



Catalogue



PRESSURE GAUGE | SWITCH | TRANSMITTER | DATALOGGER

OGAUGE PRESSURE GAUGE

Ogauge is a pathbreaking device, which combines several functions in instrumentation in one single device. It is an IIoT pressure gauge, switch, a transmitter and also a datalogger.

With its integrated pressure measurement cell, a full coloured OLED display and 4 switching outputs, the Ogauge offers the user all the advantages of a modern electronic pressure switch, gauge and a transmitter.

4 switching points and switch-back points can be adjusted very simply and independently of one another using the onboard capacitive touch keypad. Programming is also possible through a mobile app. These can also be remotely set by an authorised person from a cloud based dashboard.

For optimum integration in monitoring systems (e.g. with PLC), two analogue outputs (voltage and current) are also provided.

The main areas of application of the Ogauge are in hydraulics and pneumatics, process control, tank level controls and many more. The instrument is ideal for use where frequent switching cycles (several million), stable switching point accuracy or simple and precise adjustability are required.

SPECIAL FEATURES

- IIoT capability
- Integrated pressure sensor with stainless steel membrane (special materials available)
- Accuracy 0.25% standard (finer accuracies are available)
- Full colour OLED informative display
- Simple operation via key programming, still simpler via mobile app
- Some parameters can be configured through a dashboard
- 4 limit relays, switching points and switch back points can be adjusted independently, a time delay can also be programmed
- Analogue output signal configurable
- Can be paired to a mobile via app to check live pressures
- Can be set to display values in any unit of measurement e.g.: kN, kg, psi, ...
- Same Ogauge can be used as a pressure gauge or a force gauge or a level gauge
- And many useful additional functions...

TECHNICAL DATA

Input Data

Measuring ranges : 10 mbar to 600 bar
Overload pressures : 1.5 times FSR
Tightening torque : 20 Nm
Mechanical connection : Threaded port 1/2" BSPM (other options available)
Parts in contact with medium : Stainless steel (other options available.)
Supply voltage : 18 .. 32 V DC
Current consumption : approx. 200 mA
Residual ripple of supply voltage : $\leq 10\%$
Electrical connection : 19-pole, circular MIL connector

Note: Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection are provided.

Output Data

Accuracy : $\leq \pm 0.25\%$ FS max.
Repeatability : $\leq \pm 0.1\%$ FS max.
Temperature drift : $\leq \pm 0.03\%$ FS / °C max. zero point & range
Analogue output : 4 .. 20 mA ohmic resistance ≤ 400 Ohms
0 .. 10 V ohmic resistance ≥ 2 kOhms

Switch Outputs :

Type : 4 hermetically sealed SPDT relays with change-over contacts (independent potential free contacts)
Switching voltage and current : 5 A, 250 VAC / 5A, 30 VDC
Switching capacity : max. 1250 W / 1250 VA (for inductive load, use varistors)
Switching cycles : 1 million at minimum load
0.1 million at maximum load
Reaction time : < 20 ms

Environmental Conditions

Operating temperature range : -25 .. +60 °C
Storage temperature range : -40 .. +80 °C
Fluid temperature range : -25 .. +80 °C
(Also generally complies with EN 50178, Tab. 7, Type C, Class 4K4H Operation, 1K4 Storage, 1K3 Transport)

Protection class : IP 66

Other Data

Display : Full colour OLED display
Housing material : Stainless Steel case
Weight : ~ 800 g (noted for popular pressure gauge device type, varies with models)

SETTING OPTIONS

The core of the unit is a microprocessor which provides many useful extra functions in addition to normal pressure switch operation. It is possible, for example, to activate switching delay times to prevent fast pressure peaks from triggering an unwanted switching cycle. Most settings are made using the keypad. More options and ease of operation is possible through the mobile app.

Setting ranges of the switching points :

- Switching point relay 1 to 4 (upper value) : 1.5 % .. 100 % FS
- Switch-back relay 1 to 4 (lower value) : 1 % .. 99 % FS or alternatively

Additional setting options:

- Switching direction of the relays 1 to 4 : (N/C to N/O)
- Switch-on delay : relays 1 to 4 in the range 0.00 .. 99 seconds
- Switch-off delay relays 1 to 4 in the range 0.00 .. 99 seconds
- Switch-back mode (Auto reset / Manual reset)
- Display of the actual pressure / pressure + relay status / pressure + relay status and values
- Display range scale individually adaptable (bar, psi, several other units)
- Measurement unit is displayed
- Analogue outputs (4 .. 20 mA (other options settable) and 0 .. 10 V (other options settable))
- 3 security levels : viewer, operator and admin with different rights for each role

RANGE SELECTION TABLE

HIGH PRESSURE RANGES

Range Code	Range (bar ⁴)	Maximum Pressure (bar)
LP0	0 – 0.2	0.2
LP5	0 – 0.6	0.6
H01	0 – 1.0	1.0
H02	0 – 1.6	1.6
H03	0 – 2.5	2.5
H04	0 – 4.0	4.0
H07	0 – 7.0	7.0
H10	0 – 10.0	10.0
H15	0 – 15.0	15.0
H30	0 – 25.0	25.0
H40	0 – 40.0	40.0
H60	0 – 60.0	60.0
H70	0 - 70.0	70.0
100	0 – 100.0	100.0
160	0 – 160.0	160.0
250	0 – 250.0	250.0
400	0 – 400.0	400.0
600	0 – 600.0	600.0

DIFFERENTIAL PRESSURE RANGES

Range Code	Range (bar ⁴)	Maximum Pressure (bar)
LP0	0 – 0.2	70
LP5	0 – 0.6	70
H01	0 – 1.0	70
H02	0 – 1.6	70
H03	0 – 2.5	70
H04	0 - 3.5	70
H07	0 – 7.0	70
H10	0 – 10.0	70
H15	0 – 15.0	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 pressure gauge.
4. Display units can be changed to Psi, Kg/Cm², Pa, KPa, MPa, mbar, mmWg and inWc.

HOW TO ORDER OGAUGE

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10	Group 11
N	OG	01	P1	H01	G	S01	02	XX	YY	ZZ
Reserved for non standard specification	Model	Version	Device type	Range Code	Measurement type	Material of sensor and process connection	Diaphragm material	Reserved for accessories	Reserved for certifications	Reserved for special instructions
	OG	01	P1 : Pressure D1 : Non planar D2 : Planar	Please select from range selection table (Refer page no. 4)	G - Gauge pressure A - Absolute pressure D - Differential pressure	S02 - SS316L & 1/2" NPTM S01 - SS316 & 1/2" BSPM S03 - SS316 and 1/4" BSPM	02 - SS316L			

e.g. A non planar O gauge having differential pressure range of 0-2.5 bar with SS316L sensor material and 1/2" NPTM process connection and SS316L as diaphragm material shall be specified by

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10	Group 11
<input type="checkbox"/>	OG	01	D1	H03	D	S02	02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

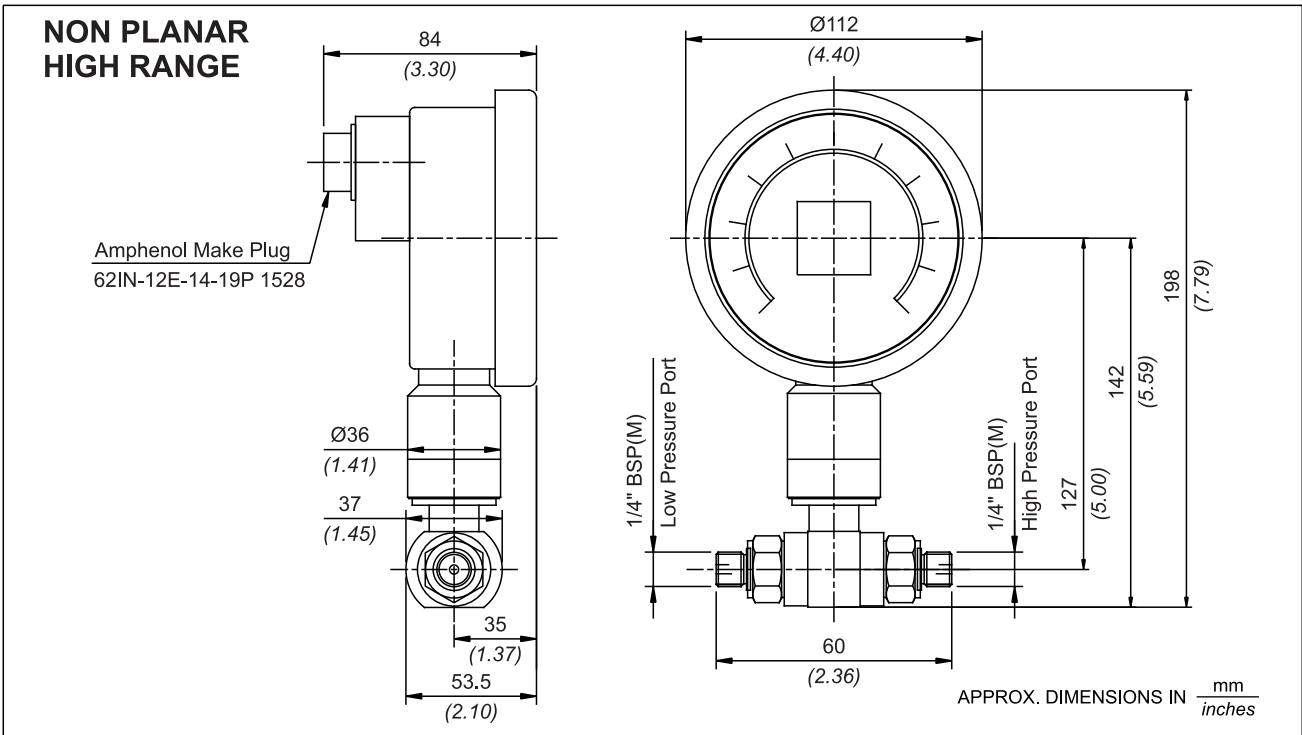
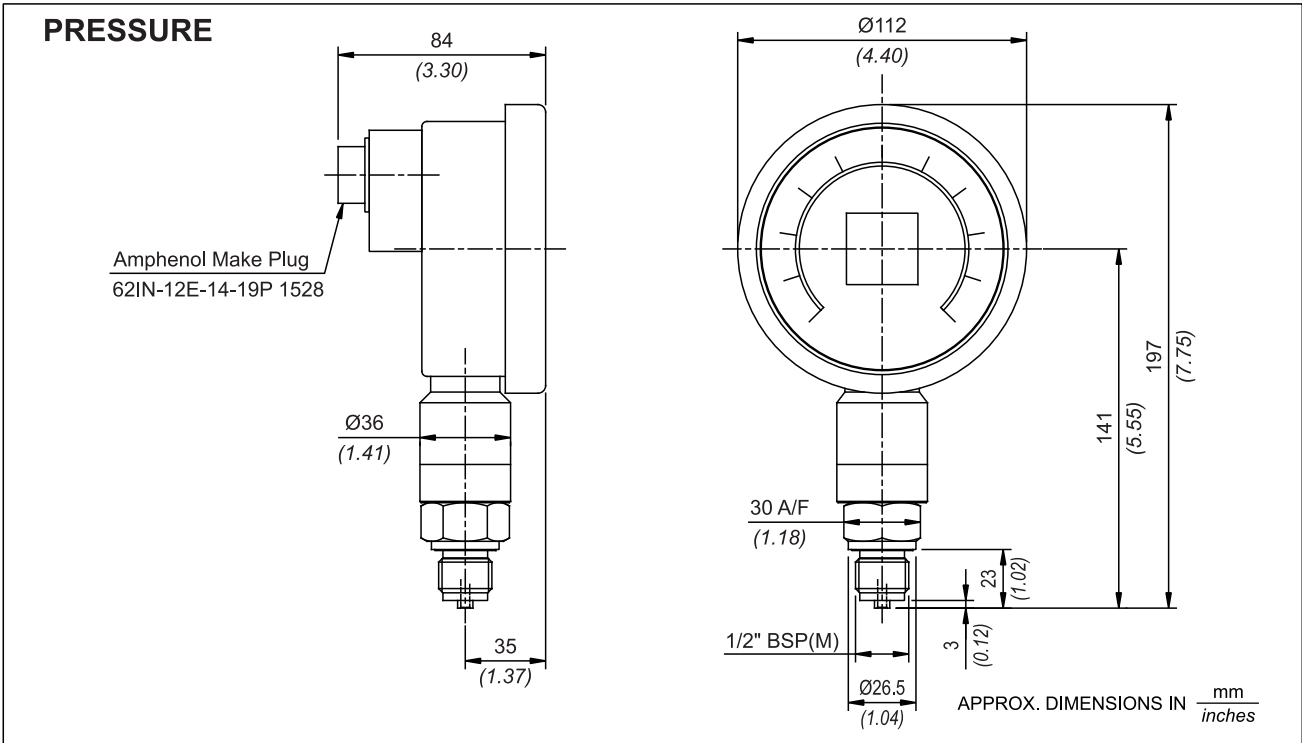
END CONNECTIONS (Group 7)

End connection	Available with Device type	Code		
1/2" BSPM	P1	S	0	1
1/2" NPTM	P1	S	0	2
1/4 " BSPM	D1	S	0	3
1/4" NPTM	D1	S	0	4
1/4" BSPF	D1	S	0	5
Triclover	P1	S	*	*
Planar type C	D2	C	0	0
Planar type S	D2	S	0	0

Note : Non standard process connection can be through adaptors.
Installation drawings of standard models provided. Please contact sales office for non standard sensor end connections.

* Please contact sales office.

INSTALLATION DRAWINGS



Note : As efforts are made constantly to improve both design and method of manufacture, the apparatus supplied may differ in detail from illustration and data printed. Please check the specifications while ordering



Certificate No.: **FM 72815**

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