



Bellatrix Series Electronic Pressure Switch

Catalogue



BELLATRIX SERIES ELECTRONIC PRESSURE SWITCH



APPLICATIONS:

- Hydraulic systems
- Pneumatic systems
- Pump operations and compressor controls
- Level measurement and control applications
- Marine applications
- Chemical and petrochemical industries
- Space and defense applications
- Highly sensitive and vital Medical Equipment
- Can add all applications as per our consolidated catalogue
- Power generation
- Glass and metal industries
- Steel industries
- Water treatment

SPECIAL FEATURES:

- Weatherproof (IP65)
- Proven technology
- Precise measurement
- Rigorous operating conditions
- Good stability and linearity
- Customised arrangements for pressure values possible on request

Output : Digital O/p - 02, Analog O/p – 01

Process connection : 1/4" BSPF

Sensing element : Ceramic / SS

Media temp. : - 25°C to 80°C

P max and Proof pressure : T.B.D

Vacuum resistance : -1 bar

Type of pressure : Gauge / Differential / Absolute

■ Electrical data

Operating voltage : 18 – 30 VDC

Current consumption : <35 mA (no load consumption)

Reverse polarity protection : Yes

Integrated watch dog : Yes

■ Operating conditions

Ambient temp. : - 10°C to 60°C

Storage temp. : - 40°C to 100°C

Humidity : Non-condensing 90%

Protection : IP65

■ Outputs

Electrical design : PNP/NPN/both

O/p function : NO/NC (parameterisable)

Max volt. drop switching o/p DC : 2.5V

Permanent current rating of switching o/p DC:

150mA; 200(60°C); 250 (40°C)

No. of analog o/p : 01

Analog current o/p : 4-20mA

Max. load : 500Ω

Short circuit protection : Yes

Overload protection : Yes

■ Accuracy / deviations

Switch point accuracy : < ± 0.5 (% of span)

Repeatability : < ± 0.1 (% of span)

■ Response times

Response time (ms) : <10

Delay time programmable (s) : 0 to 50

Max. response time analog o/p (ms) : 10

■ Display

Display unit : Bar/Psi/KPa/MPa/mmWC

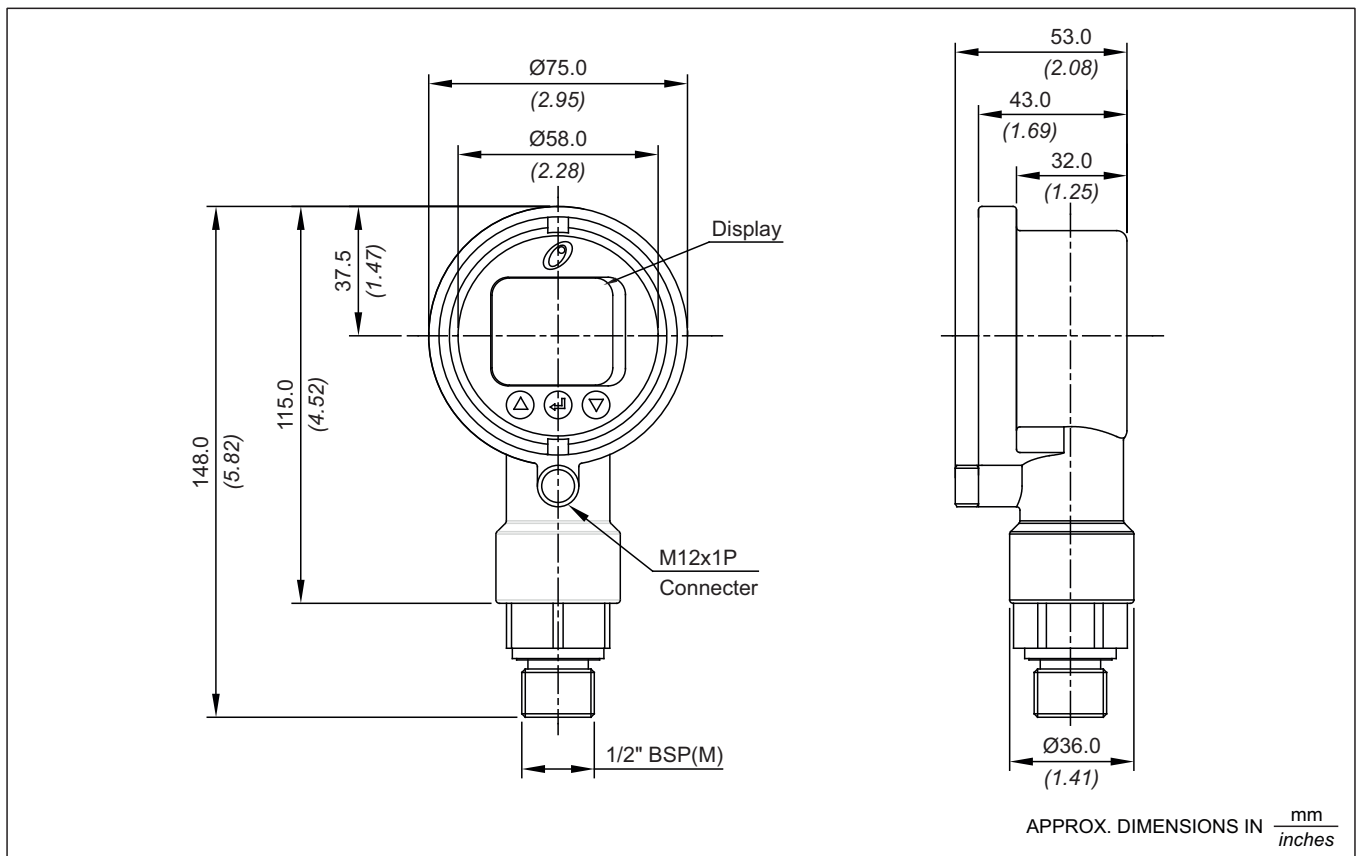
Switching status : Text (R1, R2)

Measured values: Graphical display (4 digit)

■ Electrical connection

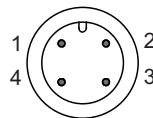
Connector : 1 x M12

BELLATRIX SERIES ELECTRONIC PRESSURE SWITCH



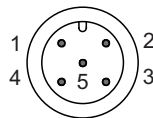
ELECTRICAL CONNECTION

Electrical Connection
Circular Connector M12x1 (4-pin)



Function	Pin Assignment
U+	1
U-	3
S+ / SP2	2
SP1	4

Circular Connector M12x1 (5-pin)



U+	1
U-	3
S+	5
SP1	4
SP2	2

Legend :

- U+ - Positive Power Supply Terminal
- U- - Reference Potential
- SP1 - Switching Output Terminal 1 (digital)
- SP2 - Switching Output Terminal 2 (digital)
- S+ - Positive Output Terminal (analog)

BELLATRIX SERIES ELECTRONIC PRESSURE SWITCH

RANGE SELECTION TABLE

HIGH PRESSURE RANGES																
Range Code	LP0	LP5	H01	H02	H03	H04	H07	H10	H15	H30	H4T	100	160	250	400	600
Range (bar)	0.2	0.6	1.0	1.6	2.5	4.0	7.0	10.0	15.0	25.0	40.0	100.0	160.0	250.0	400.0	600.0
Max. Pressure (bar)	0.2	0.6	1.0	1.6	2.5	4.0	7.0	10.0	15.0	25.0	40.0	100.0	160.0	250.0	400.0	600.0

DIFFERENTIAL PRESSURE RANGES									
Range Code	LP0	LP5	H01	H02	H03	H04	H07	H10	H15
Range (bar)	0.2	0.6	1.0	1.6	2.5	3.5	7.0	10.0	15.0
Max. Pressure (bar)	70	70	70	70	70	70	70	7.0	70

Notes :

1. High pressure side and Low pressure side are marked "H" and "L" on the sensor.
2. The pressure on the high side should always be greater than that on the low side.
3. Kindly protect the diaphragm to prevent any damage to the electronic pressure switch.

HOW TO ORDER BELLATRIX SERIES PRESSURE SWITCH

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
Non standard allocation 'N'	Model	Electrical connection	Device type and Pressure type	Pressure range	Electrical output	Pressure port material and port size	Type of sensor / material
☐ Reserved for non-standard options not covered in the catalogue. Will be given by manufacturer only after agreement of supply details with customer.	BX series electronic pressure switch	03 = M12 x 1 4 pin plug connector 04 = M12 x 1 5 pin plug connector	Device type P = pressure Pressure type G = gauge pressure A = absolute pressure D = differential pressure	Please select the pressure code from the table above	E0 = Analog (4-20mA) E1 = Digital (PNP/NPN) E3 = Analog + Digital	Port material S = SS316 Port size 01 = 1/4" BSPF 02 = 1/4" NPTF	01 = ceramic 02 = SS316

eg. A BX series electronic pressure switch with 4 pin DIN connector electrical connection, having 0-10 bar gauge pressure range with digital output, SS316 pressure port with 1/4" port size and ceramic sensor shall be specified by

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
☐	BX	03	PG	H10	E1	S01	01



Certificate No.: FM 72815

Kaustubha Udyog

AN ISO9001:2015 COMPANY

S. No. 36/1/1, Sinhgad Road, Vadgaon Khurd, Near Lokmat Press, Pune 411 041 INDIA

Tel. : +91-(0) 20-24393577 / 24393877

Telefax : +91-(0) 20-24393577 / 25460486

Email : info@orion-instruments.io

Website : www.orion-instruments.io