INSTRUMENTATION

ATTA SERIES

altus

CONTROL AND INSTRUMENTATION

ATTA SERIES

ACCURACY AND RELIABILITY FOR CONTROL AND INSTRUMENTATION WITH TECHNOLOGY HART®

- With a wide variety of HART® instruments for monitoring variables and valve positioning, the Atta Series has essential products for your instrumentation demands.

CONTROL AND INSTRUMENTATION

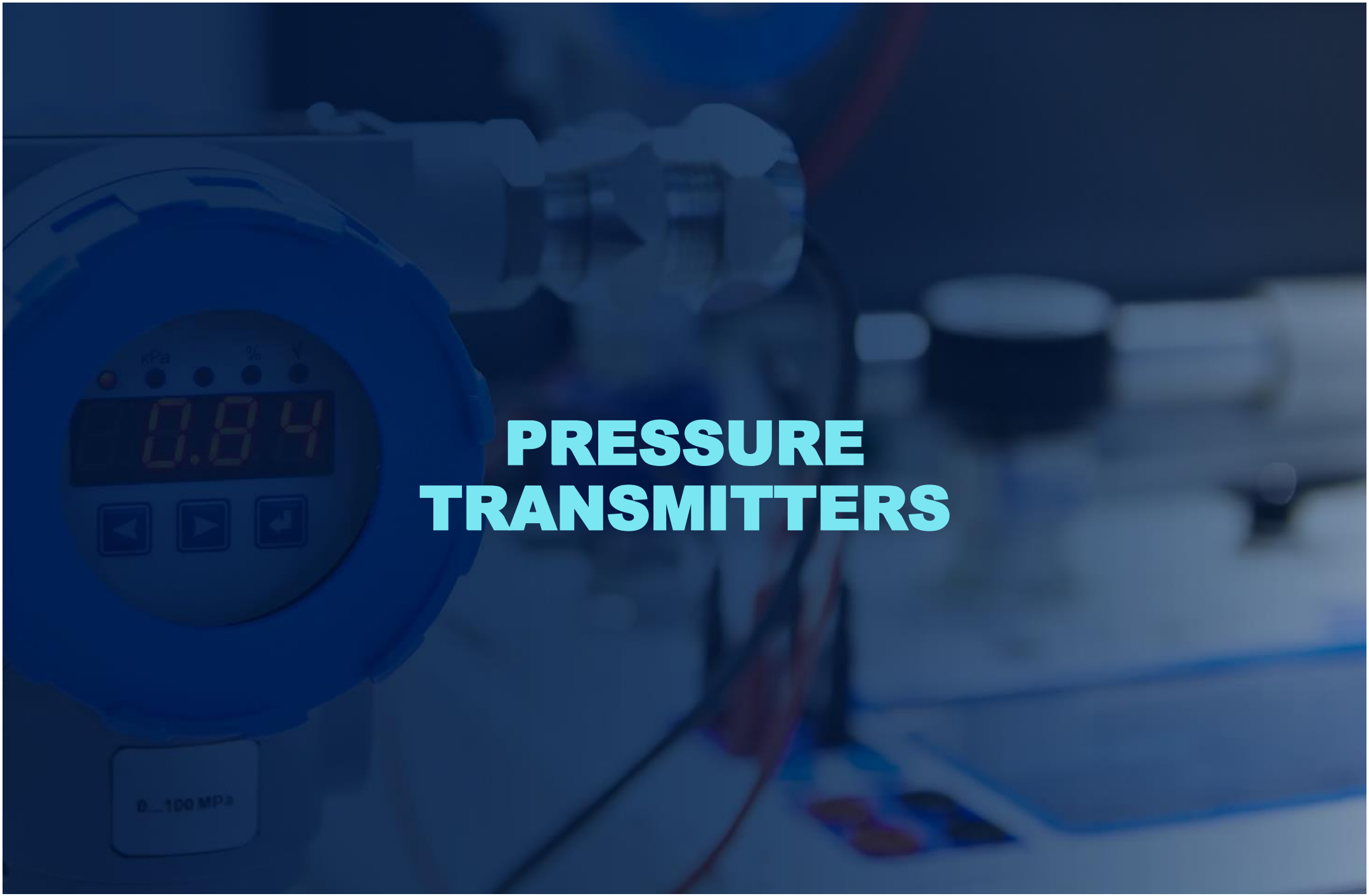
ATTA SERIES

- Accuracy, reliability, and robustness to increase the efficiency of your processes, make your operation safer, and reduce production costs.
- EDDL and FDT/DTM - based tools for configuring, calibrating, monitoring, and verifying diagnostics of all assets in your plant.
- IP67.
- Local configuration by magnetic key.

CONTROL AND INSTRUMENTATION

ATTA SERIES

- Get to know the equipment in the family and find the ideal solution to increase the precision and level of control in your business:
  - Pressure transmitters;
  - Temperature transmitters;
  - Analog position transmitter for valves;
  - Valve positioners;
  - Specific software and accessories for the demands of field instrumentation.


PRESSURE
TRANSMITTERS

PRESSURE TRANSMITTER

ATTA SERIES

APT 10

Pressure transmitter for bracket mounting and manifold connection.

APT 11

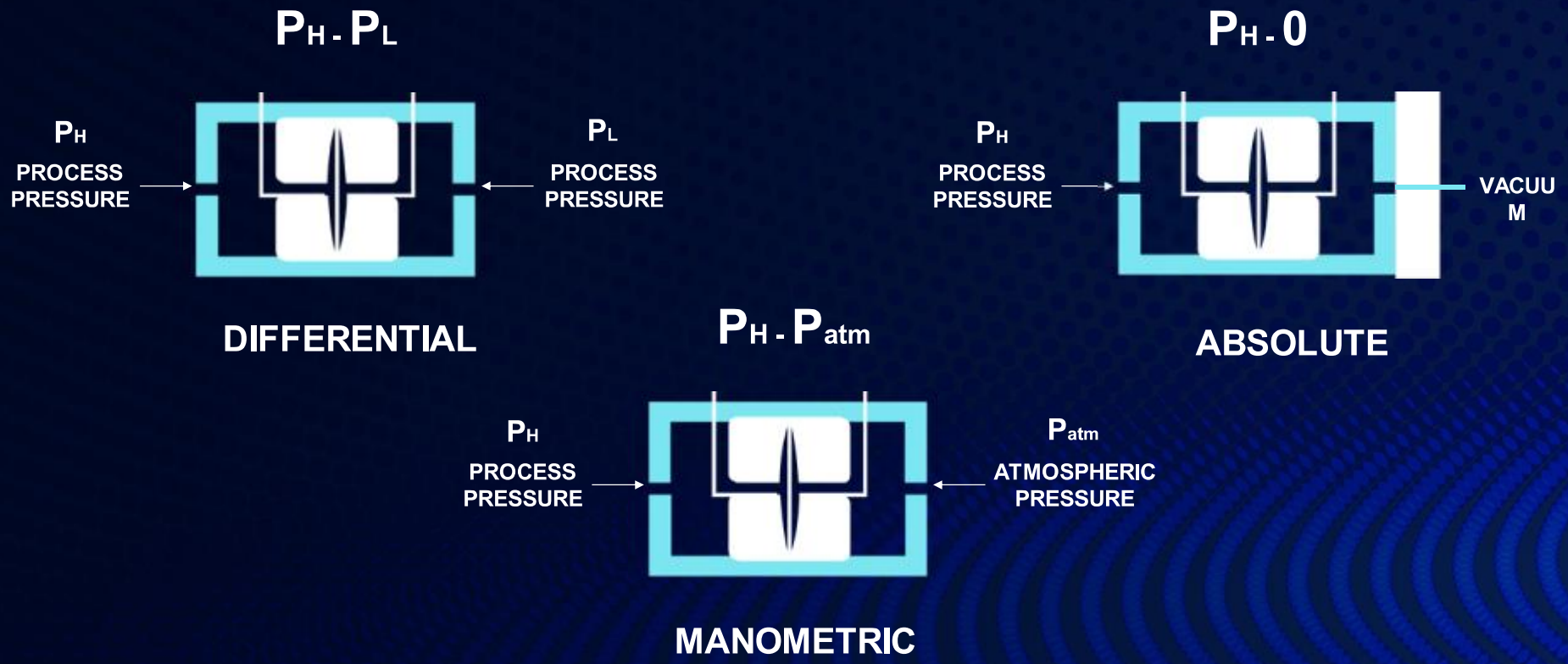
Pressure transmitter for direct mounting.

ADL 10

Pressure transmitter with electronic seal.

PRESSURE TRANSMITTER

ATTA SERIES



PRESSURE TRANSMITTER

ATTA SERIES

MAIN FEATURES

FEATURES	APT 10	APT 11	ADL 10
2-wire connection, 4-20mA + HART 7	✓	✓	✓
Capacitive cell	✓	-	✓
Piezo resistive cell	-	✓	-
Differential pressure	✓	-	✓
Gauge pressure	✓	✓	✓
Absolute Pressure	✓	✓	✓
5-digit multifunctional LCD rotating display with bargraph	✓	✓	✓

PRESSURE TRANSMITTER

ATTA SERIES

MAIN FEATURES

FEATURES	APT 10	APT 11	ADL 10
Certificate for Ex-d and EX-ia classified area	✓	✓	✓
Electrical connection ½' 14 NPT	✓	✓	✓
Microprocessor sensors with onboard pressure and temperature compensation	✓	✓	✓
Internal transient arrester	✓	✓	✓
Totalizing with percistence	✓	✓	✓
Power supply without polarity - 12 to 45 Vdc	✓	✓	✓

PRESSURE TRANSMITTER

ATTA SERIES

APT10

- Fully Digital Capacitive Pressure Transmitter;
- Designed for differential, gauge, and absolute pressure measurements;
- Flanged level, remote seal, sanitary, and flow measurement;
- Configuration uses HART 7 communication protocol.

PRESSURE TRANSMITTER – APT10

ATTA SERIES

FEATURESS

- Measuring ranges:
  - Range 1: -7,5 to 7,5 kPa (-765 to 765 mmH_2O)
  - Range 2: -37 to 37 kPa (-3814 to 3814 mmH_2O)
  - Range 3: -147,1 to 147,1 kPa (-1,5 to 1,5 kgf/cm^2)
  - Range 4: -690 to 690 kPa (-7 to 7 kgf/cm^2)
  - Range 5: -2.608 to 2.068 kPa (-21 to 21 kgf/cm^2)
  - Range 6: -6.890 to 6.890 kPa(-70,2 to 70,2 kgf/cm^2)
  - Range 7: -0,1 to 20,68 MPa (-1 to 210,9 kgf/cm^2)
- Accuracy:
  - Basic (± 0.075% of the calibrated span)
  - High Performance (± 0.05% of the calibrated span)
- Rangeability:
  - Max (200:1)

PRESSURE TRANSMITTER – APT10

ATTA SERIES

- Static pressure and overpressure limit:
  - Rang 1: 8MPa (81,6 kgf/cm^2)
  - Rang 2 a 6: 16MPa (163,1 kgf/cm^2)
  - Rang 7: 40MPa (407,9 kgf/cm^2)
  - For high performance model (31,2 Mpa)
- Stability in measurement:
  - Standard (± 0.2% URL for 5 years)
  - High Performance (± 0.2% URL for 15 years)
- Response Time: 50ms

PRESSURE TRANSMITTER

ATTA SERIES

APT11

- Digital Piezoresistive Silicon Pressure Transmitter;
- Designed for gauge, absolute and level pressure measurements;
- Configuration uses the HART 7 communication protocol.

PRESSURE TRANSMITTER – APT11

ATTA SERIES

ADVANTAGE

- Higher sensitivity
- Higher linearity
- Low hysteresis in pressure and temperature
- Increased reliability in silicon nitride passivation
- Faster response
- High load cycle stability as a result of no fatigue
- Compact
- Lower cost
- Immune to mechanical oscillation
- Suitable for low and high pressures
- Excellent stability and repeatability
- Excellent accuracy
- Short response time

PRESSURE TRANSMITTER – APT11

ATTA SERIES

FEATURE

- Measuring ranges:
  - Range 1: -6 to 6 kPa (-611,8 to 611,8 mmH_2O)
  - Range 2: -40 to 40 kPa (-4078,9 to 4078,9 mmH_2O)
  - Range 3: -100 to 250 kPa (-1 to 2,5 kgf/cm^2)
  - Range 4: -0,1 to 3 MPa (-1 to 30,6 kgf/cm^2)
  - Range 5: -01 to 10 MPa (-1 to 102 kgf/cm^2)
  - Range 6: -01 to 40 MPa (-1 to 407,9 kgf/cm^2)
- Accuracy:
  - Basic (± 0.075% of the calibrated span)
  - High Performance (± 0.05% of the calibrated span)
- Rangeability:
  - Max (100:1)

PRESSURE TRANSMITTER – APT11

ATTA SERIES

- Overpressure limit:
  - Range 1: 0,3 MPa
  - Range 2: 1 MPa
  - Range 3: 4 MPa
  - Range 4: 15 MPa
  - Range 5: 20MPa
  - Range a 6: 60MPa

- Stability in measurement:
  - Standard (± 0.2% URL for 5 years)
  - High Performance (± 0.2% URL for 15 years)

- Response Time: 50ms

PRESSURE TRANSMITTER

ATTA SERIES

ADL10

- Pressure transmitter with electronic seal;
- Developed for differential pressure, level, flow and density measurements with HART technology;
- Two intelligent, microprocessor-based capacitive sensors, connected by an electronic seal;
- Integrated pressure and temperature compensations.

PRESSURE TRANSMITTER – ADL10

ATTA SERIES

FEATURES

- Measuring ranges:
  - Range 1: -7,5 to 7,5 kPa (-765 to 765 mmH2O)
  - Range 2: -37,4 to 37,4 kPa (-3814 to 3814 mmH2O)
  - Range 3: -147,1 to 147,1kPa (-1,5 to 1,5 kgf/cm2)
  - Range 4: -690 to 690 kPa (-7 to 7 kgf/cm2)
  - Range 5: -2068 to 2068 kPa (-21 to 21 kgf/cm2)
- Accuracy:
  - Basic (± 0.075% of the calibrated span)
- Rangeability:
  - Max (200:1)

PRESSURE TRANSMITTER – ADL10

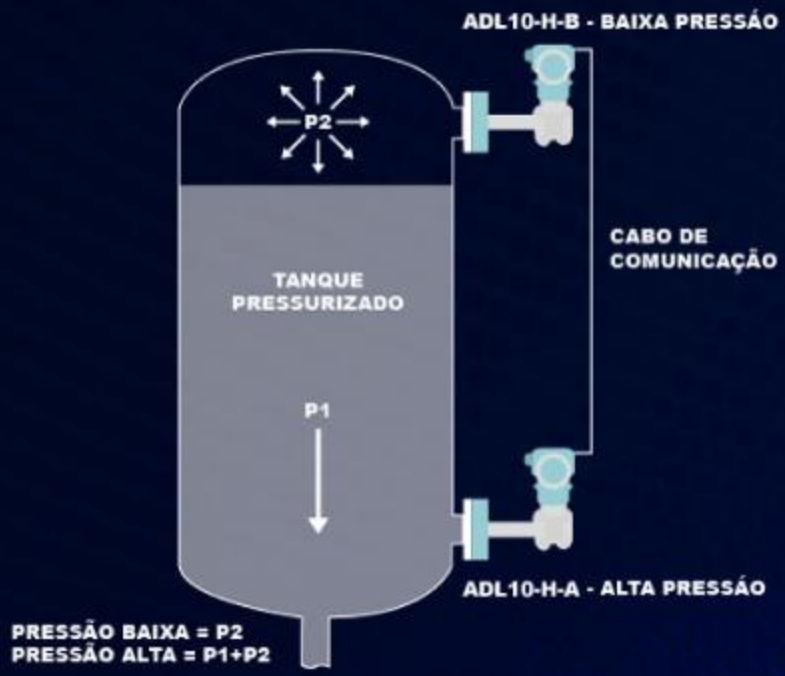
ATTA SERIES

- Overpressure limit:
  - Range 1: 8 MPa (81,6 kgf/cm²)
  - Range 2 to 5: 16 MPa (163,1 kgf/cm²)
- Stability in measurement:
  - Standard (± 0.2% URL for 5 years)
- Response Time: 100ms

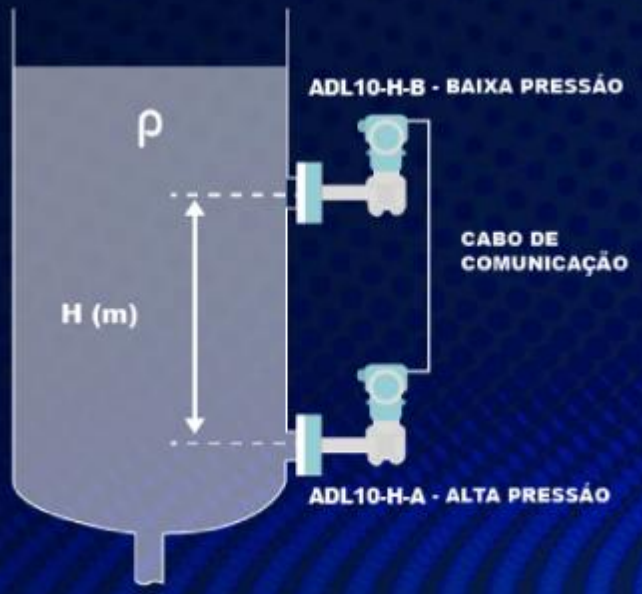
PRESSURE TRANSMITTER – ADL10

ATTA SERIES

- Example of using ADL10 transmitters for level measurement



Level measurement in pressurized tank

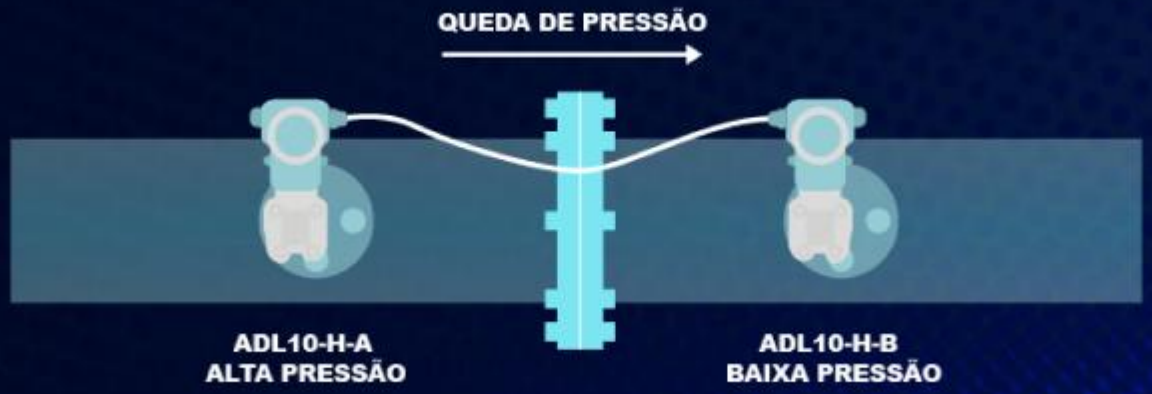


Density measurement

PRESSURE TRANSMITTER – ADL10

ATTA SERIES

- Example of using ADL10 transmitters for flow measurement



Flow measurement or differential pressure


TEMPERATURE
TRANSMITTERS

TEMPERATURE TRANSMITTERS

ATTA SERIES

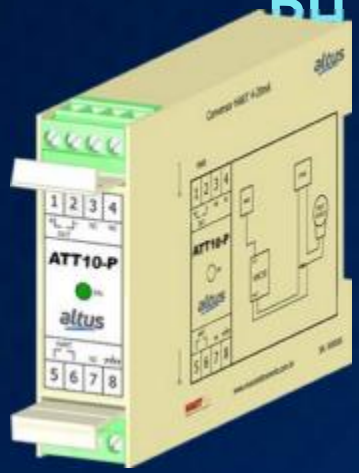
ATT 10-FH

Temperature transmitter for bracket mounting and housing for area installation.

ATT 10-HH

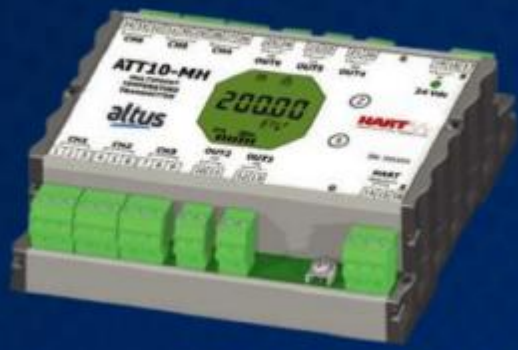
Temperature transmitter for installation in existing enclosure.

ATT 10-PH



Temperature transmitter for panel installation.

ATT 10-MH



Temperature transmitter with up to 6 channels and panel installation.

TEMPERATURE TRANSMITTERS

ATTA SERIES

MAIN FEATURES

FEATURES	ATT 10F	ATT 10H	ATT 10P	ATT 10M
2-wire connection 4-20mA + HART 7	✓	✓	✓	✓
2, 3 and 4 wire RTD input connection	✓	✓	✓	✓
2, 3 and 4 wire resistive input connection	✓	✓	✓	✓
2, 3 and 4 wire Thermocouple input connection	✓	✓	✓	✓
2, 3 and 4 wire mV input connection	✓	✓	✓	✓
Multifunctional 5-digit rotary LCD display with bargraph	✓	-	-	✓
Power supply without polarity - 12 to 45 Vdc	✓	✓	✓	✓
Isolated 4 to 20 mA signal repeater	✓	✓	✓	✓
Dual sensor for backup	✓	✓	✓	✓

TEMPERATURE TRANSMITTERS

ATTA SERIES

COMPATIBLE SENSORS

SENSOR OPTION	REFERENCE	ENTRY BAND (°C)	MINIMUM SPAN (°C)	PRECISION (°C)
Pt100 (α=0,00385)	IEC751	-200 to 850	10	0,10
Pt200 (α=0,00385)	IEC751	-200 to 850	10	0,50
Pt500 (α=0,00385)	IEC751	-200 to 850	10	0,20
Pt1000 (α=0,00385)	IEC751	I-200 to 300	10	0,20
Pt100 (α=0,003916)	JIS1604	-200 to 645	10	0,15
Pt200 (α=0,003916)	JIS1604	-200 to 645	10	0,70
Ni120	Edson Curve #7	-70 to 300	10	0,08
Cu10	Edson Copper Widing #15	-50 to 250	10	1,00
Pt50 (α=0,00391)	GOST 6651-94	-200 to 850	10	0,20
Pt100 (α=0,00385)	GOST 6651-94	-200 to 850	10	0,12
Pt200 (α=0,00385)	GOST 6651-94	-50 to 200	10	0,34
Pt500 (α=0,00385)	GOST 6651-94	-185 to 200	10	0,34
Pt1000 (α=0,00385)	GOST 6651-94	-50 to 200	10	0,17
Pt100 (α=0,003916)	GOST 6651-94	-185 to 200	10	0,17

TEMPERATURE TRANSMITTERS

ATTA SERIES

COMPATIBLE SENSORS

SENSOR OPTION	REFERENCE	ENTRY BAND (°C)	MINIMUM SPAN (°C)	PRECISION (°C)
Termopar B	IEC584	100 to 1820	25	0,75
Termopar E	IEC584	-50 to 1000	25	0,20
Termopar J	IEC584	-180 to 760	25	0,25
Termopar K	IEC584	-180 to 1372	25	0,25
Termopar N	IEC584	-200 to 1300	25	0,40
Termopar R	IEC584	0 to 1768	25	0,60
Termopar S	IEC584	0 to 1768	25	0,50
Termopar T	IEC584	-200 to 450	25	1,00
Termopar L	DIN43710	-200 to 900	25	0,35
Termopar U	DIN43710	-200 to 600	25	0,35
Termopar W3	ASTM E988-96	0 to 2000	25	0,70
Termopar W5	ASTM E988-96	0 to 2000	25	0,70
Termopar L	GOST R 8 585	-200 to 800	25	0,45

TEMPERATURE TRANSMITTERS

ATTA SERIES

RESISTANCE TABLE AND mV

SENSOR OPTION	ENTRY RANGE	PRECISION
Input Mv	-10mV to 100mV	0,015mV
Input Ohm	0 ohm to 2000 ohm	0,45 ohm

TEMPERATURE TRANSMITTERS

ATTA SERIES

ATT10F

- Temperature transmitter designed for field installation, directly on the sensor or with a Ø 2” tube support.

- Suitable for different types of sensors:
  - Thermocouples
  - RTDs;
  - Signs of resistance (hom)
  - Millivoltage (mV)

TEMPERATURE TRANSMITTERS – ATT10F

ATTA SERIES

FEATURES

- Reading circuit with 24-bit AD converter and CallendarVan Dusen;

- Using a HART configurator or Android, EDDL or FDT/DTM tools it is possible to configure the sensor type, measurement scales, work units and calibration, as well as monitor the measurement variables and check the status of the equipment;

TEMPERATURE TRANSMITTERS

ATTA SERIES

ATT10H

- Temperature transmitter designed for installation on form B DIN head;
- Suitable for different types of sensors:
  - Thermocouples;
  - RTDs;
  - Signs of resistance (hom);
  - Millivoltage (mV).

TEMPERATURE TRANSMITTERS – ATT10H

ATTA SERIES

FEATURES

- Reading circuit with 24-bit AD converter and CallendarVan Dusen;

- Using a HART configurator or Android, EDDL or FDT/DTM tools it is possible to configure the sensor type, measurement scales, work units and calibration, as well as monitor the measurement variables and check the status of the equipment;

TEMPERATURE TRANSMITTERS

ATTA SERIES

ATT10-P

- Temperature transmitters designed for DIN-rail panel or field installation.

- Serves different types of sensors:
  - Thermocouples;
  - RTDs;
  - Signs of resistance (hom);
  - Millivoltage (mV);

TEMPERATURE TRANSMITTERS – ATT10-P

ATTA SERIES

FEATURES

- It receives a 4 to 20 mA signal and retransmits it and is therefore also an isolated repeater;
- Reading circuit with 24-bit AD converter and CallendarVan Dusen;
- It has ambient temperature measurement, backup, and several alerts for measurement limits and sensor status.

TEMPERATURE TRANSMITTERS – ATT10-P

ATTA SERIES

- Uses HART 7 communication protocol
- Using a HART configurator or Android, EDDL or FDT/DTM tools it is possible to configure the sensor type, measurement scales, work units and calibration, as well as monitor the measurement variables and check the status of the equipment;

TEMPERATURE TRANSMITTERS

ATTA SERIES

ATT10-MH

- Temperature transmitters designed for DIN-rail panel or field installation.

- Serves different types of sensors:
  - Thermocouples;
  - RTDs;
  - Signs of resistance (hom);
  - Millivoltage (mV);

TEMPERATURE TRANSMITTERS – ATT10-MH

ATTA SERIES

FEATURES

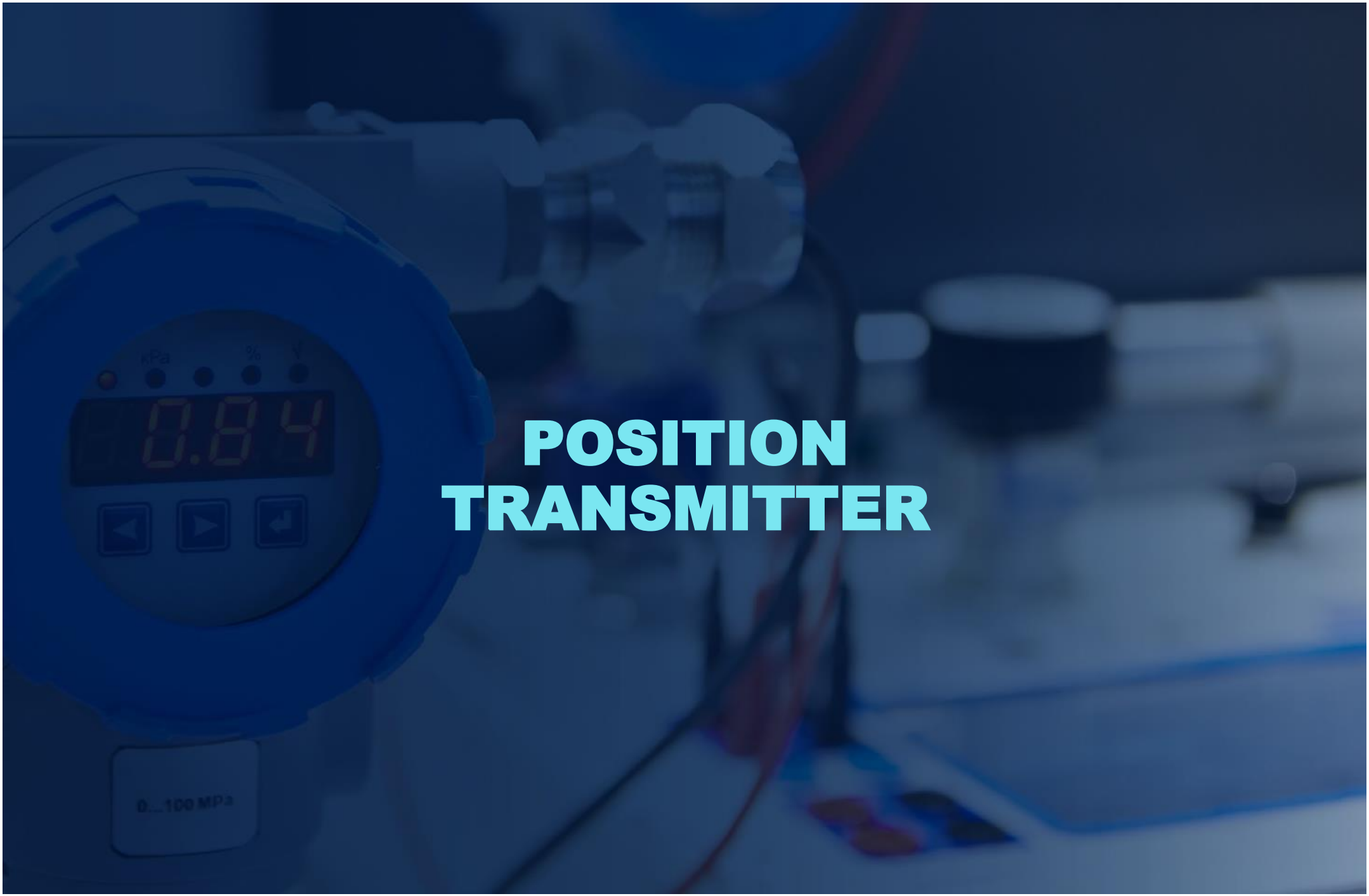
- Receive 4 to 20 mA signal and retransmit it, thus also being an isolated repeater.
- The equipment also has a reading circuit with 24-bit AD converter and CallendarVan Dusen.
- It has ambient temperature measurement, sensor averaging and backup function, as well as various alerts for measurement limits and sensor status.

TEMPERATURE TRANSMITTERS – ATT10-MH

ATTA SERIES

FEATURES

- Uses HART 7 communication protocol;
- Using a HART configurator or Android, EDDL or FDT/DTM tools it is possible to configure the sensor type, measurement scales, work units and calibration, as well as monitor the measurement variables and check the status of the equipment.


POSITION
TRANSMITTER

POSITION TRANSMITTER

ATTA SERIES

ATP10

Position transmitter with Hart7 protocol, for mounting on a stand.

Designed to monitor linear or rotary displacement systems such as actuators for valves.

Its main function is to calculate the correct positioning of the installed system according to the settings and calibrations performed by the user, exporting this measurement via digital communication and by analog signal 4 to 20 mA.

POSITION TRANSMITTER – ATP10

ATTA SERIES

FEATURES

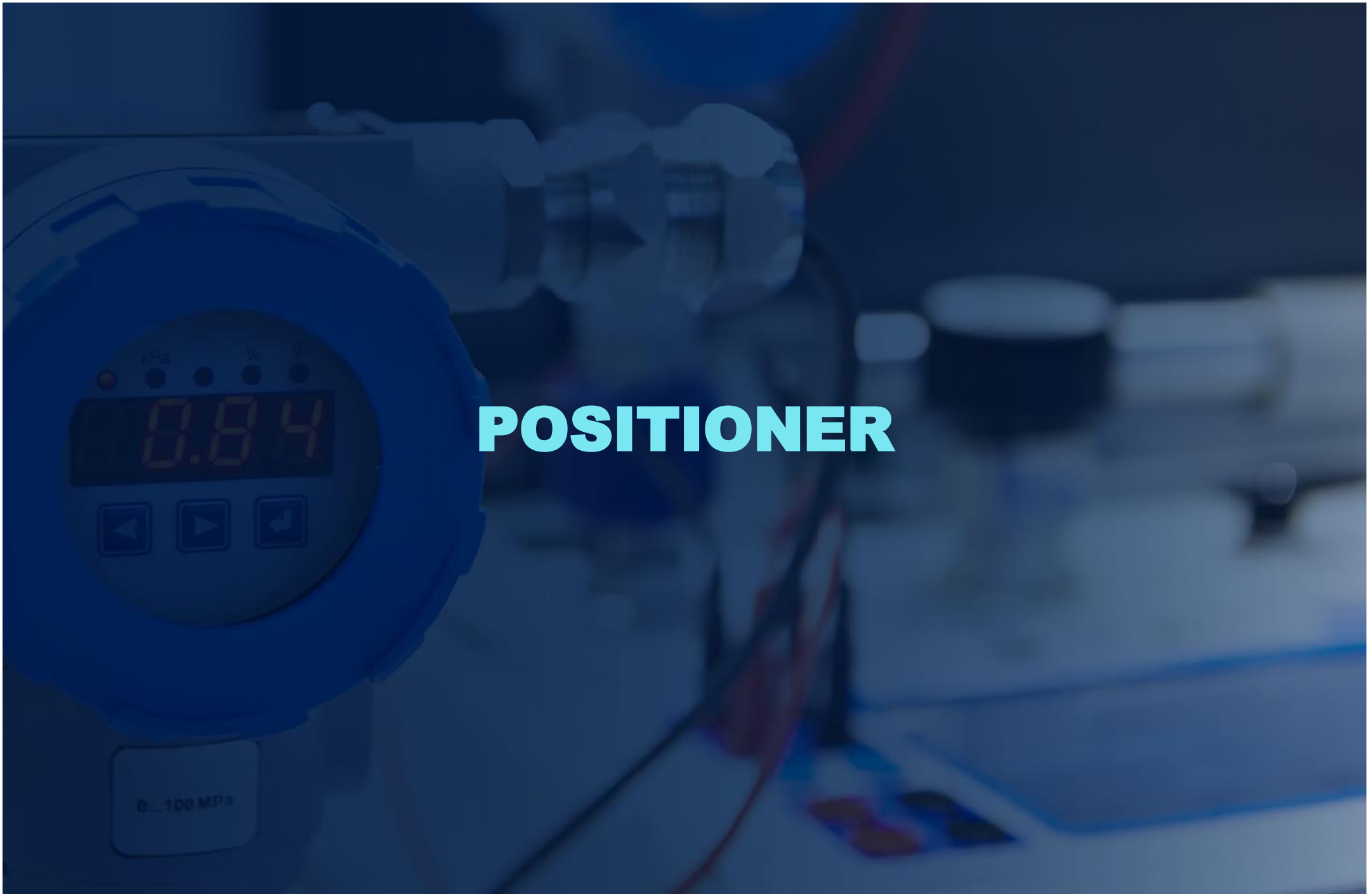
- Uses HART 7 communication protocol;
- Using a HART configurator or Android, EDDL or FDT/DTM tools it is possible to configure the sensor type, measurement scales, work units and calibration, as well as monitor the measurement variables and check the status of the equipment.

POSITION TRANSMITTER – ATP10

ATTA SERIES

MAIN FEATURES

FEATURES	ATP 10
2-wire connection 4-20mA + HART 7	✓
Setting the working range	✓
Magnetic sensor without mechanical contact	✓
Operating Limit Alarms	✓
Position histogram	✓
Remote position sensor (high vibration and high temperature applications)	✓
Multifunctional 5-digit rotary LCD display with bargraph	✓


POSITIONER

POSITIONER

ATTA SERIES

AVP10

- Designed to work with linear or rotary valve actuators, providing precision and control with high availability and reliability;

- Suitable for various types of valves, regardless of action, whether single or double, and size.

POSITIONER – AVP10

ATTA SERIES

FEATURES

- Using a HART configurator or Android, EDDL or FDT/DTM tools it is possible to configure the sensor type, measurement scales, work units and calibration, as well as monitor the measurement variables and check the status of the equipment;

- Positioner parameter configuration, position auto-calibration, PID auto-tuning, calibration verification, diagnostics and monitoring.

POSITIONER – AVP10

ATTA SERIES

MAIN FEATURES

FEATURES	AVP 10
2-wire connection 4-20mA + HART 7	✓
Electronic Coil Technology (No Low Insulation)	✓
Non-contact position sensor (hall sensor)	✓
Suitable for Most Valves/Actuators	✓
Position auto-calibration and PID auto-tuning	✓
Actuator Stroke: Linear 3 to 100 mm and Rotating 30 to 120°	✓
Advanced diagnostics	✓

COMMUNICATION INTERFACES

COMMUNICATION INTERFACES

ATTA SERIES

COMMUNICATION INTERFACES

ATTA SERIES

MAIN FEATURES

FEATURES	ACI 10BH	ACI 10UH
Bluetooth communication with Android and Windows devices	✓	-
Connection via standard USB Type-A	-	✓
AMT-HART app for calibration, configuration and monitoring of HART equipment	✓	-
FSK HART communication	-	✓
Certified HART Modem	✓	✓
Provides power to the equipment (voltage or current)	✓	✓
Compatible with configurators and EDDL and FDT/DTM based HART tools	✓	✓
Communication and battery status LED indicators	✓	✓
Integrated 250 Ohm Resistor	✓	✓

COMMUNICATION INTERFACES

ATTA SERIES

ACI10BH

HART communication interface for use with Bluetooth technology devices.

COMMUNICATION INTERFACES – ACI10-BH

ATTA SERIES

FEATURES

- It allows the connection of any HART equipment based on the FSK (frequency-shift keying) frequency modulation standard with an Android device or Windows tools, via Bluetooth communication;
- The interface can operate on a network or in stand-alone mode, supplying the equipment either by current or voltage;
- This feature is very useful in lab work or in initial setup conditions when the network is not yet established.

COMMUNICATION INTERFACES – ACI10-BH

ATTA SERIES

- Communication with devices

COMMUNICATION INTERFACES – ACI10-BH

ATTA SERIES

FEATURES

- Diagnostic LEDs
  - On – Indicates that the interface is powered by the battery.
  - Charging – Flashes to indicate battery charging.
  - Low Batt – Indicates low battery level.

- Communication LEDs
  - Rx – Indicates reception of communication.
  - Tx – Indicates communication transmission.

COMMUNICATION INTERFACES

ATTA SERIES

ACI10-UH

HART communication interface for use with USB technology devices.

COMMUNICATION INTERFACES – ACI10-UH

ATTA SERIES

FEATURES

- Allows connection to HART networks, facilitating commissioning, operation, maintenance and calibration processes, diagnostics and data acquisition of any instrument;

- The interface can operate in a network or in stand-alone mode, supplying the equipment either by current or voltage, a very useful feature in laboratory work or in initial configuration conditions, when the network is not yet established.

HART COMMUNICATION FOUNDATION · USB · android · Windows

COMMUNICATION INTERFACES – ACI10-UH

ATTA SERIES

- Communication with devices

INTERFACE POWERED EQUIPMENT

THANKS!

Product specialist - Instrumentation

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