4000 Series-High Performance, Long Term Stability Pressure Transducers

- Gauge, Sealed , Absolute, and Differential Pressure Models
- Submersible, General Purpose and Weather Proof Enclosures
- High Stability Achieved by Sputtered Sensing Element

The 4000 series provides exceptional levels of stability and other performance specifications in a wide variety of enclosures from submersible to differential styles. By using a sputtered sensing element, which achieves a molecular fusion of a strain gauge material, an insulating material, and the 17-4 PH ss sensing element, the 4000 series provides the most stable sensor construction possible. These sputtered sensors are packaged for harsh applications requiring long term service where precise laboratory type measurements are required.

Also in the 4000 series is a range of high performance amplified sensors with voltage and current outputs. These laboratory specification sensors utilise the same thin film sensor as 4000. For more information contact your nearest sales office, a list of offices can be found at the back of this catalogue.

Specifications

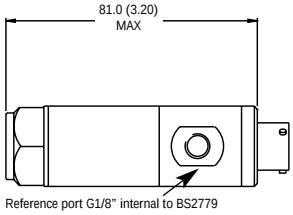
Input		
Pressure Range	4000 series; 1 to 690 bar, 4010 series; 15 to 10,000 psi	
Proof Pressure	2 x Full Scale (FS) (1.5 x FS for Inconel ports)	
Burst Pressure	>35 x Fs <= 10 bar (150 psi) ranges >15 x FS <= 100 bar (1500 psi) ranges >8 FS <= 690 bar (10,000 psi) ranges	
Fatigue Life	3 million FS cycles	
Common Line Pressure	max. 60 bar absolute (850 psia) differential units only	
Performance		
Output*	30mV +/- 1% (certificate supplied) (4010, 25 to 33 mV)	
Supply Voltage (Vs)	10 Vdc Regulated (15 Vdc max)	
Long Term Drift	0.06% per year non cumulative	
Performance Code	Accuracy	Thermal Error
	typical	typical
J	0.1 % span	1.2 % span
K	0.1 % span	0.6 % span
L	0.08 % span	0.6 % span
M	0.08 % span	0.3 % span
Compensated Temperatures	-54° to 120 °C (-65° to 250° F)	
Operating Temperatures	-54° to 135° C (-65° to 275° F) for twist lock conn. “C” -54° to 120° C (-65° to 250° F) for cable units “D” -20° to 50° C (-4° to 122° F) for submersible unit “M”	
Zero Tolerance	0 mV +/- 1 mV for performance codes J & K 0 mV +/- 0.6 mV for performance codes L & M	
Bridge Resistance	2200 to 5250 ohms	
Mechanical Configuration		
Pressure Port	see ordering chart	
Wetted Parts	17-4 PH ss (optional Inconel) [17-4 PH and 15-7 Mo Stainless Steel <= 1.6 bar (30 Psi)] Differential: dry non corrosive gas only on reference port	
Electrical Connection	see ordering chart	
Enclosure	321 ss case IP40 for elec. Code “C” gauge datum IP65 for elec. Code “C” Absolute or Sealed Datum IP66 (weatherproof) for elec. code “D” IP68 (submersible) for elec. code “M”	
Vibration	35g peak sinusoidal, 5 to 2000 Hz	
Shock	Withstands free fall to EIC 68-2-32 proc 1	
Approvals	CE	
Weight	150 grams max (excluding cable	

Note: * Inconel 2.5bar (30 psi) range output is 25 mV +/- 1%

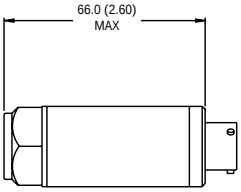
Electrical connection		**Voltage units**				
		IN+	**OUT+**	**OUT-**	**IN-**	**Case Earth**
C	“10-6 Bayonet”	A	B	C/F	D/E	
D	Weatherproof cable	Red	Yellow	Blue	White	Screen
M	IP 68 cable	Red	Yellow	Blue	White	Screen

Dimensions mm (in.)

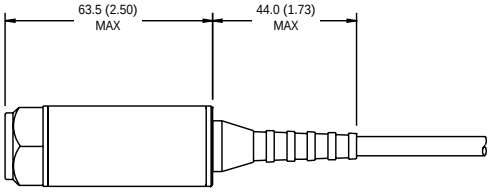
Differential Code C



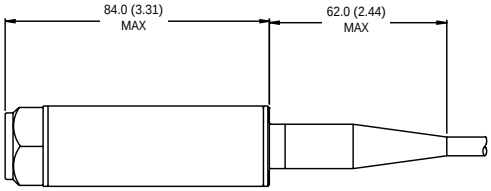
Absolute and Gauge Code C



Absolute and Gauge Code D



Absolute and Gauge Code M



Maximum diameter 25.7 mm (1”)

Meyer Industrie-Electronic GmbH – MEYLE
Carl-Bosch-Straße 8
49525 Lengerich/Germany
Internet: www.meyle.de
Tel.: (+49) 05481/9385-0
Fax: (+49) 05481/9385-12
E-Mail: sales@meyle.de

How to Order

Use the **bold** characters from the chart below to construct a product code

SELECT: **4000 K G B10 00 D 2 D J**

1. **4000** series for bar ranges, **4010** series for psi ranges
2. Bridge Resistance: **K** is 3500 ohms
3. Pressure Datum:
   G gauge; **A** absolute; **S** sealed; **U** uni-directional differential *
4. Insert pressure range code from table below
5. Pressure Port see chart
6. Electrical Connection
   C Fixed plug size 10-6, mate sold separately part # 499532-0006
   D Weatherproof Cable IP 66
   M Immersible Moulded Cable IP68
7. Approvals/Protection
   2 CE; **N** Hardened lighting protection, requires cable versions for electrical connector
8. Cable Length in meters (requires electrical connection to be cable codes D or M)
   U no cable **E** 3 **G** 10 **J** 20 **L** 30 **N** 50 **Q** 100 **S** 150
   D 1 **F** 5 **H** 15 **K** 25 **M** 40 **P** 75 **R** 125
9. Static/Thermal Performance
   J 0.1%/1.2%; **K** 0.1%/0.6%; **L** 0.08%/0.6%; **M** 0.08%/0.3%

*Differential datum units are available in electrical code “C” only and performance codes either “L” or “M” only.

4000 Model Bar Ranges	Range Code	Gauge (G) Absolute (A) Sealed (S) Differential (U)
0 to 1	A10	**G, A, U**
0 to 1.6	A16	**G, A, U**
0 to 2.5	A25	**G, A, U**
0 to 4	A40	**G, A, U**
0 to 6	A60	**G, A, U**
0 to 10	B10	**G, A, U, S**
0 to 16	B16	**G, A, S**
0 to 25	B25	**G, A, S**
0 to 40	B40	**G, A, S**
0 to 60	B60	**G, A, S**
0 to 100	C10	**G, A, S**
0 to 160	C16	**G, A, S**
0 to 250	C25	**G, A, S**
0 to 400	C40	**G, A, S**
0 to 600	C60	**G, A, S***
0 to 690	C69	**G, A, S***

4010 Model PSI Ranges	Range Code	Gauge (G) Absolute (A) Sealed (S) Differential (U)
0 to 15	F15	**G, A, U**
0 to 30	F30	**G, A, U**
0 to 60	F60	**G, A, U**
0 to 100	G10	**G, A, U**
0 to 150	G15	**G, A, U**
0 to 300	G30	**G, A, S, U**
0 to 500	G50	**G, A, S**
0 to 1000	H10	**G, A, S**
0 to 1500	H15	**G, A, S**
0 to 3000	H30	**G, A, S**
0 to 6000	H60	**G, A, S**
0 to 10000	J10	**G, A, S***

* Diaphragm and internal port Inconel, external adaptors are available in stainless steel

Pressure Ports

Codes		Description
SS	**Inconel**	
OO	OK	G 1/4 internal
AO	AK	G 1/4 AT external
KO	KK	7/16-20 UNF-3A external
MO	MK	M14 x 1.5 external
PO	PK	G1/2 AT external
BO	BK	1/4-18 NPT external
GO	GK	1/2-14 NPT external
SO	SK	7/16-20 UNJF-3A, MS 33656F4
10	10	Plastic nosecone
20	20	Plastic nosecone with restrictor
30	30	Sink weight nose cone

Differential Units	
OD	G1/4 internal ss, G1/8 internal ss
OL	G1/4 internal Inconnel, G1/8 internal ss

For Pressure Port dimensions see page 39

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Tel.: (+49) 05481/9385-0
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E-Mail: sales@meyle.de