

4600 Series-High Performance, High Stability, with 5:1 Turndown Capability Industrial Transmitters

- ▶ Gauge, Sealed and Absolute Models
- ▶ Submersible, General Purpose and Wash down Enclosures
- ▶ IS Models

The 4600 series provides precise laboratory type measurements in a rugged industrial package complete with turndown capabilities. Exceptional levels of stability and other performance specifications are achieved 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. Sputtered or thin film technology provides years of worry free measurements under demanding real world conditions.

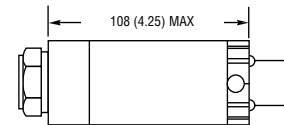
Specifications

Input	
Pressure Range	4600, 1 bar to 690 bar; 4610 10 to 10,000 psi
Proof Pressure	2 x Full Scale (FS) for Stainless Steel Units 1.5 x FS for Inconel Units
Burst Pressure	>35 x Fs <= 10 bar ranges >15 x FS <= 100 bar ranges >8 FS <= 690 bar ranges
Fatigue Life	3 million FS cycles
Performance	
Output	4-20 mA (2 wire)
Supply Voltage (Vs)	8 to 40 Vdc
Supply Voltage Sensitivity	0.005% of max. span/Volt
Long Term Drift	0.1% of max span per year non-cumulative
Accuracy	0.1 % FS typical
Thermal Error (typical)	0.8% of max span for performance code E 0.5% of max span for performance code F
Compensated Temperatures	-25° to 75° C (-13° to 167° F)
Operating Temperatures	-25° to 85° C (-13° to 185° F) elec. conn. code C & G -20° to 50° C (-4° to 122° F) elec. conn. code F -30° to 100° C (-22° to 212° F) process/media
Zero Tolerance	0.1% FS, typical
Span Tolerance	0.1% FS, typical
Zero Adjustment	+/- 10% (100% at factory) by potentiometer
Span Adjustment	25% to 125 % of span by potentiometer
Max. Loop Resistance	(Vs-8) x 50 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)]
Electrical Connection	see ordering chart
Enclosure	321 ss, 17-4 PH ss and glass filled polyester IP40 for gauge datum & electrical conn. code C & G IP65 for absolute and sealed datum & elec. conn. code C IP65 for electrical connection code G IP68 for electrical connection code F
Vibration	35g peak sinusoidal, 5 to 2000 Hz
Acceleration	100g steady acceleration in any direction 0.05% FS/g for 1 bar (15 psi) range decreasing logarithmically to 0.0001% FS/g for 690 bar (10000 psi) range.
Shock	Withstands free fall to IEC 68-2-32 procedure 1
Approvals	CE, optional Intrinsically Safe EEx ia IIC T4 per CENELEC, (Quality Assurance Certificate Supplied)
Weight	approx. 305 g (additional; cable 75 grams/m)

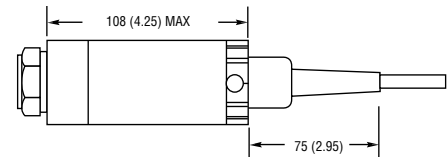


Dimensions mm (in.)

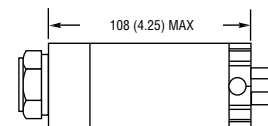
Code C



Code F



Code G



Diameter 39 (1.54)

Electrical connection	Wiring			
		(+)	(-)	EARTH
G "DIN"	1	2	4	
C "10-6 Bayonet"	A	B	E	
F IP 68 cable	R	BL	DRAIN	

R = Red BL = Blue

How to Order

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

- SELECT: **4600 B G B10 00 G 3 U E**
1. **4600** bar units, **4610** psi units, **46AD** seawater units
 2. Output Response: **B** 4-20 mA Undamped; 2 4-20 mA damped, 3 second response
 3. Pressure Datum: **G** gauge; **S** sealed; **A** absolute
(For differential models and compound ranges consult sales)
 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
F Submersible cable, to 200 meters
G Fixed plug to DIN 43650 mating plug supplied
 7. Approvals/Protection (For flame proof units see next page)
3 CE; **G** CENELEC approved intrinsically safe EEIa IIC T4, Galvanic, isolators
 8. Cable Length in meters (requires electrical connection code F)
U no cable **D** 1 **F** 5 **H** 15 **K** 25 **M** 40 **P** 75 **R** 125
E 3 **G** 10 **J** 20 **L** 30 **N** 50 **Q** 100 **S** 150
 9. Static/Thermal Performance
E 0.1%/0.08%; **F** 0.1%/0.5%. 500mbar range performance code **E** only

* 46AD seawater sensors are hastelloy and Inconel construction and require Inconel pressure ports.

4600 Model Bar Ranges	Range Code	Gauge (G)* Absolute (A) Sealed (S)
0 to 500mb	N50	G, A
0 to 1	A10	G, A
0 to 1.6	A16	G, A
0 to 2.5	A25	G, A
0 to 4	A40	G, A
0 to 6	A60	G, A
0 to 10	B10	G, A, 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**

4610 Model PSI Ranges	Range Code	Gauge (G)* Absolute (A) Sealed (S)
0 to 10	F10	G
0 to 15	F15	G, A
0 to 30	F30	G, A
0 to 60	F40	G, A
0 to 100	G10	G, A
0 to 150	G15	G, A
0 to 200	G20	G, A
0 to 300	G30	G, A, S
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 5000	H50	G, A, S
0 to 6000	H60	G, A, S
0 to 10000	J10	G, A, S**

* For compound ranges please consult factory
** Inconel pressure port required.

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 external, MS 33656E4

Immersible

10	Plastic nose cone
20	Nose cone with restrictor
30	Nose cone w/ss Sink Weight

PRESSURE TRANSDUCERS