1700 Series-Hygienic Pressure Transmitters

- Pressure Ranges from 100 Millibar to 40 Bar
- Sanitary or G1 Process Connections
- Voltage and Current Output Models
- Temperature Cooling Options Available for 302ºF or 572ºF (150°C or 300°C) Operation

The 1700 series features a stainless steel diaphragm with various process connections suitable for dairy and pharmaceutical applications. The 1700 is suitable for both static and dynamic pressure measurement in the ranges from 100 millibar to 40 bar and is available with a choice of electrical outputs and connecctions.

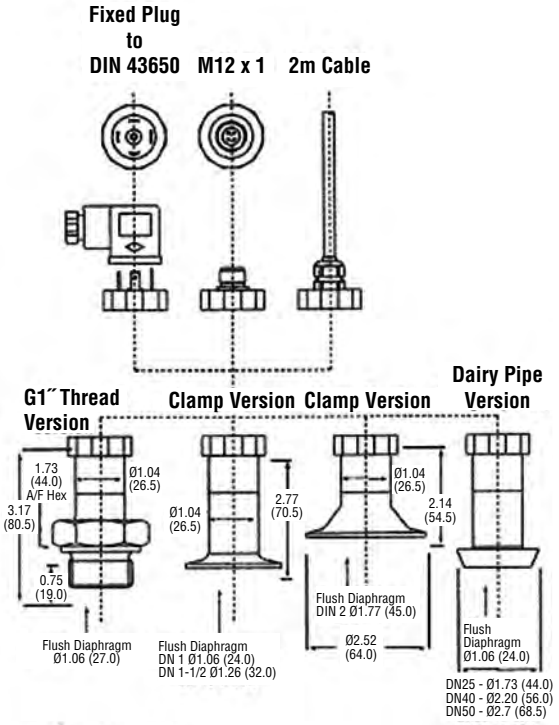
Specifications

Input	
Pressure Range	0 to 600 psi (0 to 40 bar) Gauge and Absolute
Proof Pressure	>2 x Full Scale
Burst Pressure	>2 x Full Scale
Fatigue Life	Designed for more than 100 million cycles
Performance	
Long Term Drift	±0.2% span/annum
Accuracy	0.25%
Thermal Error Over Compensated Temperature	1% (0°C to 70°C), 2% for 100, 250, and 400 millibar ranges (0°C to 50°C)
Operating Temperatures	-13°F to +185°F (-25°C to +85°C) -13°F to +257°F (-25°C to +125°C) media
Zero Tolerance	1% of span
Span Tolerance	1% of span
Mechanical Configuration	
Pressure Port	see ordering chart
Wetted Parts	316 S/S: Seals Viton® (G1 thread only)
Electrical Connection	see ordering chart
Enclosure	IP65 = G (with connector fitted) IP67 = E & F
Fill Fluid	Silicon oil or food grade
Vibration	10g rms, 20 - 2000Hz
Acceleration	10g
Shock	100g 11ms
Approvals	CE, EXII 1G, E Exia IIC T4
Weight	175gm
Voltage Output Units	
Output	see ordering chart
Supply Voltage (Vs)	12 to 36Vdc
Supply Voltage Sensitivity	0.005% FS/Volt
Min. Load Resistance	10Kohm
Current Consumption	15 mA max
Current Output Units	
Output	4 - 20mA 2 wire
Supply Voltage (Vs)	12 to 36Vdc (IS units 14 - 28 volts)
Supply Voltage Sensitivity	0.005% FS/Volt
Max. Loop Resistance	(Vs-12) x 50 ohms

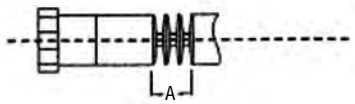
EMC Specifications

Emissions & Immunity according to EN61326.

Dimensions inch (mm)



Cooling Element



Temperature Range	Size A	Number of Cooling Fins
302ºF (150°C)	0.87 (22)	2
572ºF (300°C)	1.34 (34)	3

Intrinsically Safe units length increased by 1.06˝ (27 mm).

How to Order

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

1700 B G A10 C2 2 1 0 G 3 2 0

Series
1700

Output
B - 4-20mA
S - 0-10V

Datum
G - Gauge
A - Absolute

Pressure Range
N10 - 0.10 bar **N25** - 0.25 bar **N40** - 0.40 bar **N60** - 0.60 bar
A10 - 1 bar **A16** - 1.6 bar **A40** - 4 bar **A60** - 6 bar
B10 - 10 bar **B16** - 16 bar **B25** - 25 bar **B40** - 40 bar
1A0 - -1 to 0 bar

Pressure Connection
F3 - G1″ DIN 3852[1] **F4** - G1 1/2″ DIN 3852
C1 - Clamp DN 1″[3] **C2** - Clamp DN 1 1/2″[2]
C3 - Clamp DN 2″[1] **D1** - Dairy Pipe DN 25[2]
D2 - Dairy Pipe DN 40[24] **D3** - Dairy Pipe DN 50[14]

Filling Liquid
1 - Silicon Oil
2 - Food compatible, Mobil DTEFM32
C - Halocarbon

Special Versions
0 - Standard
1 - Cooling Element up to 150°C[5]
2 - Cooling Element up to 300°C[5]
3 - Dairy Pipe Mating Nut[45]

Accuracy
2 - ±0.25% (>0.4 bar)

Approvals
3 - CE Mark
G - Intrinsic Safety Ex II 1G, EEx ia IIC T4 (-20<Ta+60°C)

Electrical Connection
E - M12 x 1 (4 Pin)
F - Cable Gland including 2m Cable
G - Fixed Plug to DIN 43650

Diaphragm Material
0 - Stainless Steel

Seal
0 - No Seal
1 - Viton® (Supplied with G1″ Pressure Port only)

Electrical Connections

Electrical Connection Code	2-Wire System			3-Wire System			
	Supply +	Supply –	Ground	Supply +	Supply –	Signal +	Ground
E M12 x 1 (4-pin)	1	2	4	1	2	3	4
F Cable	WH	BR	DRAIN	WH	BR	G	DRAIN
G "DIN 43650"	1	2	GROUND	1	2	3	GROUND

Cable Legend:
WH = White
BR = Brown
G = Green

Notes:
1. Not available for ranges ≤250mb.
2. Not available for ranges ≤400mb.
3. Not available for ranges ≤600mb.
4. For Dairy Pipe Mating Nut.
5. Please state media temperature (max 85°C) and mounting orientation.

1701 Series-Flush Diaphragm Pressure Transmitters

- Stanless Steel Wetted Parts with Flush Diaphragm
- G1/2, G3/4 or G1 Threads and Sanitary
- Voltage and Current Output Models

The 1701 series features a stainless steel flush diaphragm on a threaded process connection making it ideal for slurries, suspended solids in liquids and viscous liquids where recessed diaphragms could become blocked. The 1701 is suitable for both static and dynamic pressure measurement in the ranges from 15 PSI to 5802 PSI (1 bar to 400 bar) and is available with a choice of electrical outputs and connections.

Specifications

Input	
Pressure Range	0 to 6000 psi (0 to 400 bar) Gauge 0 to 370 psi (0 to 25 bar) Absolute
Proof Pressure	>2 x Full Scale (1.5 x for 400 bar)
Burst Pressure	>2 x Full Scale
Fatigue Life	Designed for more than 100 million cycles
Performance	
Long Term Drift	±0.2% span/annum
Accuracy	0.25%
Thermal Error	2% max
Compensated Temperature	-13°F to +185°F (-25°C to +85°C)
Operating Temperatures	-13°F to +185°F (-25°C to +85°C) -13°F to +257°F (-25°C to +125°C) media
Zero Tolerance	1% of span
Span Tolerance	1% of span
Mechanical Configuration	
Pressure Port	see ordering chart
Wetted Parts	316 S/S: Seals <100 bar Viton® >100 bar Nitrite
Electrical Connection	see ordering chart
Enclosure	IP65 = G (with connector fitted) IP67 = E & F
Fill Fluid	Silicon oil or food grade
Vibration	10g rms, 20 - 2000Hz
Acceleration	10g
Shock	100g 11ms
Approvals	CE, EXII 1G, E Exia II CT4
Weight	225gm
Voltage Output Units	
Output	see ordering chart
Supply Voltage (Vs)	14 to 36Vdc
Supply Voltage Sensitivity	0.005% FS/Volt
Min. Load Resistance	10Kohm
Current Consumption	15 mA max
Current Output Units	
Output	4 - 20mA 2 wire
Supply Voltage (Vs)	12 to 36Vdc (IS units 14 - 28 volts)
Supply Voltage Sensitivity	0.005% FS/Volt
Max. Loop Resistance	(Vs-12) x 50 ohms

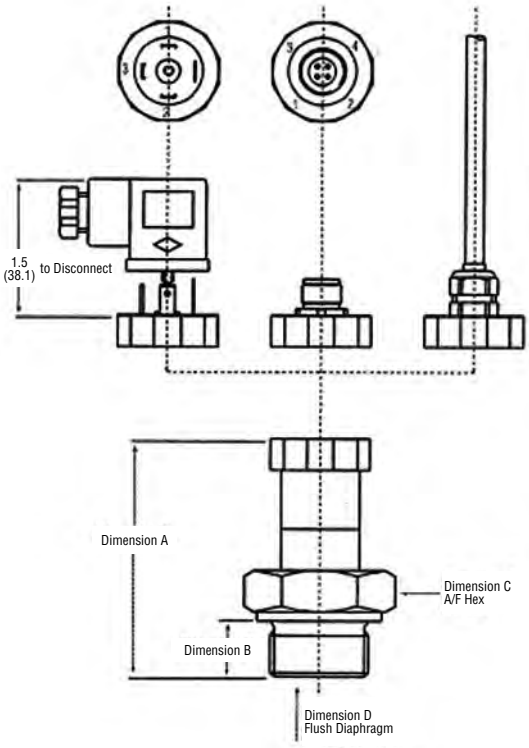
EMC Specifications

Emissions & Immunity according to EN61326.

Dimensions inch (mm)

MECHANICAL CONNECTION
Inch Thread

Fixed Plug to DIN 43650 (1701X-G3) | **M12 x 1 (1701X-E3)** | **2m Cable (1701X-F3)**



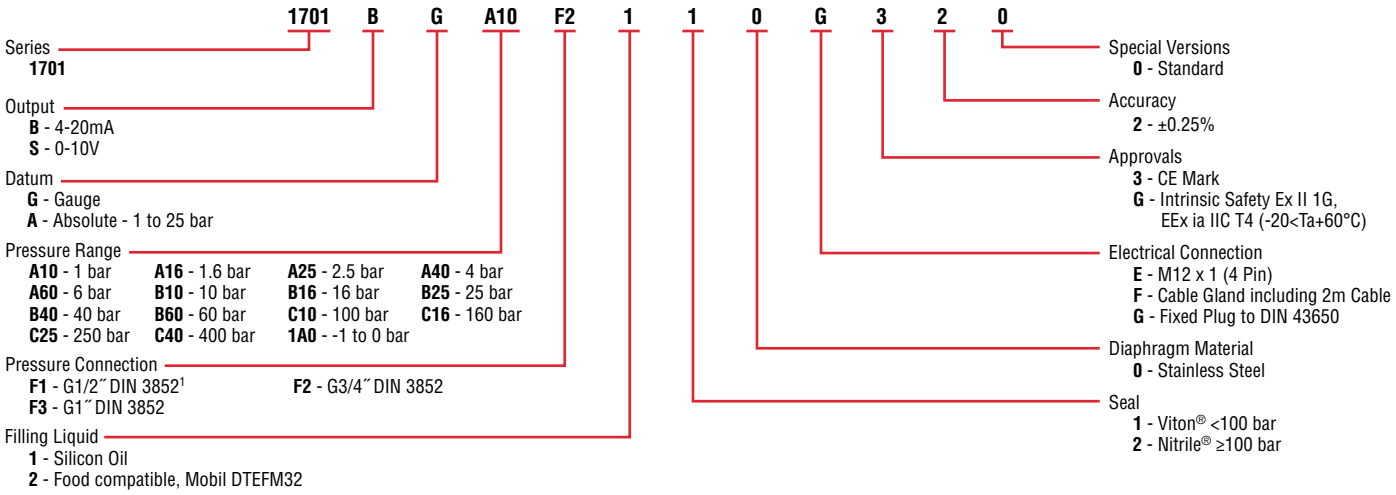
	Dim A	Dim B	Dim C	Dim D
G1/2˝ Thread	3.01 (76.5)	0.59 (15.0)	1.06 (27.0)	0.71 (18.0)
G3/4˝ Thread	3.09 (78.5)	0.63 (16.0)	1.34 (34.0)	0.87 (22.0)
G1˝ Thread	3.17 (80.5)	0.75 (19.0)	1.73 (44.0)	1.10 (28.0)

Intrinsically Safe units length increased by 1.06˝ (27 mm).

Order from: C A Briggs Company; 622 Mary Street; Suite 101 - Warminster, PA 18974
Phone: 267-673-8117 - 800-352-6265 - Fax: 267-673-8118; E-Mail: Sales@cabriggs.com - www.cabriggs.com

How to Order

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



Electrical Connections

Electrical Connection Code	2-Wire System			3-Wire System			
	Supply +	Supply –	Ground	Supply +	Supply –	Signal +	Ground
E M12 x 1 (4-pin)	1	2	4	1	2	3	4
F Cable	WH	BR	DRAIN	WH	BR	G	DRAIN
G "DIN 43650"	1	2	GROUND	1	2	3	GROUND

Cable Legend:

WH = White
BR = Brown
G = Green

Notes:
1. Not available for ranges ≤1.6mb.

PRESSURE TRANSDUCERS

1702 Series-Fixed Range Low Pressure Transmitters

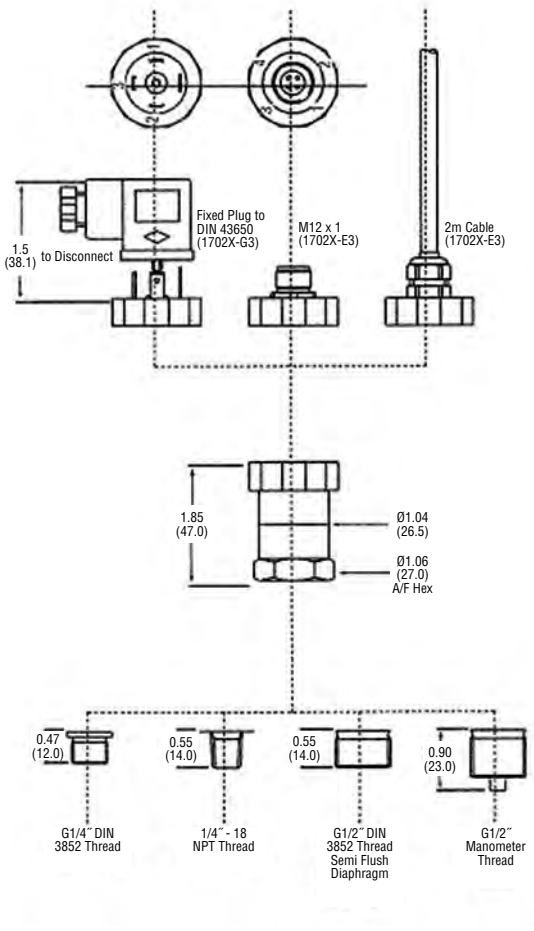
- Pressure Ranges from 40 millibar to 1 Bar
- 316 S/S Diaphragm
- Voltage and Current Output Models
- Choice of Enclosures and Pressure Fittings

The Gems 1702 low range pressure transmitter is ideal for pneumatics, process control and chemical processes. Featuring a 316 S/S diaphragm and Viton® o-ring the 1702 is compatible with many corrosive medias. A choice of process connections makes the units suitable for direct pipe mounting whilst optional eletrical outputs and connections allow interfacing with most systems.

Specifications

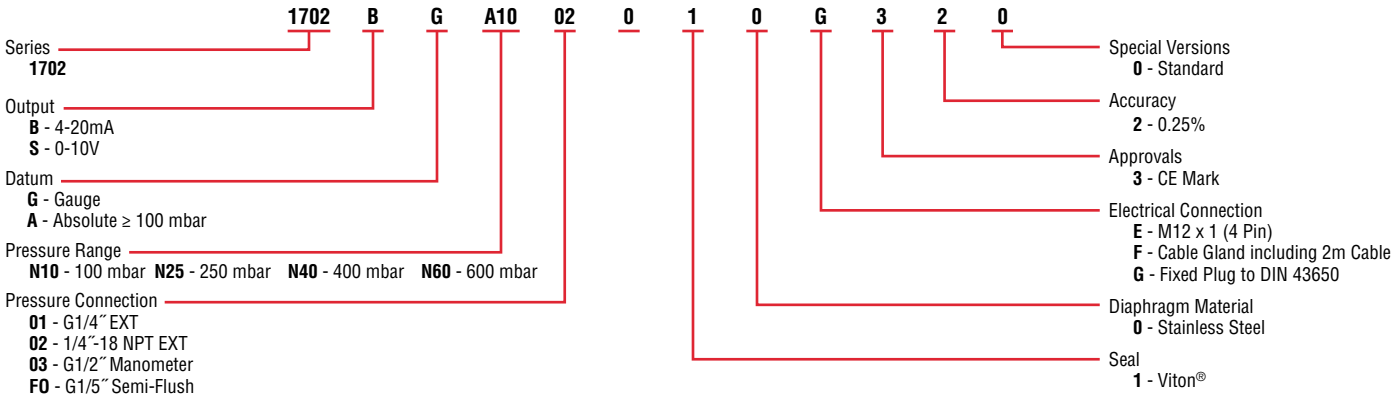
Input	
Pressure Range	100 mbar to 1 bG, 100 mbar to 1bA
Proof Pressure	>2 x Full Scale
Burst Pressure	>2 x Full Scale
Fatigue Life	Designed for more than 100 million cycles
Performance	
Long Term Drift	±0.1% span/annum
Accuracy	0.25%
Thermal Error Over Compensated Temperature	1% (0°C to 70°C) - 1 bar, 2% for 100 mbar to 400 mbar ranges (0°C to 50°C)
Operating Temperatures	-13°F to +185°F (-25°C to +85°C) -13°F to +257°F (-25°C to +125°C) media
Zero Tolerance	1% of span
Span Tolerance	1% of span
Mechanical Configuration	
Pressure Port	see ordering chart
Wetted Parts	316 S/S, Viton®
Electrical Connection	see ordering chart
Enclosure	IP65 = G (with connector fitted) IP67 = E & F
Vibration	10g rms, 20 - 2000Hz
Acceleration	10g
Shock	100g 11ms
Weight	140gm
Voltage Output Units	
Output	see ordering chart
Supply Voltage (Vs)	12 to 36Vdc
Supply Voltage Sensitivity	0.005% FS/Volt
Min. Load Resistance	10Kohm
Current Consumption	7 mA max
Current Output Units	
Output	4 - 20mA 2 wire
Supply Voltage (Vs)	12 to 36Vdc
Supply Voltage Sensitivity	0.005% FS/Volt
Max. Loop Resistance	(Vs-12) x 50 ohms

Dimensions inch (mm)



How to Order

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



Electrical Connections

Electrical Connection Code	2-Wire System			3-Wire System			
	Supply +	Supply –	Ground	Supply +	Supply –	Signal +	Ground
E M12 x 1 (4-pin)	1	2	4	1	2	3	4
F Cable	WH	BR	DRAIN	WH	BR	G	DRAIN
G "DIN 43650"	1	2	GROUND	1	2	3	GROUND

Cable Legend:

WH = White

BR = Brown

G = Green

PRESSURE TRANSDUCERS

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