


TRONIC Digest for pressure and temperature transmitters



 Part of your business
Pressure and Temperature Measurement

Standard Industrial

These rugged pressure transmitters are designed for use in harsh environments where accuracy, reliability, and repeatability are critical. Applications include hydraulics and pneumatics and numerous other processing operations.

Ranges:

50 InWC to 15,000 psi, vacuum, compound, absolute

Output:

4-20 mA 2-wire, 0-5 V 3-wire, 0-10 V 3-wire

Accuracy:

≤0.25% B.F.S.L.



S-10

Flush Diaphragm

The S-11 flat diaphragm pressure transmitter is designed for applications with sludge, slurry, or high viscosity media.

Ranges:

50 InWC to 8,000 psi, vacuum, compound, absolute

Output:

4-20 mA, 0-5 V, 0-10 V

Accuracy:

≤0.25% B.F.S.L.



S-11

Field Case

The Type F-20 and F-21 pressure transmitters feature an integral stainless steel junction box for installation in harsh environments. The F-21 non-clogging flush diaphragm version is designed to measure media containing sludge, slurry, or particulates.

Ranges:

30"-0 HgVac to 15,000 psi

Output:

4-20 mA, 0-5 V, 0-10 V

Accuracy:

≤0.25% B.F.S.L.



F-20/F-21

UniTrans

The UniTrans has a turndown capability of up to 20:1, a 0.15% accuracy and an integral temperature sensor. An intrinsically safe version is also available with a HART® communications interface.

Ranges:

5 psi to 15,000 psi

Output:

4-20 mA

Accuracy:

≤0.15% B.F.S.L. (pre-turndown)



UT-10

IUT-10 intrinsically safe version available

Explosion Proof

The E series transmitters are FM approved explosion proof for Class I, Division I locations.

Ranges:

5 psi to 15,000 psi, vacuum, compound, absolute

Output:

4-20 mA or 1-5V low power

Accuracy:

≤0.25% B.F.S.L.



E-10



E-11

Non-Incendive

Type N-10/N-11 pressure transmitters are specifically designed for gas compressor systems. These transmitters are engineered to meet Class I, Division 2 non-incendive protection in hazardous environments.

Ranges:

50 InWC to 15,000 psi, vacuum, compound, absolute

Output:

4-20 mA or 1-5V low power

Accuracy:

≤0.25% B.F.S.L.



N-10



N-11

Intrinsically Safe

Wika's intrinsically safe transmitters are FM, ATEX, and CSA approved. They are designed for installation in Class I, Division 1 hazardous locations. The IS-21 features a flat, non-clogging diaphragm designed to measure media containing sludge, slurry, or particulates. The IS-20-F has an all stainless steel integral junction box for installation in harsh environments.

Ranges:

50 InWC to 15,000 psi, vacuum, compound, absolute

Output:

4-20 mA

Accuracy:

≤0.25% B.F.S.L.



IS-20



IS-20-F

IS-21

OEM

The WIKA A-10 pressure transmitter is precision engineered and manufactured to fit many industrial and OEM applications. The rugged design provides resistance to vibration, shock, wide temperature variations, RFI and other extreme environmental conditions that are typical of industrial and OEM applications.

Ranges:

15 psi to 10,000 psi

Output:

4-20 mA, 0 - 10 V, 0 - 5 V, others

Accuracy:

≤ (+/-) 0.5% B.F.S.L.



A-10



OEM Mobile Hydraulic Transducers

The MH-2 and OT-1 OEM pressure transmitters incorporate WIKA proprietary thin film sensors for exceptional performance, reliability, and extended operating life. They offer an excellent price/performance ratio for OEM applications requiring a large production quantity of transmitters. Custom designs are available for specific OEM requirements. Minimum order quantities apply.

Ranges

100 psi to 8,000 psi

Outputs

4-20 mA, 1-5 V, 0-10 V, 0.5-4.5 -4.5 V ratiometric @ 5 V

Accuracy:

≤0.5% B.F.S.L.



MH-2, OT-1

OEM

Featuring a highly stable, temperature compensated, and conditioned output signal, the WIKA C-10 is specifically designed to meet OEM requirements. Applications include hydraulics, pneumatics, compressor control, off-road equipment, and industrial engine control.

Ranges:

100 InWC to 15,000 psi

Output:

4-20 mA , 0-5 V, 0-10 V

Accuracy:

≤0.5% B.F.S.L.



C-10



Refrigeration and Air Conditioning

The R-1 and AC-1 pressure transmitters are specifically designed for refrigeration and air conditioning pressure monitoring applications. The R-1 features stainless steel construction and a completely welded measuring cell. The economical AC-1 features a brass case and ceramic sensing element. Both provide condensation-proof construction for long service life.

Ranges:

100psi - 850 psi, compound

Outputs:

4-20 mA, 0-10 V, 0.5 - 4.5 V ratiometric

Accuracy:

<1% B.F.S.L



R-1



AC-1

Mobile Hydraulic

The WIKA Type MH-1 is engineered to meet the demanding requirements of off-road applications. Extreme shock, vibration, and pressure spike resistance are combined with environmental protection up to IP 69K, making the MH-1 ideal for conditions encountered in most mobile hydraulic applications.

Ranges:

1,000 psi to 8,000 psi

Output:

4-20 mA, 1-5 V

Accuracy:

≤0.5% B.F.S.L.



MH-1



OEM Sensor

The WIKA OEM-designed pressure transducer incorporates the most recent advances in thin film technology. This transducer is designed for engineers who want to provide their own power supply and signal conditioning circuitry.

Ranges:

25 bar to 1,000 bar

Output:

2 mV per V

Accuracy:

up to +0.06% of span



TTF-1

Submersible Level

Submersible level transmitters have a watertight construction suitable for applications in tank level measurement, water/waste-water treatment, and reservoir or well depth measurement. They are submersible up to 1,000 feet.

Ranges:

50 InWC to 400 psi

Output:

4-20 mA, 2-wire

Accuracy:

≤0.25% - 0.125% B.F.S.L.



LS-10

LH-10

LevelGuard™ Anti-Clog Attachment For Level Transmitters

The LevelGuard™ is compatible with the LS-10, LH-10, and IL-10 submersible liquid level transmitters. It is designed for use in wet wells, lift stations, and other applications where sludge, slurry, or turbulence may be present.



LevelGuard™

Intrinsically Safe

WIKA IL-10 intrinsically safe submersible liquid level transmitters are engineered for a wide variety of industrial and municipal liquid level measurement applications installed in hazardous areas. Each transmitter undergoes extensive quality control testing and calibration to achieve an accuracy ≤ 0.125% full scale.

Ranges:

50 InWC to 400 psi

Output:

4-20 mA, 2-wire

Accuracy:

≤0.125% B.F.S.L.



IL-10

3A Sanitary

S-10-3A pressure transmitters meet 3A sanitary criteria for pressure and level measurement in the food, pharmaceutical, cosmetic, and beverage industries. They feature 0.25% accuracy, rugged stainless steel construction, and a wide operating temperature range.

Ranges:

15 psi to 1000 psi vacuum, compound

Output:

4-20 mA, 0-5 V, 0-10 V

Accuracy:

≤ 0.25% B.F.S.L.



S-10-3A

3A Sanitary

WIKA SA-11 pressure transmitters meet 3A and EHEDG sanitary criteria for pressure and level measurement in the food, pharmaceutical, cosmetic, and beverage industries. They feature 0.25% accuracy, rugged stainless steel construction, and a wide operating temperature range to 300°F.

Ranges:

100 InWC to 100 psi, vacuum, compound, absolute

Output:

4-20 mA, 0-5 V

Accuracy:

≤ 0.25% B.F.S.L.



SA-11

3A Sanitary

WIKA F-20-3A pressure transmitters are in compliance with "3A" third party criteria for pressure and level measurement in all sanitary applications. The process wetted surfaces of 316L stainless steel are electropolished to reduce cleaning time. This transmitter features 0.25% output linearity (B.F.S.L.) over a wide operating temperature range.

Ranges:

100 inWC to 200 psi vacuum, compound, absolute

Outputs:

4-20 mA, 2-wire

Accuracy:

0.25% B.F.S.L.



F-20-3A

shown with 3/4" connection

High Pressure

The new HP-2 is designed for ultra-high pressure monitoring and control applications up to 225,000 psi. It provides accurate, reliable and safe performance when exposed to rapid pressure changes.

Ranges:

40,000 psi to 225,000 psi

Output:

4-20 mA, 0-5 V, 0-10 V

Accuracy:

≤0.25% B.F.S.L



HP-2



PROFIBUS DP-Interface

The PROFIBUS DP (EN 50170) interface compatible pressure transmitters enable rapid data transmission rates of up to 12 Mbit for automation and test bench applications. Accuracy of 0.1% is standard. The transmitter features built-in diagnostic routines as well as no temperature error between 0° and 122°F.

Ranges:

5 psi to 15,000 psi

Output:

Profibus DP (EN 50170)

Accuracy:

≤0.1% B.F.S.L.



D-10-7

D-11-7



Low Pressure Differential

The WIKA DP-10 pressure transmitter is designed for the measurement of extremely low gauge and differential pressures of clean, dry, inert gaseous media. The transmitter uses a linear variable differential transformer (LVDT sensor) for exceptional sensitivity and performance at extremely low pressures.

Ranges:

0.2 InWC- 200 InWC

Output:

4-20 mA, 0-5 V

Accuracy:

≤1.0% of span



DP-10



CAN Interface

This very compact CAN Interface series is based on the thin film and piezo sensors. Due to their specially adapted specifications in combination with CAN Interface, these pressure transmitters are the perfect instruments for applications in the mobile hydraulics sector, machine construction and automation systems industry. Contact factory for details.



CAN Interface



High Precision Digital

WIKA high precision pressure transmitters have no additional temperature error between 0 and 122°F. They are suitable for applications in the laboratory as well as harsh industrial environments.

Ranges:

30"-0 HgVac to 15,000 psi

Output:

4-20 mA

Accuracy:

≤0.05% B.F.S.L.



P-10



CANopen

The D-20-9 is a precision transmitter with CANopen interface. Due to shock and vibration resistance values which comply with the industrial standards, it is ideal for fieldbus applications in mechanical engineering, automation and test benches.

Ranges:

5 psi to 22,000 psi

Output:

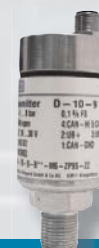
CAN (DIN / ISO 11898)

Accuracy:

±≤0.25% B.F.S.L.



D-20-9



Digital

The D-10 transmitters with accuracies of 0.1% (or 0.05%) have been designed to enable direct communication to a PC, which is especially required in the field of test, calibration and service technology. The pressure transmitter's power supply is taken directly from the RS 232-interface of the PC.

Ranges:

30"-0 HgVac to 15,000 psi

Output:

4-20 mA

Accuracy:

≤0.25% B.F.S.L.



D-10



Ultra High Purity

Ultra High Purity (UHP) transmitters are specifically designed for ultra pure media applications in semiconductor, flat panel display, and micro-electronic industries. They feature electro-polished Elgiloy sensor assemblies and replaceable circuit boards, and have long-term stability.

Please consult factory for technical specifications, ranges and available configurations.



WU-10



WU-15



WU-16

Micro-Tronic

With a case length (including hex) of just 1.7" and a diameter of .75", the Micro-Tronic is one of the smallest industrial pressure transmitters available for embedded OEM applications. The Micro-Tronic is CE approved.

Ranges:

500 psi to 15,000 psi

Output:

4-20 mA, 0-5 V, 0.1 -10V

Accuracy:

0.25% B.F.S.L.



M-10

Panel Mount Digital Indicator

The DI-15 features a .40" red LED display and compact size for installation in tight spaces. User-adjustable digital filtering improves readability during rapid pressure changes.

Display:

4 digit, .40" red LED

Power:

9-28 VDC

Accuracy:

±0.5% of span ± 1 digit



DI-15

Pressure Transmitter with Integral LED Display and Switch Options

The PSD-30 features an integral red LED display that provides three-way adjustability for a wide variety of installation requirements. It is available with PNP or NPN solid state switches for intelligent control applications and meets VDMA standards for ease of programming.

Ranges:

Vacuum, compound, and gauge ranges up to 8000 psi

Display:

Red 4 digit LED, .35" high, 14 segments

Switch Points:

Solid state user programmable, NPN or PNP, single or dual



PSD-30

Digital Pressure Gauge

The DG-10 digital display features a durable stainless steel housing and integral battery power supply, making it suitable for a wide range of applications and industries and is ideal for precise and fast pressure readings.

Display:

DG-10-S: 4 digit, 7 segment LCD
DG-10-E: 4½ digit, 7 segment LCD (2nd display)

Power:

2x 1.5 V Type AA batteries

Process Connection:

¼" NPT male



DG-10

Attachable Loop Powered Indicator

The A-AI-1 is designed for use with the 4-pin DIN 43650 "L" plug supplied with Tronic Industrial and A-10 4-20 mA output pressure transmitters. User-adjustable digital filtering stabilizes the display during rapid pressure changes.

Display:

-1999 to +9999 user-programmable

Output:

4-20 mA

Power:

loop powered with 3 VDC drop

Application:

for use with TRONIC industrial (S-10, S-11) and ECO-1 pressure transmitters with DIN plug



A-AI-1

A-10 transmitter not included

Analog

Analog transmitters offer an economical solution to most transmitter applications. A choice of inputs are available for 100 Ohm Platinum RTD or any one of eight thermocouple types. The T-19 has user selectable ranges and potentiometers for adjustment.

Inputs:

RTD: platinum 100 Ohm, alpha 0.00385
 thermocouple: J, K, N, T, E, R, S, B

Accuracy:

±0.1% of measurement range



T-19

Digital

Digital transmitters feature the flexibility of input and range programming combined with high accuracy. The input is programmable for 100 Ohm Platinum RTD or any one of 11 thermocouple types. The 4-20 mA output is isolated and linearized to the temperature input. The T-32 has HART® protocol for programming and communications.

Inputs:

RTD: platinum 100 Ohm, alpha 0.00385
 thermocouple: 11 types;
 millivolt: 800 mVdc; resistance: 5K Ohm

Accuracy:

RTD: (per DIN IEC 770, 23°C, ±5°C) ±0.2°C
 thermocouple: (per DIN IEC 770, 23°C, ±5°C)
 Types J, K, T, E, N, L, U: ±1.0°C - Types R, S, B, W5: ±2.0°C

Isolation:

1500 VAC

Dimensions:

1.95" dia. (49.5mm), 1.12" ht. (28.5mm)



T-12



T-32



Analog

The configurable flexibility of a Windows PC. The T-24 is suited for applications in the machine industry and plant construction.

Inputs:

RTD: platinum 100 Ohm

Basic configuration:

3 wire 0 ... 150°C



T-24

Fieldbus & PROFIBUS™ PA

T-53 has PROFIBUS PA and foundation capabilities and is compatible with RTDs, thermocouples, resistance sensors, and millivolt sensors. The T-53 is also intrinsically safe and CE approved.

Inputs:

RTD: platinum or nickel, 100 Ohm
 thermocouple: 10 types; millivolt:
 -800 to 800mV
 resistance: 0 to 10K Ohm

Accuracy:

RTD: (per DIN IEC 700, 23°C, ±5°C) ±0.8°C
 thermocouple: (per DIN IEC 700, 23°C, ±5°C)
 Types J, K, T, E, N, L, U: ±1.0°C;
 Types R, S, B: 2.0°C

Isolation:

1500 VAC

Dimensions:

1.95" dia. (49.5mm), 1.12" ht. (28.5mm)



T-53



DIN Rail

These transmitters have all the features of the complete head mounted transmitter in a convenient DIN rail package. Typically mounted in electrical enclosures, the DIN rail transmitters provide signal conditioning for PLC and data acquisition applications.



T-12.30



TE-19.30



T-32.30



For over 60 years, WIKAI Instrument Corporation (WIKAI) has continued to globally advance pressure gauge, sensor and temperature instrumentation technology and applications. In the United States, WIKAI's operation utilizes state-of-the-art manufacturing technology and highly automated proprietary production equipment in its nearly quarter-million-square-foot facility in the metro Atlanta suburb of Lawrenceville, Georgia.



LS-10 with Levelguard™

As the industry leader in lean manufacturing, WIKAI offers a wide variety of stock and customized instrumentation solutions for critical applications that are often distributed within days. The WIKAI customer service department recently earned the Operational Excellence Award for Leadership from one of North America's leading distributors of industrial maintenance, repair and operation replacement parts. Producing over 40 million gauges, diaphragm seals, transmitters, and thermometers worldwide annually, WIKAI has the most extensive product line in the industry.



A-10

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