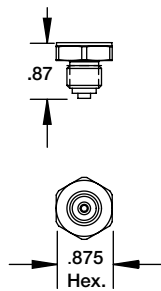
MAWP: 10,000 psi



G1/4 B-Male (EN837-1)

Code: MG2

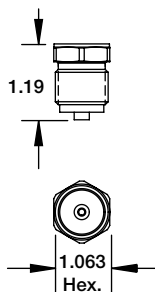
MAWP: 20,000 psi



G1/2 B Male (EN837-1)

Code: MG4

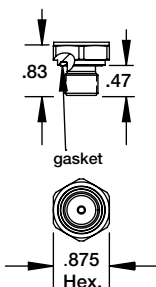
MAWP: 20,000 psi



G1/4 A-MALE (stud end DIN 3852-E G1/4)

Code: MGA

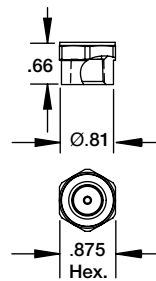
MAWP: 10,000 psi



1/4-18 NPT Female

Code: F02

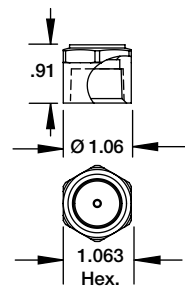
MAWP: 10,000 psi



1/2-14 NPT Female

Code: F04

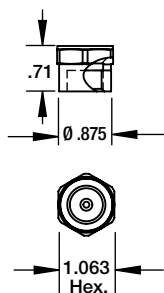
MAWP: 5,000 psi



9/16-18 UNF-2B Female

Code: F09

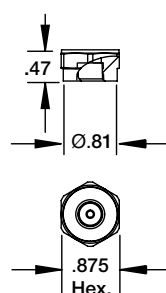
MAWP: 25,000 psi



1/8 -27 NPT Female

Code: F01

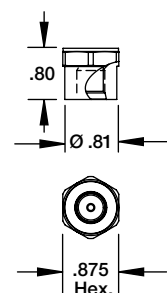
MAWP: 10,000 psi



7/16-20 UNF-2B SAE J1926

Code: FRW

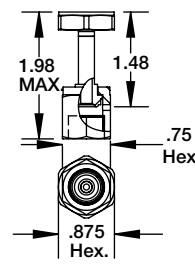
MAWP: 9,100 psi



1/4 Compatible with VCR® gland with 9/16-18 Female Swivel Nut

Code: FV2

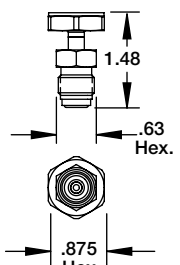
MAWP: 5,100 psi



1/4 Compatible with VCR® gland with 9/16-18 Male Swivel Nut

Code: MV2

MAWP: 5,100 psi



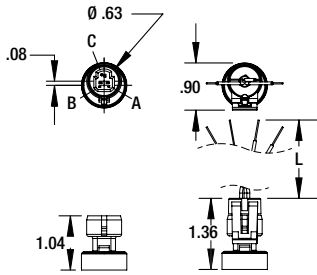
Data Sheet

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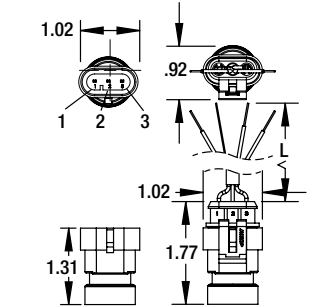
TABLE 4 - ELECTRICAL CONNECTION DIMENSIONS

Maximum temperature range listed

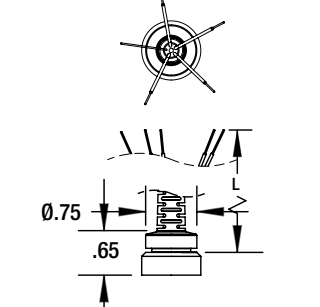
Metri-Pack® 3-Pin
Code: GN – IP67 (NEMA 4X)
-40 °F to 185 °F (-40 °C to 85 °C)



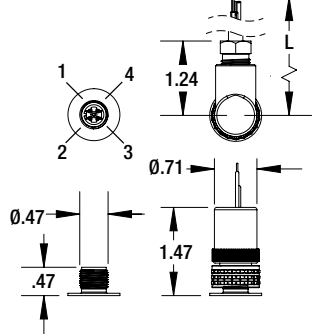
AMP® Superseal® 3-Pin
Code: AP – IP66 (NEMA 4X)
-40 °F to 185 °F (-40 °C to 85 °C)



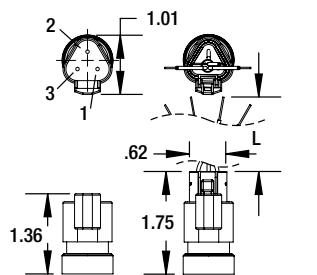
Over-Mold Cable
Code: FC, FV* – IP67 (NEMA 4X)
-40 °F to 185 °F (-40 °C to 85 °C)



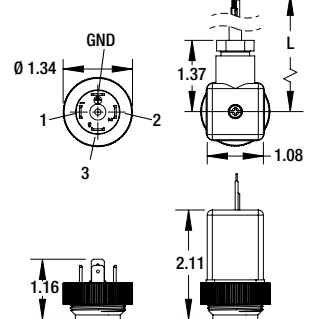
M12 4-Pin
Code: EW, RW** – IP66 (NEMA 4X)
-40 °F to 185 °F (-40 °C to 85 °C)



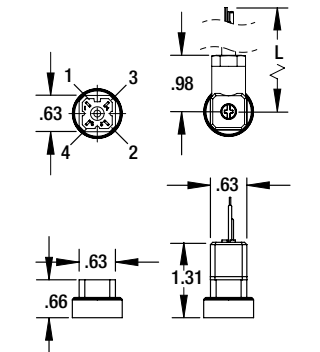
DEUTSCH® DT04 3-Pin
Code: DT – IP66 (NEMA 4X)
-40 °F to 185 °F (-40 °C to 85 °C)



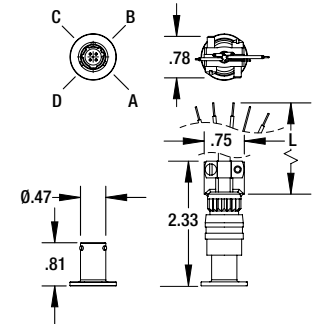
Hirschmann® EN 175301-803 Form A
Code: DA – IP65 (NEMA 4X)
-40 °F to 185 °F (-40 °C to 85 °C)



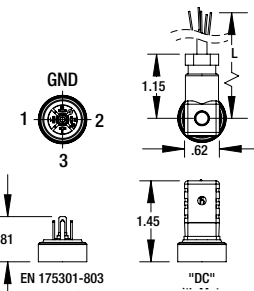
Mini-Hirschmann®
Code: HM – IP65 (NEMA 4X)
-40 °F to 185 °F (-40 °C to 85 °C)



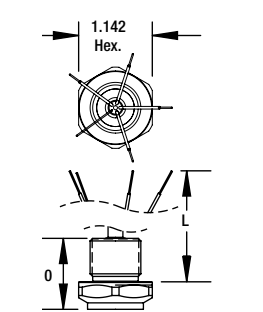
MIL DTL 26482 8 4-Pin
Code: B4 – No IP or NEMA rating
-40 °F to 221 °F (-25 °C to 105 °C)



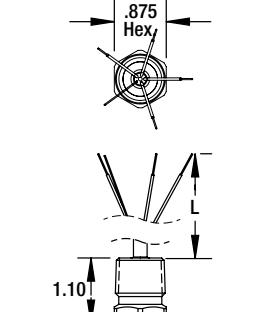
Hirschmann® EN 175301-803 Form C
Code: DC
IP65 (NEMA 4X)
-40 °F to 185 °F (-40 °C to 85 °C)



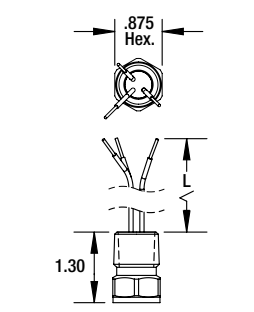
M20 Conduit With Cable
Code: MC, MV*
IP67 (NEMA 4X)
-40 °F to 257 °F (-40 °C to 125 °C)



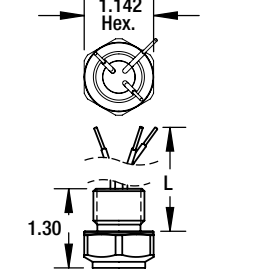
½ NPT Conduit With Cable
Code: CC, CV*
IP67 (NEMA 4X)
-40 °F to 257 °F (-40 °C to 125 °C)



½ NPT Conduit With Flying Leads
Code: CF
IP67 (NEMA 4X)
-40 °F to 257 °F (-40 °C to 125 °C)



M20 Conduit With Flying Leads
Code: MF
IP67 (NEMA 4X)
-40 °F to 257 °F (-40 °C to 125 °C)



Notes:
* Indicates Vented Cable
** See EW and RW pin-outs on page 8

Data Sheet

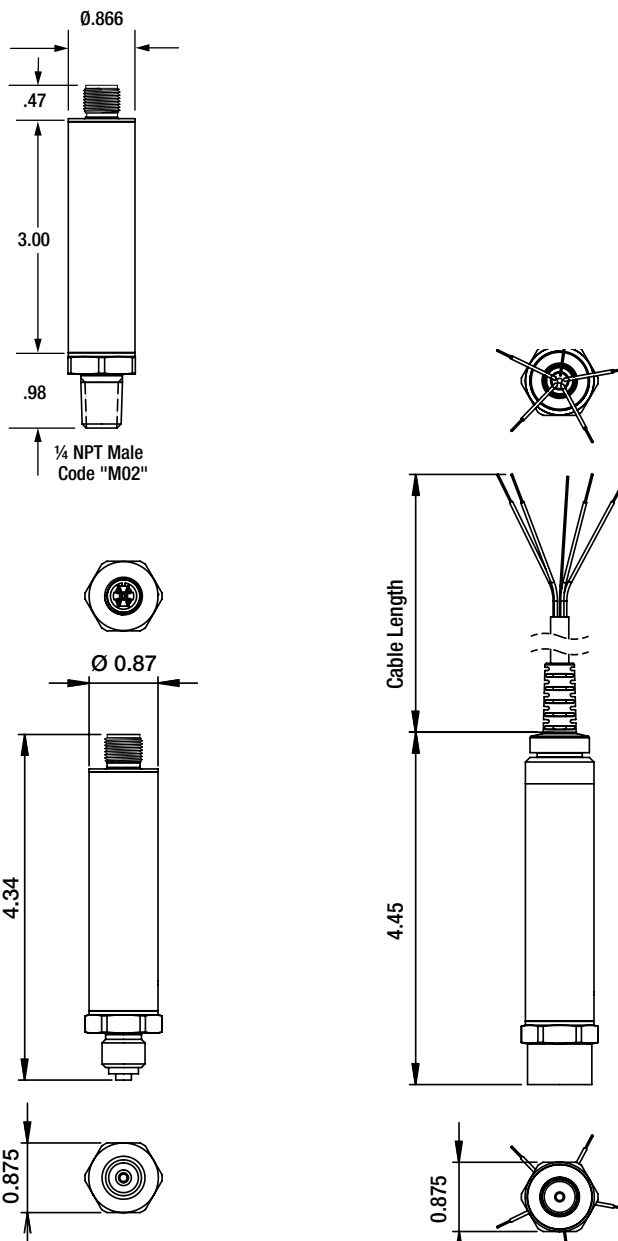
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TABLE 5 - PRESSURE RANGES

Vac.	PSI	bar	inHg
VAC#		VACBR	VACIM
Compound	V&15#	V&1BR	V&30IM
	—	V&1.6BR	—
	V&30#	V&2BR	V&60IM
	V&45#	—	V&100IM
	V&60#	V&4BR	—
	—	V&6BR	—
	V&100#	—	V&200IM
	V&150#	—	—
	V&200#	—	—
	V&300#	—	—
Positive Pressure (psig)	1.5#	105MB	3IM
	5#	400MB	10IM
	—	600MB	—
	10#	—	20IM
	15#	1BR	30IM
	—	1.6BR	50IM
	30#	2BR	—
	—	2.5BR	—
	45#	—	—
	50#	—	100IM
	60#	4BR	—
	75#	—	—
	—	6BR	—
	100#	—	200IM
	150#	10BR	300IM
	200#	—	—
	—	16BR	—
	250#	—	500IM
	300#	20BR	—
	—	25BR	—
	500#	—	1000IM
	—	40BR	—
	750#	—	—
	—	60BR	—
	1000#	—	—
1500#	100BR	—	
2000#	160BR	—	
—	200BR	—	
2500#	—	—	
3000#	—	—	
—	250BR	—	
5000#	—	—	
—	400BR	—	
7500#	—	—	
—	600BR	—	
10,000#	—	—	
15,000#	1000BR	—	
20,000#	—	—	
Absolute Pressure (psia)	15#A	1BRA	30IMA
	—	1.6BRA	50IMA
	30#A	2BRA	—
	—	2.5BRA	—
	50#A	—	100IMA
	—	4BRA	—
	—	6BRA	—
	100#A	—	200IMA
	—	10BRA	300IMA
	200#A	—	—
—	16BRA	500IMA	
—	20BRA	—	
500#A	—	—	

DIMENSIONS

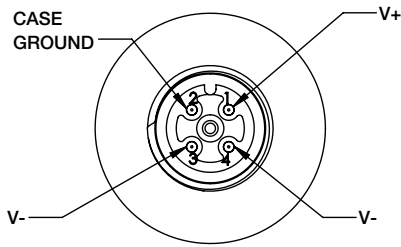
For reference only, consult Ashcroft for specific dimensional drawings



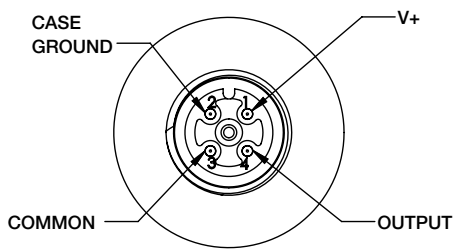
E2G Pressure Transducer

EW AND RW PIN-OUT DRAWINGS

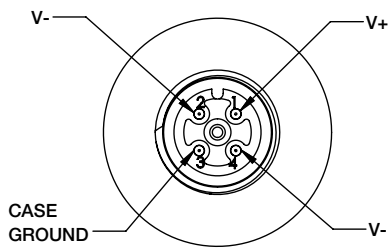
EW CURRENT OUTPUT



EW VOLTAGE OUTPUT



RW CURRENT OUTPUT



RW VOLTAGE OUTPUT

