



Application

- ✓ Industrial process control
- ✓ Oil fields and heavy industry
- ✓ Chemical plants and gas networks
- ✓ Water supply networks

Special Features

- ✓ High-performance diffused-silicon piezoresistive sensor
- ✓ Wide pressure range: -100 kPa to 100 MPa
- ✓ Optional digital display
- ✓ 4-20 mA, HART and RS485 output options

Description

The 3108 pressure transmitter incorporates a high-performance, high-stability OEM sensing core and dedicated signal processing to provide a standard output signal. Each unit is subjected to rigorous ageing and stability testing for reliable use in demanding industrial and outdoor environments. Local display and zero/span adjustment are available. Process connections can be selected or customised to suit the application. Typical uses include industrial process control, petrochemical processing, metallurgy, oil fields, gas pipelines and water-supply networks.

Specifications

Parameter	Specification
Accuracy	Class 0.2 or 0.5
Overload pressure	See pressure range selection
Zero / sensitivity thermal drift	± 3 %FS for ranges ≤ 35 kPa G (@0 to 60 °C); ± 1.5 %FS for ranges > 35 kPa G (@-10 to 70 °C)
Vibration	Sine: 20 g, 25 Hz-2 kHz (IEC 60068-2-6); Random: 7.5 grms, 5 Hz-1 kHz (IEC 60068-2-64)
Shock	100 g / 11 ms (IEC 60068-2-27); 1 m free fall (IEC 60068-2-32)
Insulation resistance	≥ 100 Mohm / 250 VDC
Power-on response	≤ 100 ms to 90 %FS
Long-term stability	± 0.2 %FS/year
EMC	Surge: 2 kV (IEC 61000-4-5); ESD: 8 kV contact / 15 kV air (IEC 61000-4-2)
Protection / materials	IP65; low-copper aluminium alloy housing; 316L diaphragm; 304 stainless steel pressure port

Output Signal

Output type	Terminal connection
4-20 mA / HART	+ : supply positive; - : supply negative / signal return
RS485	+24 VDC, 0 VDC, A (RS485+), B (RS485-)
Housing options	J1: 2088 housing without display; J2: 2088 housing with display

Note: HART is available with or without display. RS485 output is available with display only. Confirm the required option when ordering.

Connections

Connection code	Process connection
N2	NPT 1/2
B2	G1/2" (1/2" BSP)
M20	M20 x 1.5

Mechanical construction

Rugged 2088-style aluminium alloy housing with optional display, 316L isolation diaphragm and 304 stainless steel pressure port. Process connections are available in M20 x 1.5, G1/2 and NPT1/2.

Pressure Range Selection

Range code	Pressure type	Range	Overload	Burst
10kG	Gauge	0-10 kPa	300%FS	600%FS
20kG	Gauge	0-20 kPa	300%FS	600%FS
35kG	Gauge	0-35 kPa	300%FS	600%FS
70kG	Gauge	0-70 kPa	300%FS	600%FS
100kG	Gauge	0-100 kPa	200%FS	500%FS
160kG	Gauge	0-160 kPa	200%FS	500%FS
250kG	Gauge	0-250 kPa	200%FS	500%FS
400kG	Gauge	0-400 kPa	200%FS	500%FS
600kG	Gauge	0-600 kPa	200%FS	500%FS
1MG	Gauge	0-1 MPa	200%FS	500%FS
100kA	Absolute	0-100 kPa	200%FS	500%FS
160kA	Absolute	0-160 kPa	200%FS	500%FS
250kA	Absolute	0-250 kPa	200%FS	500%FS
400kA	Absolute	0-400 kPa	200%FS	500%FS
600kA	Absolute	0-600 kPa	200%FS	500%FS
1MA	Absolute	0-1 MPa	200%FS	500%FS
1.6MS	Sealed	0-1.6 MPa	200%FS	500%FS
2.5MS	Sealed	0-2.5 MPa	200%FS	500%FS
6MS	Sealed	0-6 MPa	200%FS	400%FS
10MS	Sealed	0-10 MPa	200%FS	400%FS
16MS	Sealed	0-16 MPa	200%FS	400%FS
25MS	Sealed	0-25 MPa	150%FS	400%FS
40MS	Sealed	0-40 MPa	150%FS	300%FS
60MS	Sealed	0-60 MPa	150%FS	-
100MS	Sealed	0-100 MPa	150%FS	-
-100G	Gauge	-100 to 0 kPa	200%FS	500%FS

G = gauge pressure; A = absolute pressure; S = sealed pressure.

Options

- ✓ Standard: white plastic cable gland and plug. Metal cable gland and plug are available as options.
- ✓ Specify HART protocol, RS485 communication and display requirements at time of order.

Installation

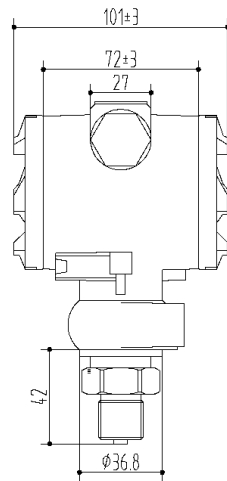
- ✓ Install the transmitter vertically at the process pressure port.
- ✓ For outdoor use, install in a ventilated, dry location and avoid direct sunlight and rain exposure.
- ✓ For lightning-prone locations, specify surge protection when ordering. Install external lightning protection and ensure reliable grounding.
- ✓ If output is absent or abnormal, verify wiring integrity, supply voltage and load resistance.

Safety Notes

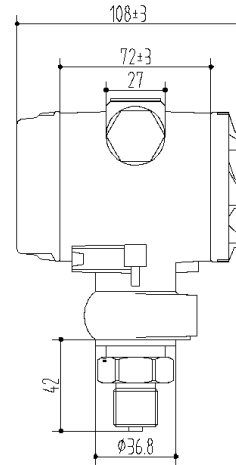
- ✓ Do not touch the isolation diaphragm with hard objects.
- ✓ Read the operating instructions and verify product information before installation.
- ✓ Follow the specified wiring diagram exactly; incorrect wiring can damage the transmitter.
- ✓ This datasheet is for product selection. Refer to the operating manual for complete installation, operation and maintenance instructions.

Dimensions

J1: 2088 Housing



J2: 2088 Housing with Display



All dimensions are in mm.

How To Order

Ordering code: 3108 - [Range code] [Output] [Connection] [Housing]

Field	Available options
Range code	Select from the Pressure Range Selection table.
Output	B1: 4-20 mA B2: 4-20 mA + HART B3: 4-20 mA + RS485
Connection	N2: NPT 1/2 B2: G1/2" (1/2" BSP) M20: M20 x 1.5
Housing	J1: 2088 housing without display J2: 2088 housing with display

Example: 3108-100kGB1M20J1 = 0-100 kPa gauge range, 4-20 mA output, M20 x 1.5 connection, 2088 housing without display.

Specify HART protocol, RS485 communication and display requirements at time of order.