ASHCROFT®
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E2G Pressure Transducer

FEATURES

- Ranges vacuum through 1400 bar (20,000 psi)
- IP66/67 Ingress rating
- Wide selection of electrical & process connections available
- Customizable configurations
- External magnetic offset & span adjustment

TYPICAL USES

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

E2
Pressure Transducer

PERFORMANCE SPECIFICATIONS

Reference Temperature:	21 °C ±2 °C (70 °F ±2 °F)
Static Accuracy:	±0.25 % of span, ±0.50 % of span, ±1.0 % of span Terminal Point Method includes: hysteresis, linearity, repeatability, offset and span
Stability:	≤±0.25 % of span/year at reference conditions

ENVIRONMENTAL SPECIFICATIONS

Thermal Coefficients:	Offset: ±0,09 % / 10 K Span: ±0,09 % / 10 K	
Temperature Limits:	Storage: Operating: Media	-50 °C to 125 °C (-58 °F to 257 °F) -40 °C to 125 °C (-40 °F to 257 °F) -40 °C to 125 °C (-40 °F to 257 °F)
Humidity:	0-100 % R.H. (non-condensing)	

FUNCTIONAL SPECIFICATIONS

Response Time (Output):	4 ms	
Gauge/Compound Pressure Ranges:	-1 to 1400 bar Vacuum to 20,000 psig	(see Table 6 at page 7)
Shock:	80 g, 6 ms, Haversine	
Vibration:	Random: 10 g RMS 20-2000 Hz	
Absolute Pressure Ranges:	0 to 1 up to 0 to 20 bar absolute 0 to 500 psia	
Pressure:	Proof: Burst:	1,2x to 2x 3x to 8x (see Table 1 at page 2)

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 & span
Supply Current:	<8 mA (Vout)
Curent Source/Sink for Voltage Output:	1 mA (source)/ 0,1 mA (sink) MAX.
Withstand/Breakdown:	100 Vdc/Vac, optional 500 Vdc/Vac

ashcroft.eu
sales@ashcroft.com
+49 (0) 2401/808-0

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PHYSICAL SPECIFICATIONS

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

WETTED MATERIAL

Diaphragm:	Sensor:	Material:
	A	17-4PH Stainless steel
	B	316L Stainless steel (1.4404)
	C	316L Stainless steel, liquid isolated (1.4404)
	D	A286
Process Connection:	Stainless steel 316L (1.4404)	

NON-WETTED MATERIAL

Housing:	Stainless steel 316L (1.4404)

APPROVALS

EMC:	CE Industrial EN 61326-1, EN 61326-2-3, EN 61326-3
ESD	4 kV Contact/8 kV air
RFI:	10 V/m 80-1000 MHz (20 V/m for safety toloerance)
Surge:	IEC 61000-4-5
Common Mode:	IEC 61000-4-6
Radiated Power Frequency:	IEC 61000-4-8
Conducted Emissions:	EN 550011/FCC

TABLE 1: PROOF & BURST PRESSURE MULTIPLIERS

	A Sensor - 17-4PH SS		B Sensor - 316 LSS		Sensor C - 316L SS ISO		Sensor D - A286	
Sensor Range	**Proof**	**Burst**	**Proof**	**Burst**	**Proof**	**Burst**	**Proof**	**Burst**
(psi)								
5					3×	5×		
10					2×	5×		
15					2×	5×		
30					2×	5×		
45	2×	8×	1.5×	8×	2×	5×		
50	2×	8×	1.5×	8×	2×	5×		
60	2×	8×	1.5×	8×	2×	5×		
75	2×	8×	1.5×	8×	2×	5×		
100	2×	8×	1.5×	8×	2×	5×		
150	2×	8×	1.5×	8×	2×	4×		
200	2×	8×	1.5×	8×	2×	3×		
300	2×	8×	1.5×	8×	2×	3×		
500	2×	8×	1.2×	5×	3×	4×		
750	2×	8×	1.2×	5×				
1000	2×	8×	1.2×	5×				
1500	2×	8×	1.2×	5×				
2000	2×	8×	1.2×	5×				
3000	2×	5×	1.2×	5×				
5000	1.5×	5×	1.2×	5×			1.5×	5×
7500	1.5×	3×					1.5×	5×
10000	1.2×	3×					1.2×	5×
15000	1.2×	3×					1.2×	5×
20000	1.2×	3×					1.2×	5×
(Compound)								
VAC#					2×	5×		
V&15#					2×	5×		
V&30#					2×	5×		
V&45#	2×	8×	1.5×	8×				
V&60#	2×	8×	1.5×	8×	2×	5×		
V&100#	2×	8×	1.5×	8×				
V&150#	2×	8×	1.5×	8×	2×	4×		
V&200#	2×	8×	1.5×	8×				
V&300#	2×	8×	1.5×	8×	2×	3×		
(psia)								
15					2×	5×		
30					2×	5×		
70					2×	5×		
150					2×	4×		
300					2×	3×		
500					2×	3×		

E2G Pressure Transducer

ORDERING CODE EXAMPLE:		E2G	B	3	C	F02	42	CC	X	10	M	10BR	XNH
Model													
E2G	E2G Pressure Transducer; General Purpose	E2G											
Sensor Materials - See Table 3 on page 4 for compatible ranges													
A	17-4PH Stainless steel		B										
B	316L Stainless steel (1.4404)												
C	316L Stainless steel (1.4404); liquid isolated												
D	A286												
Accuracy													
3	0,25 % of span			3									
5	0,50 % of span												
7	1,00 % of span												
X	Custom												
Calibration Chart													
N	Without calibration chart												
C	With calibration chart				C								
Pressure Connections - See Table 3 on page 5 for more connection styles													
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 with cable							CC					
Mating Connector													
M	With mating connector												
X	Without mating connector								X				
Cable Length													
Max cable length of 9 m (30ft) for outputs 05, 10, 11, 12, 13, 15, 16 and 45. Max cable length of 30 m (99ft) for outputs 24 and 42													
00	No cable												
XX	01 to 99									10			
Unit of Length													
F	Feet										M		
M	Meter												
N	Inches												
0	No cables												
Pressure Ranges - Coding example only, see Table 5 on page 7 for more options													
10BR	10 bar											10BR	
Additional Options													
if choosing an option(s) must include an "X" e.g. =XNH													
Cleaning													
6B	Cleaned for gaseous Oxygen or other strong oxidizing agents												
6W	Cleaned for oxidizing processes other than Oxygen												
Marking And Tagging Option													
NH	Stainless steel tag wired *(Information is required by the customer)*												XNH
NN	Paper tag *(Information is required by the customer)*												
Others													
TU	Throttle plug												
Material Certificate													
CD2	Certificate according to EN 10204 2.2												

E2G Pressure Transducer

ACCESSORY

Offset and Span Adjustment Magnet 266A143-01

Accessories must be ordered separately

TABLE 2 - SENSOR PRESSURE RANGE

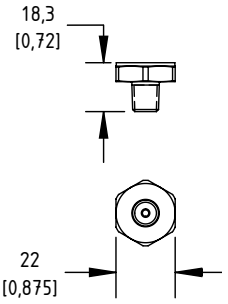
psi	Sensor Material				bar	Sensor Material				inHg	Sensor Material			
	A 17-PH	B 316L	C 316 ISO	D A286		A 17-PH	B 316L	C 316 ISO	D A286		A 17-PH	B 316L	C 316 ISO	D A286
5#			•		400MB			•		10IM			•	
10#			•		600MB			•		20IM			•	
15#			•		1BR			•		30IM			•	
30#	•		•		1.6BR			•		50IM			•	
45#	•	•	•		2BR			•		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			•						
10000#	•			•	V&1BR			•						
15000#	•			•	V&1.6BR			•						
20000#	•			•	V&2BR			•						
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 IN MM [INCH]

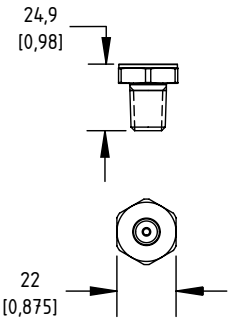
⅛ NPT Male
Code: M01

MAWP:1400 bar / 20,000 psi



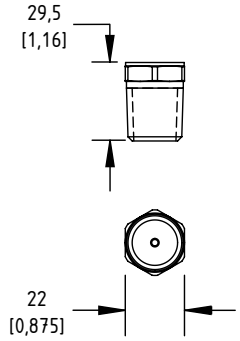
¼ NPT Male
Code: M02

MAWP:1400 bar / 20,000 psi



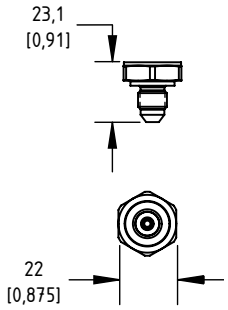
½ NPT Male
Code: M04

MAWP: 700 bar / 10,000 psi



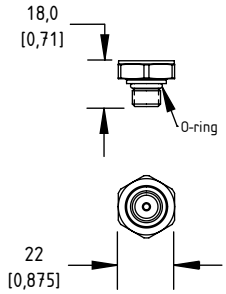
7/16-20 UNJF-3A 37° Flare (SAE AS4395)
Code: M76

MAWP:1400 bar / 20,000 psi



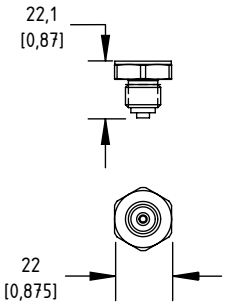
7/16-20 UNJF-2A SAE-Male (SAE J1926 O-Ring Boss seal)
Code: MEK

MAWP: 700 bar / 10,000 psi



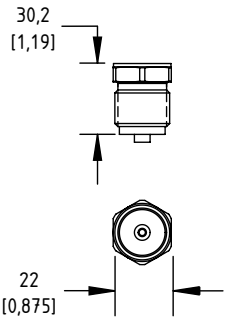
G¼ B-Male (EN837-1)
Code: MG2

MAWP:1400 bar / 20,000 psi



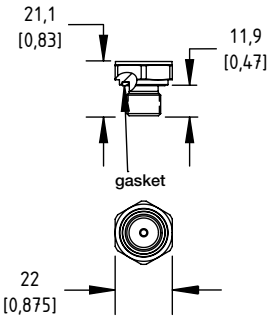
G½ B Male (EN837-1)
Code: MG4

MAWP: 700 bar / 10,000 psi



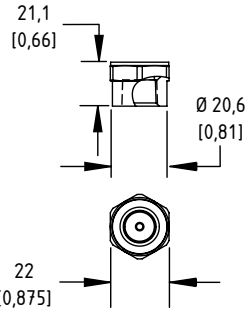
G½ A-MALE (stud end DIN 3852-E G½)
Code: MGA

MAWP: 700 bar / 10,000 psi



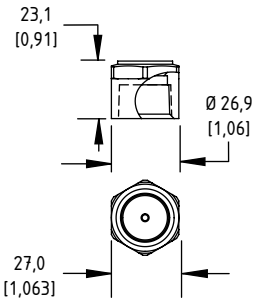
¼-18 NPT Female
Code: F02

MAWP: 700 bar / 10,000 psi



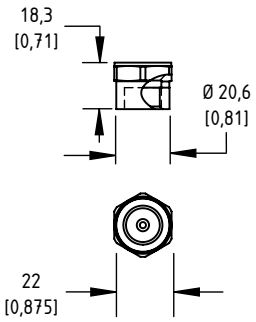
½-14 NPT Female
Code: F04

MAWP: 345 bar / 5,000 psi



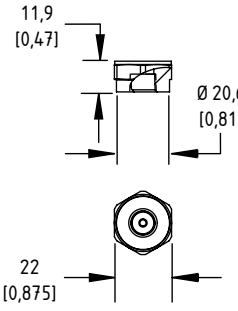
9/16-18 UNF-2B Female
Code: F09

MAWP: 1600 bar / 25,000 psi



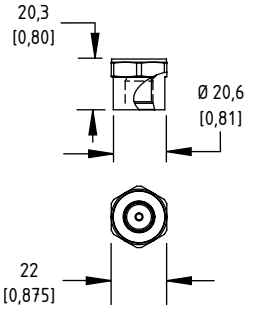
⅛ -27 NPT Female
Code: F01

MAWP: 700 bar / 10,000 psi



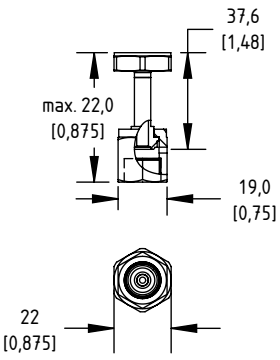
7/16-20 UNF-2B SAEJ1926
Code: FRW

MAWP: 627 bar / 9,100 psi



¼" VCR gland with 9/16-18 Female Swivel Nut
Code: FV2

MAWP: 350 bar / 5,100 psi



¼" VCR gland with 9/16-18 Male Swivel Nut
Code: MV2

MAWP: 350 bar / 5,100 psi

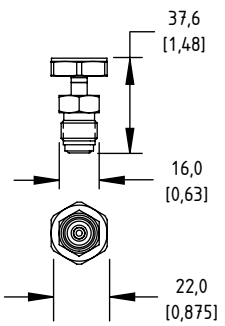


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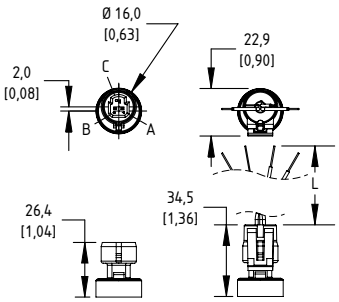
TABLE 4 - ELECTRICAL CONNECTION DIMENSIONS IN MM [INCH]

Maximum temperature range listed

Metri Pack 3-Pin

Code: GN – IP67 (NEMA 4X)

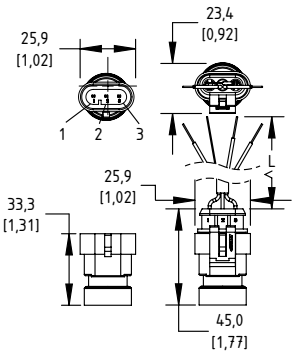
-40 °C to 85 °C (-40 °F to 185 °F)



AMP Superseal 3-Pin

Code: AP – IP66 (NEMA 4X)

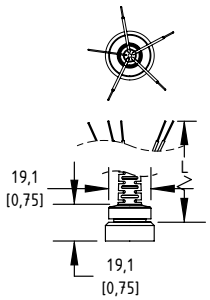
-40 °C to 85 °C (-40 °F to 185 °F)



Over-Mold Cable

Code: FC, FW – IP67 (NEMA 4X)

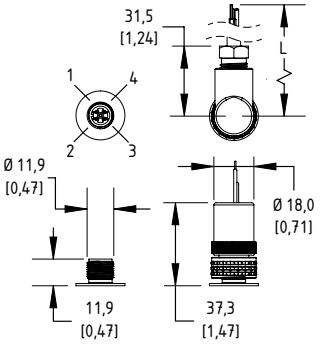
-40 °C to 85 °C (-40 °F to 185 °F)



M12 4-Pin

Code: EW – IP66 (NEMA 4X)

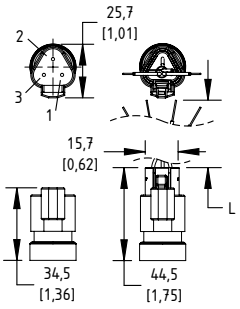
-40 °C to 85 °C (-40 °F to 185 °F)



DEUTSCH DT04 3-Pin

Code: DT – IP66 (NEMA 4X)

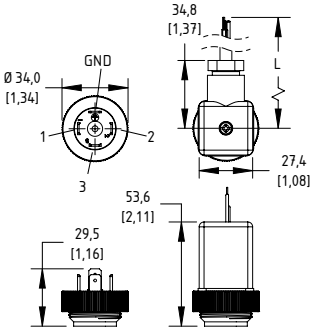
-40 °C to 85 °C (-40 °F to 185 °F)



Hirschman EN 175301-803 Form A

Code: DA – IP66 (NEMA 4X)

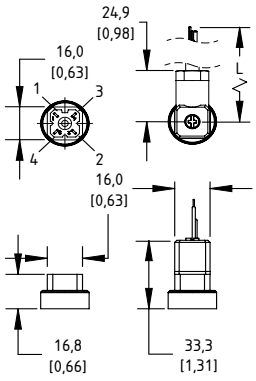
-40 °C to 85 °C (-40 °F to 185 °F)



Mini-Hirschman

Code: HM – IP66 (NEMA 4X)

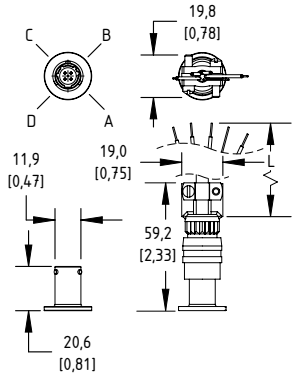
-40 °C to 85 °C (-40 °F to 185 °F)



MIL DTL 26482 8 4-Pin

Code: B4 – No IP or NEMA rating

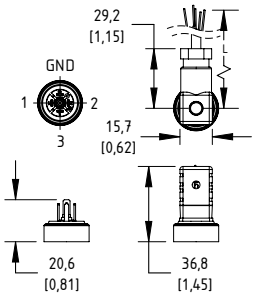
-25 °C to 105 °C (-40 °F to 221 °F)



Hirschman EN 175301-803 Form C

Code: DC
IP66 (NEMA 4X)

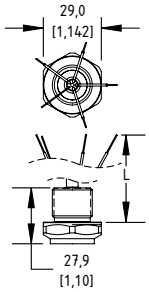
-40 °C to 85 °C (-40 °F to 185 °F)



M20 Conduit With Cable

Code: MC, MV
IP67 (NEMA 4X)

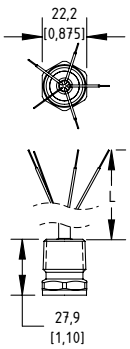
-40 °C to 125 °C (-40 °F to 257 °F)



½˝ NPT Conduit With Cable

Code: CC
IP67 (NEMA 4X)

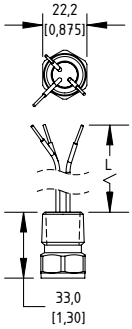
-40 °C to 125 °C (-40 °F to 257 °F)



½˝ NPT Conduit With Flying Leads

Code: CF
IP67 (NEMA 4X)

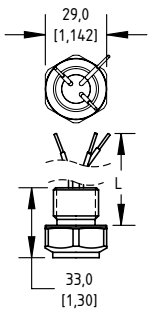
-40 °C to 125 °C (-40 °F to 257 °F)



M20 Conduit With Flying Leads

Code: MF
IP67 (NEMA 4X)

-40 °C to 125 °C (-40 °F to 257 °F)



E2G Pressure Transducer

TABLE 5 - PRESSURE RANGES

	PSI	bar	inHg
Vac.	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)	5#	400MB	10IM
	—	600MB	—
	10#	—	20IM
	15#i	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	—
	1000#	—	—
	15000#	1000BR	—
	20000#	—	—
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 in mm [inch]

For reference only, consult Ashcroft for specific dimensional drawings