

PRESSURE METERS • PRESSURE TRANSMITTERS

Pressure & Differential Pressure Transmitters

II-PT-001

Model ZT-2188-H • ZT-2188-G • ZT-3051DRG • ZT-3051DG • ZT-3051DP-SF

Monocrystalline silicon



Full specification, variants, open points and ordering information. Gauge, vacuum, high-temperature and differential pressure transmitters with LCD and 4–20 mA + HART.

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ISSUED

24 October 2026

Pressure & Differential Pressure Transmitters

Indiana catalogue ID **II-PT-001** Manufacturer model **ZT-2188-H · ZT-2188-G · ZT-3051DRG · ZT-3051DG · ZT-3051DP-SF** Pressure Meters · Pressure transmitters

IDENTIFICATION

Product	Pressure & Differential Pressure Transmitters
Indiana catalogue ID	II-PT-001
Manufacturer model	ZT-2188-H · ZT-2188-G · ZT-3051DRG · ZT-3051DG · ZT-3051DP-SF
Category	Pressure Meters · Pressure transmitters
Measuring principle	Monocrystalline silicon
Model line	IIT-2188-H · IIT-2188-G · IIT-3051DRG · IIT-3051DG · IIT-3051DP-SF
Document	Specification · issued 24 October 2026

01 Common to the range

Output	4–20 mA with HART, two-wire, as specified for each model
Power supply	24 V DC, as specified for each model
Display	LCD showing pressure, current and 0–100% proportional display
Communication	HART protocol using BELL202 FSK, 1200 Hz or 2000 Hz superimposed on the 4–20 mA signal
A/D conversion	18-bit
Configuration memory	EEPROM, non-volatile

02 Installation

Mounting	2-inch pipe, wall or instrument panel
Electronic compartment	Rotates 90° left and right after loosening the locking screw — do not rotate beyond 90°
DP process connection holes	1/4-18 NPT, requiring thread sealing
DP connection hole centre distance	54 mm standard; 50.8 mm, 54 mm or 57.2 mm by rotating the waist flange joint
Recommended cable	Explosion-proof cable gland, cable diameter 8–12 mm
Signal cable	Shielding not required but stranded wire is preferred; keep away from power cables and strong electrical equipment

Insulation testing	Do not use a high-voltage megohm meter — test voltage must not exceed 100 V
Output current limit	Intrinsically safe design, output limited to less than 24 mA DC

03 Keypad configuration

Keys	M — menu · S — set · Z — select / OK
Menu 2	Change the primary variable unit
Menu 3 / 4	Change the lower and upper range limits
Menu 5	Change damping
Menu 6	Zero the primary variable (shortcut: hold M + Z for 5 seconds)
Menu 8	Output characteristic — linear or square root
Menu 21	Liquid level density, in g/cm ³ , used when the primary variable unit is a height unit
Factory reset	Damping time set to 88.888, or value +5678.0 on the mainboard display
Menu timeout	Returns to measurement state after approximately 15 seconds with no key operation

04 Variants and model selection (10)

IIT-2188-H — IIT-2188 PRESSURE TRANSMITTER — 0 TO 200 KG/CM²

Gauge pressure on high-pressure service

Display	LCD
Output	4–20 mA + HART, two-wire
Power supply	24 V DC
Accuracy	0.2% F.S.
Measurement range	0–200 kg/cm ²
Maximum working pressure	500 kg/cm ²
Process connection	1/2" NPT female
Calibration	0–200 kg/cm ² corresponds to 4–20 mA output

IIT-2188-H — IIT-2188 PRESSURE TRANSMITTER — VACUUM, -1 TO 0 KG/CM²

Vacuum service

Display	LCD
Output	4-20 mA + HART, two-wire
Power supply	24 V DC
Accuracy	0.2% F.S.
Measurement range	-1 to 0 kg/cm ²
Process connection	1/2" NPT female
Electrical interfaces	2 electrical connection ports

IIT-2188-G — IIT-2188 HIGH-TEMPERATURE TRANSMITTER — 0 TO 5 KG/CM²

High-temperature service, low range

Display	LCD
Output	4-20 mA + HART, two-wire
Power supply	24 V DC
Accuracy	0.2% F.S.
Threaded connection	1/2" NPT female
Diaphragm material	Hastelloy C-276
Operating temperature	-40 to 85 °C
Measurement range	0 to 5 kg/cm ²
Maximum working pressure	25 kg/cm ²

IIT-2188-G — IIT-2188 HIGH-TEMPERATURE TRANSMITTER — -1 TO 3 KG/CM²

Compound range, high-temperature service

Display	LCD
Output	4-20 mA + HART, two-wire
Power supply	24 V DC
Accuracy	0.2% F.S.
Threaded connection	1/2" NPT female
Diaphragm material	Hastelloy C-276
Operating temperature	-40 to 85 °C
Measurement range	-1 to 3 kg/cm ²
Maximum working pressure	6 kg/cm ²

IIT-2188-G — IIT-2188 HIGH-TEMPERATURE TRANSMITTER — 0 TO 10 KG/CM²

High-temperature service, mid range

Display	LCD
Output	4–20 mA + HART, two-wire
Power supply	24 V DC
Accuracy	0.2% F.S.
Threaded connection	1/2" NPT female
Diaphragm material	Hastelloy C-276
Operating temperature	–40 to 85 °C
Measurement range	0 to 10 kg/cm ²
Maximum working pressure	16 MPa

IIT-3051DRG — MONOCRYSTALLINE SILICON DP TRANSMITTER — –100 TO 900 MMWC

Low differential pressure, draught and flow

Display	LCD
Output	4–20 mA + HART, two-wire
Power supply	24 V DC
Accuracy	0.075% F.S.
Differential pressure range	–100 to 900 mmWC
Static pressure rating	16 MPa
Wetted parts material	SS316
Diaphragm material	Hastelloy C-276
Clamp material	304 stainless steel
Electrical connection	1/2" NPT female
Mounting bracket	2-inch pipe mount bracket

IIT-3051DRG — MONOCRYSTALLINE SILICON DP TRANSMITTER — 0 TO 2,500 MMWC

Differential pressure and level

Display	LCD
Output	4–20 mA + HART, two-wire
Power supply	24 V DC
Accuracy	0.075% F.S.
Differential pressure range	0 to 2,500 mmWC
Static pressure rating	16 MPa
Wetted parts material	SS316
Diaphragm material	Hastelloy C-276
Clamp material	304 stainless steel
Electrical connection	1/2" NPT female
Mounting bracket	2-inch pipe mount bracket

IIT-3051DRG — MONOCRYSTALLINE SILICON DP TRANSMITTER — 0 TO 25,000 MMWC

High differential pressure

Display	LCD
Output	4–20 mA + HART, two-wire
Power supply	24 V DC
Accuracy	0.075% F.S.
Differential pressure range	0 to 25,000 mmWC
Static pressure rating	25 MPa maximum
Wetted parts material	SS316
Diaphragm material	Hastelloy C-276
Clamp material	304 stainless steel
Electrical connection	1/2" NPT female
Mounting bracket	2-inch pipe mount bracket

IIT-3051DG — MONOCRYSTALLINE SILICON DP TRANSMITTER — -40 TO +40 KPA, AIR SERVICE

Air differential pressure with IP66 housing

Display	LCD
Output signal	4-20 mA + HART
Power supply	24 V DC
Accuracy	0.1% F.S.
Measurement range	-40 to +40 kPa
Allowable static pressure	At least 3 bar
Wetted parts material	316L stainless steel
Bolts and nuts	316L stainless steel
Clamp material	304 stainless steel
Medium	Air
Medium temperature	20-90 °C
Mounting orientation	High-pressure side on the left
Electrical connection	Dual M20 × 1.5 female threads
Ingress protection	IP66

IIT-3051DP-SF — DUAL-FLANGE DP TRANSMITTER WITH REMOTE SEALS

Liquid level in closed or pressurised vessels — liquid ammonia service

Display	LCD
Output signal	4–20 mA + HART
Power supply	24 V DC
Accuracy	±0.25% F.S.
Flange size	2 inch
Flange rating	ASME Class 300#
Flange material	SS304
Diaphragm material	SS316L
Seal configuration	Remote diaphragm flange seals
Capillary length	2 m
Process fluid	NH ₃ (liquid ammonia)
Process fluid density	0.65 kg/L (approximately 650 kg/m ³)
Operating temperature	–11 °C
Operating pressure	1.85 kg/cm ²
Design temperature	–5 °C
Design pressure	25 kg/cm ²
Measuring / calibration height	813 mm
Tag number (as supplied)	12LC232

05 Installation

- 01 Place the transmitter horizontally before adjusting, and adjust to zero after it is installed on site.
- 02 Install and secure the process connection before the transmitter is pressurised.
- 03 Install in a dry environment, not exposed to rain. In harsh environments use the transmitter protection box.
- 04 Connect the external ground screw reliably to earth. Do not remove the cover when energised in an explosive or flammable environment.
- 05 Keep impulse piping short, prevent cross deposition, and balance the liquid column head on both sides of a differential pressure transmitter.
- 06 Install where temperature gradient and fluctuation are small, away from strong vibration, shock and electromagnetic interference.

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7. 07 For liquid flow, open the pressure tapping on the side of the process pipe and mount the transmitter beside or below it. For gas, tap at the top or side and mount beside or above. For steam, tap on the side and mount below the tapping so the impulse line fills with condensate.
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8. 08 Remote-seal installations: keep capillaries as short as possible and equal in length, keep the flange, capillary and transmitter body out of direct sunlight and rain, and re-zero seasonally.
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06 Applications and industries

APPLICATIONS

- Gauge and vacuum pressure monitoring on plant headers
- Steam and air pressure measurement
- Differential pressure across filters, draught systems and orifice plates
- Flow measurement using differential pressure
- Liquid level in open and closed vessels
- Liquid ammonia level in pressurised vessels using remote diaphragm seals

INDUSTRIES

Power generation

Petrochemical

Metallurgy

Food and pharmaceutical

Paper

Textile

07 Views



PRIMARY VIEW Gauge pressure transmitter and differential pressure transmitter with LCD housings
Product photograph



ALTERNATE VIEW Differential pressure transmitter with remote diaphragm seals and capillaries
Product photograph



ALTERNATE VIEW Gauge pressure transmitter with LCD housing and threaded process connection
Product photograph



ALTERNATE VIEW Gauge and differential pressure transmitters
Product photograph



APPLICATION Stainless-steel process skid with a field transmitter, pumps and sanitary pipework — illustrative environment, not an installation of this product
Illustrative scene

08 Ordering

Quote reference	II-PT-001 · model ZT-2188-H · ZT-2188-G · ZT-3051DRG · ZT-3051DG · ZT-3051DP-SF
Model / variant options	IIT-2188-H · IIT-2188-G · IIT-3051DRG · IIT-3051DG · IIT-3051DP-SF
Lead time, terms, documentation	Confirmed in the quotation

TO PREPARE A QUOTATION WE NEED

- Measured variable — gauge, absolute, vacuum or differential pressure
- Calibrated range and engineering unit
- Maximum working and static pressure
- Process medium and its temperature
- Ambient operating temperature
- Process connection and thread standard
- Wetted parts and diaphragm material
- Output and communication — 4–20 mA, HART
- Display and mounting bracket requirement
- Hazardous-area certification required

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QUOTATION

List the product, ID and quantity; add process conditions. We reply with a quotation.

CONFIRM BEFORE ORDERING

- The source quotation gives both “thread / diaphragm material: 316L” and “diaphragm material: Hastelloy C-276” for IIT-2188-G. Confirm the exact wetted-part and diaphragm construction before approval.
- For IIT-3051DRG, verify the required calibrated range and maximum static pressure for the specific application before purchase.
- Specifications are transcribed from the supplier quotation dated 13 October 2026. Confirm final configuration before ordering.

INDIANA INSTRUTECH · Pressure & Differential Pressure Transmitters — technical product catalogue · Monocrystalline silicon pressure / differential pressure — installation and operating manual · IIT-3051DG monocrystalline silicon differential pressure transmitter · IIT-3051DP-SF dual-flange differential pressure transmitter Values are reproduced from the source documentation as stated there; where a source gives two different values for the same property, both are shown with their source. Unstated values are listed under “Open points”. This document is not a certificate, and no approval, certification or hazardous-area suitability is implied. INDIANA SALES (INDIANA INSTRUTECH) · info@indianainstrutech.com · +91 75033 02545 · +91 92893 62447 · issued 24 October 2026.