

Pressure transmitter

Model 712, 704

WIKA data sheet PV35.52

Applications

- Hydraulics and pneumatics
- Pumps
- Compressors
- Special purpose machines

Special features

- Piezo resistive SS sensor
- 316SS wetted parts
- High accuracy
- LCD display

Description

Switzer Two wire pressure transmitter with digital indication utilises the latest thin film technology and high stability electronics to ensure exceptional performance.

The transmitter measures gauge pressure of liquids, gases and vapours. The process pressure is converted into standard 4–20 mA Analog DC signal, proportional to the input pressure.

High stability electronics with full temperature compensation ensures minimal drift with ambient and process temperature changes. It is also inbuilt with high contrast LCD to enable easy reading of pressure in the field.

The entire circuitry is housed in a cast aluminium enclosure IP66 complaint to weatherproof (or) flameproof requirement. Both version are suitable for direct / surface / wall / pipe mounting.



**Fig.Left: Pressure transmitter,
model 712 weatherproof version, with display**

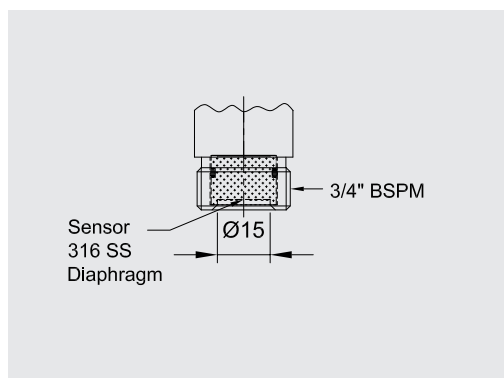
**Right: Pressure transmitter,
model 712 flameproof version, with display**

Specifications

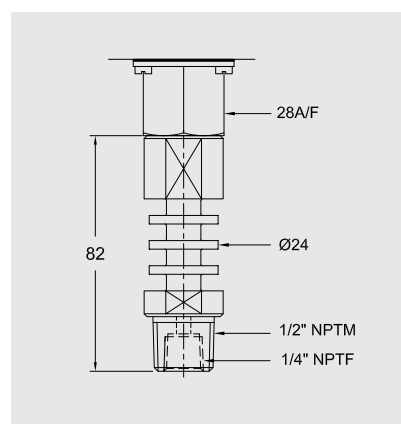
Basic information	
Switch enclosure	<ul style="list-style-type: none"> ■ W2: Aluminium pressure die cast weatherproof ■ F2: GR style aluminium pressure die cast, weatherproof and flameproof to group IIC as per IS/IEC 60079-1
Sensor element	
Type	Piezo resistive type
Wetted parts	Sensor housing and diaphragm with process connection <ul style="list-style-type: none"> ■ Standard: 316 SS with viton 'O' ring ■ Option: Hastalloy 'C' (on request)
Output signal	
Setting ranges (gauge pressure)	→ See table "Range"
Maximum working pressure	→ See table "Range"
Response time	<1 second
Accuracy	Inclusive of linearity, hysteresis and repeatability ± 0.25% FSR and ± 1 digit
Turn-down ratio	2:1
Display	<ul style="list-style-type: none"> ■ 712: With display indication - 3½ digit, 7 segment LCD ■ 704: Without display indication for weatherproof enclosure
Display character height	12.7 mm
Process value	1999 counts maximum
Decimal point	Factory set based on range
Display unit	→ See table "Range"
Analog output	Current: 4 to 20 mA
Load capacity	600 Ohms @ 24V DC supply
Electrical connection	
Power supply	12 ... 32V DC, two wire
Conduit type	<ul style="list-style-type: none"> ■ 4 pin DIN connector for weatherproof version ■ 1/2" NPT(F) per ASME B1.20.1 × 1 No. cable entry for flameproof version
Process connection	
Size	<ul style="list-style-type: none"> ■ Standard: 1/2" NPT(M) per ASME B1.20.1 and 1/4" NPT(F) per ASME B1.20.1 ■ Optional: 1/2" BSP(M) per ISO 7-1 and 1/4" BSP(F) per ISO 7-1 ■ 3/4" BSP(M) per ISO 7-1 for flush diaphragm sensor
Material	SS 316
Mounting	
Type	<ul style="list-style-type: none"> ■ Direct on line ■ Panel ■ Pipe-2" ■ Wall
Material	<ul style="list-style-type: none"> ■ Mild steel powder coated plate for wall mounting ■ Mild steel powder coated plate and U-bolts and nuts for pipe-2" mounting

Operating condition	
Process temperature limits	<ul style="list-style-type: none"> ■ Standards process connection <ul style="list-style-type: none"> – 0°C to 85°C without heatsink – Upto 125°C with heatsink ■ Flush mount process connection 0°C to 60°C (heat sink option not available)
Ambient temperature	0 ... 60°C
Ambient relative humidity	95%
Ingress protection	Weatherproof: IP 65 Flameproof: IP66

Flush diaphragm sensor process connection (code 'G')



Heat sink (code 'L')



Range table

Range code	Range (Gauge pressure)	Maximum working pressure	Unit
M023	200	400	mbar
M026	350	700	
M033	700	1400	
B004	1	2	bar
B006	2	4	
B008	3.5	7	
B011	10	20	
B012	20	40	
B013	35	70	
B016 §	100	150	
B017 §	200	300	
B018 §	350	500	
B019 §	400	600	

§ Not available in flush mount code 'G'.

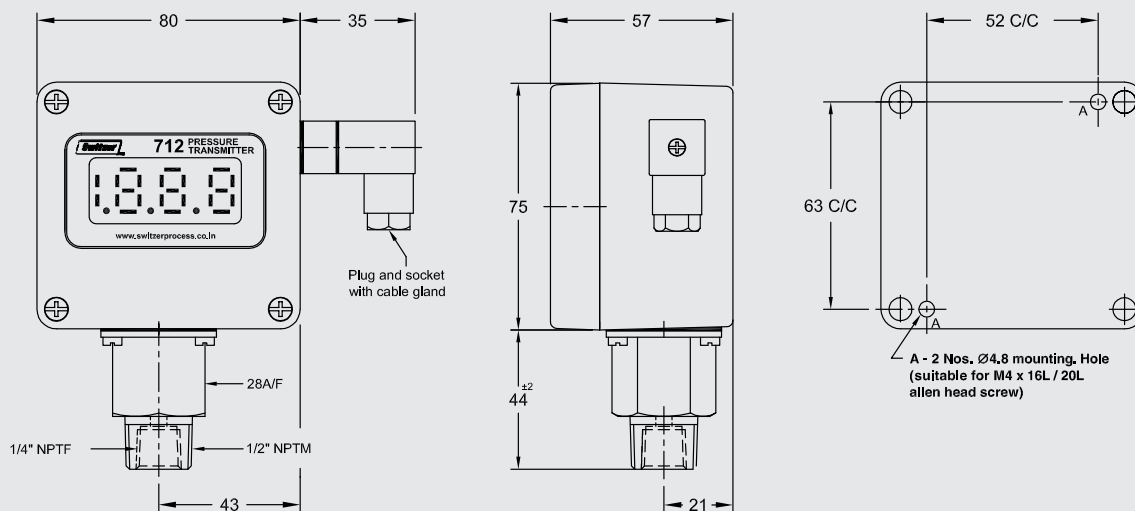
Ordering matrix

	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Model							
With display indication	712						
Without display indication for weatherproof enclosure	704						
Enclosure Protection							
Aluminium pressure die cast weatherproof to IP65	W2						
GR style aluminium pressure die cast, weatherproof and flameproof to Gr.IIC as per IS/IEC 60079-1	F2						
Wetted parts							
316 SS	2						
Hastelloy 'C'	H						
Range							
Select code from range table			<input type="checkbox"/>				
Process connection							
Standard: Without heatsink; 1/2" NPT(M) per ASME B1.20.1 and 1/4" NPT(F) per ASME B1.20.1; upto 85°C	F						
Optional: 1/2" BSP(M) per ISO 7-1 and 1/4" BSP(F) per ISO 7-1	S02						
Flush mount: Without heatsink; 3/4" BSP(M) per ISO 7-1 upto 60°C	G						
Customer to specify	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						
Process temperature							
Below 60°C without heat sink	I						
Below 85°C without Heat sink	N						
Above 85°C below 125°C with Heat sink, 316 SS	H						
Above 85°C below 125°C with Heat sink, Hastelloy C	C						
Mounting							
Panel / Direct on-line	Z						
Surface / Wall	W						
2" pipe	2						
Mounting material							
Not applicable	0						
Mild steel	C						
316 SS	2						

Dimensions in mm

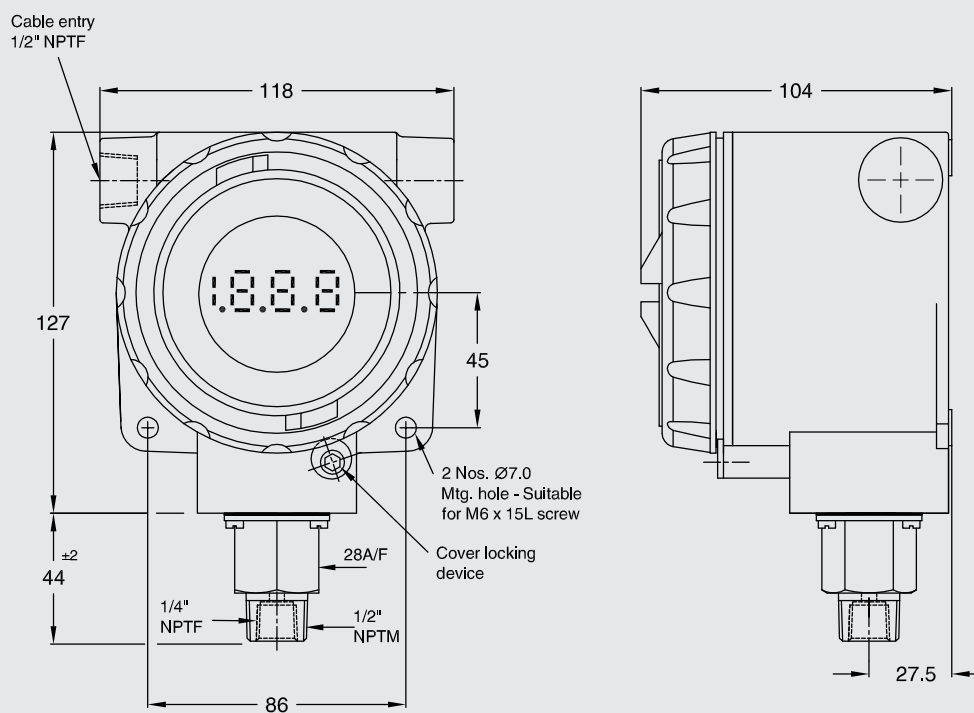
Direct on-line / panel mounting

Model W2, weatherproof



Note: Weatherproof only when all entries and joints are suitably sealed.

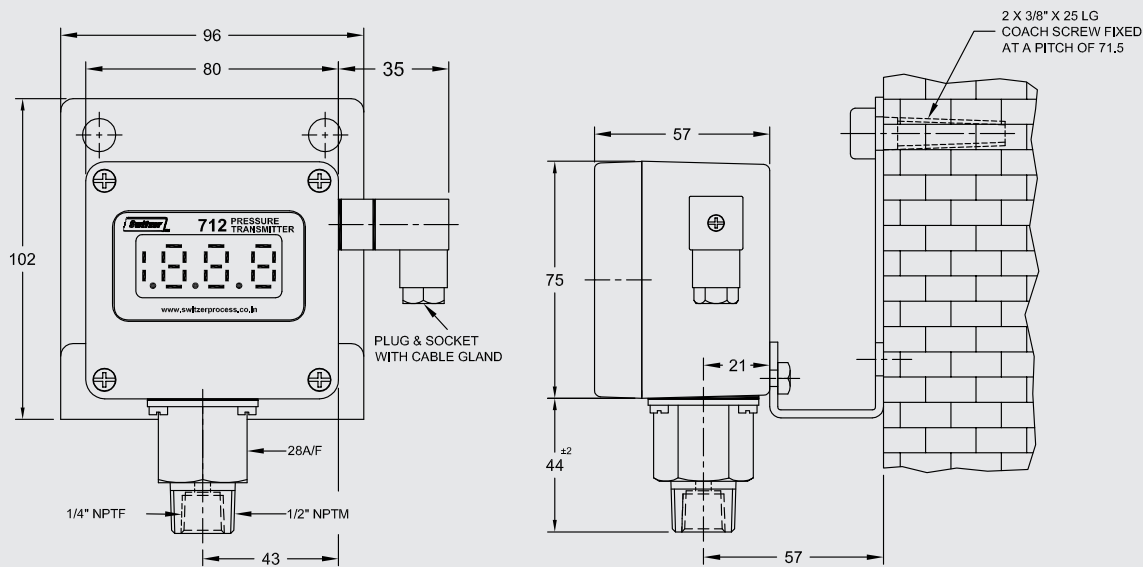
Model F2, flameproof



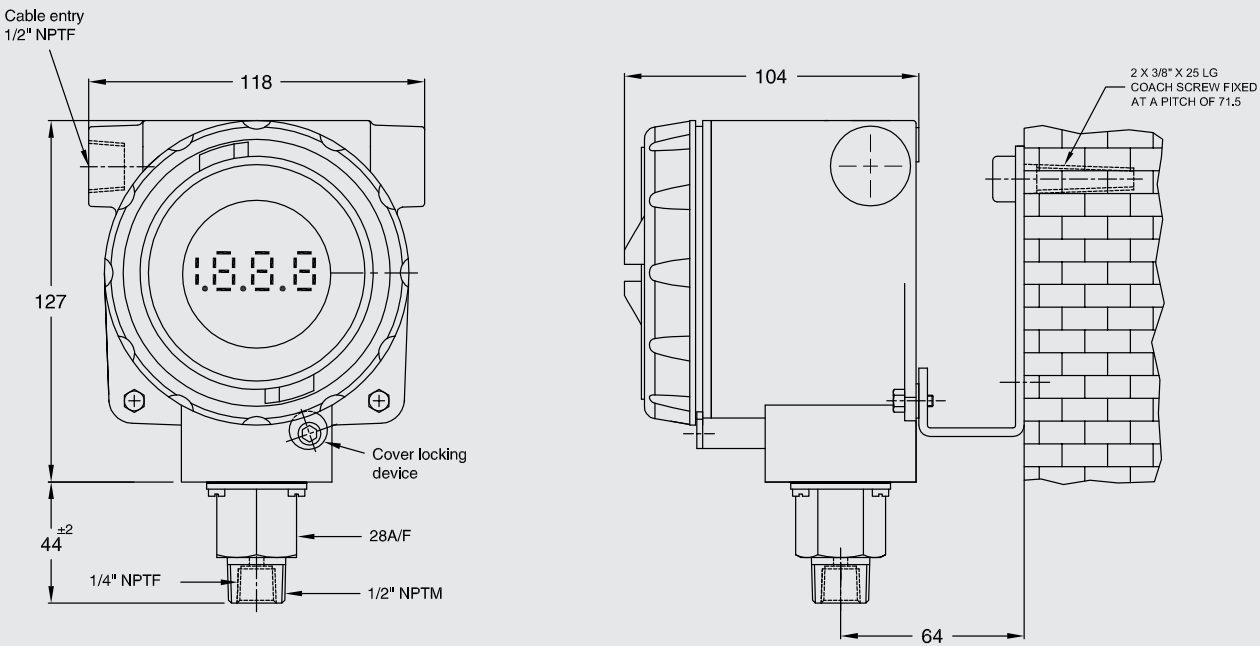
Dimensions in mm

Surface / wall mounting

Model W2, weatherproof



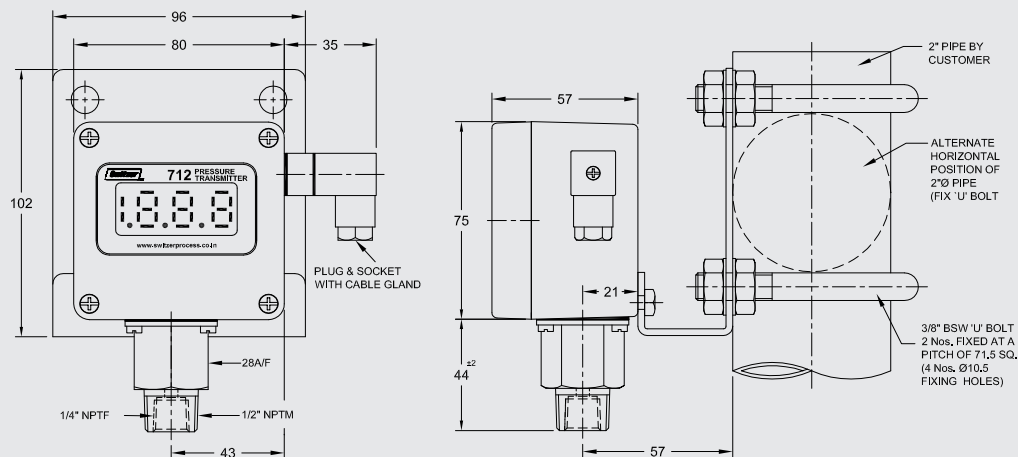
Model F2, flameproof



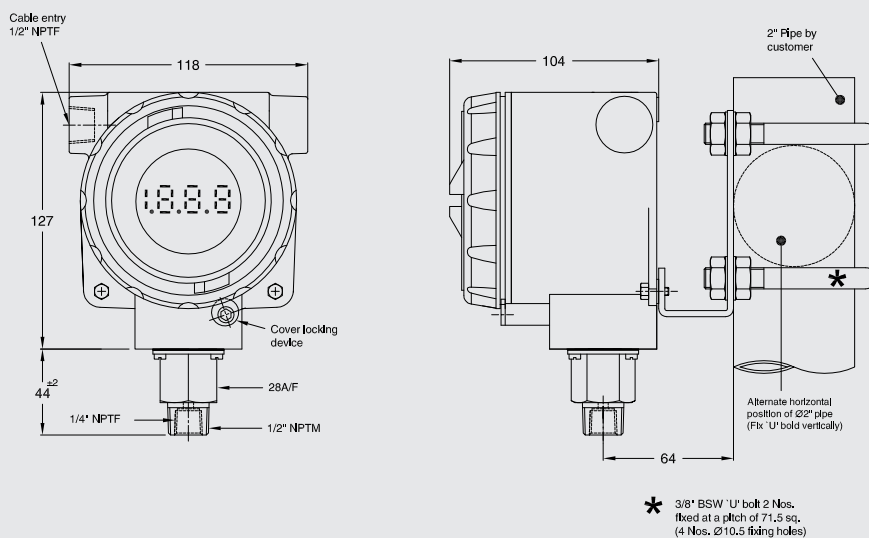
Dimensions in mm contd...

2" Pipe mounting

Model W2, weatherproof



Model F2, flameproof



Ordering information

Basic model number / Display / Enclosure protection / Wetted parts / Range / Process connection / Process temperature / Mounting / Mounting material

© 2022 WIKA Alexander Wiegand SE & Co. KG, all rights reserved.
The specifications given in this document represent the state of engineering at the time of publishing.
We reserve the right to make modifications to the specifications and materials.



WIKAI Instruments India Pvt. Ltd.
128 SIDCO North Phase
Ambattur Industrial Estate, Chennai 600 098
Tel. +91 44 2625 2017 / 2018 / 9840919318
switch.sales@wika.com
www.wika.co.in