

PIEZUS

DESIGN
& MANUFACTURING
AT A HIGHEST LEVEL



PRODUCTS | flow
RANGE | pressure
| level

www.piezus.com

PIEZUS — is a leading manufacturer of a wide range of electronic pressure transmitters, submersible level probes and flowmeters for a broad range of applications and industries.

With the goal to provide our customers with products of the highest quality we employ the latest technologies and state of the art equipment.

Our team is knowledgeable and passionate and includes experts that have decades of combined experience in the electronic pressure, level and flow measurement. In addition to standard product line, we are able to develop and manufacture custom products to meet our customers' requirements.

Our manufacturing process and highly trained technicians are a guarantee of high quality products.

Our sales partners and customers from around the globe know that we are a trustworthy and responsive partner ready to anticipate their needs and meet and exceed their expectations.

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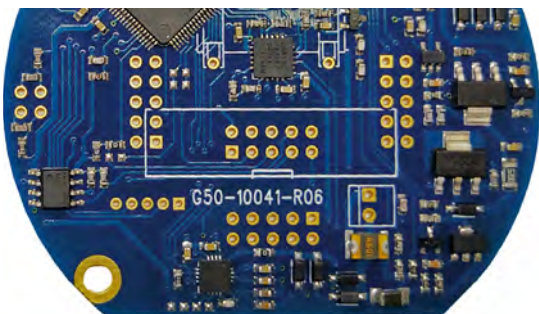
Industries and Applications

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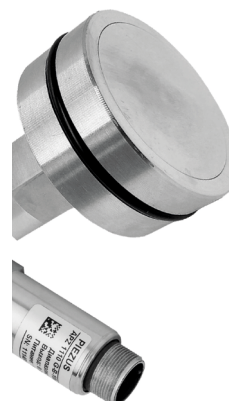
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TECHNOLOGIES

Our R&D team has years of experience in measurement industry and has all the building blocks necessary to implement virtually any custom solution in electronic pressure, level and flow measurement. Our goal is to offer a highly efficient and high quality solution at a lowest cost possible, and as fast as possible.



Sensors

Our instruments utilize field-proven high-quality silicon and ceramic piezoresistive sensors, alongside capacitive ceramic and capacitive sensors with steel diaphragm from leading manufacturers. This variety of sensor technologies and materials offers extensive flexibility for pressure and level transmitter designs. It enables the development of application-specific instruments tailored to different operating conditions, ensuring high measurement accuracy and long-term reliability.



Components

Our electronic modules are based on the ASICs produced by the most respected semiconductor companies and comply with strict reliability and quality standards through comprehensive testing. Implementing these components enables the design of robust instruments with outstanding performance characteristics, along with a wide range of options and versions.



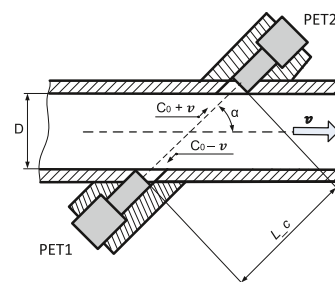
Hardware and Materials

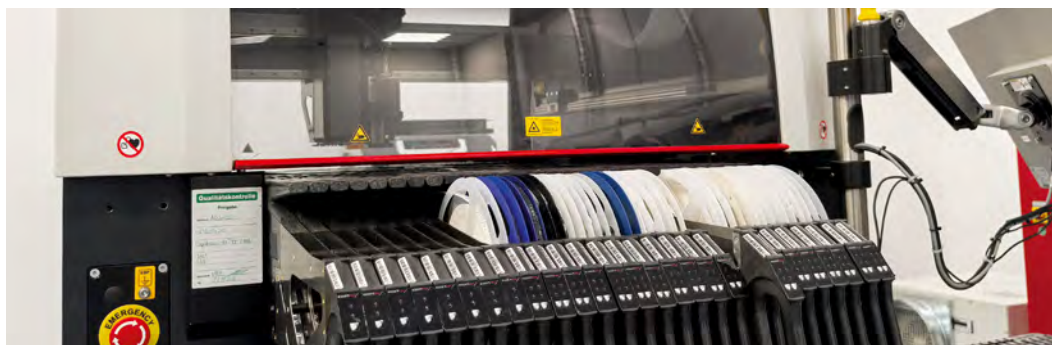
In our designs we use only the best and proven components from the leading and industry recognized manufacturers. This ensures the reliability and durability of the instruments and contributes to increased safety in operation.



Research and Development

PIEZUS R&D team is constantly studying new technologies in electronic pressure, level and flow measurement to make sure we can offer our customers the best solution at the right price.





MANUFACTURING FACILITIES

Leveraging its internal manufacturing capabilities, PIEZUS offers cost-effective solutions tailored to meet each customer's specific requirements.



Machining

Our state of the art production facilities are equipped with high performance machining centers. Our machines are professionally maintained to ensure the best possible quality and precision of all mechanical parts we produce for our products.



Welding and Leak Testing

We have an extensive range of welding capabilities, including state of the art machines for resistance welding, laser welding, spot welding. We use sophisticated helium leak detection process to verify the quality of our welds.



Electronic Modules Manufacturing

Our SMT PCB production line allows us to manufacture limited quantities of electronic modules with custom parameters.



Thermal and Humidity Test Chambers

We provide temperature calibration and compensation from the lowest to the highest temperatures using our high performance thermal and humidity test chambers.



Oil Filling

We can offer our customers oil filling services for various types of remote diaphragm seals.



Calibration

Our calibration facilities are equipped with high precision metrology instruments.

Software

Our sophisticated enterprise manufacturing software ensures that every product we make is tracked from our parts warehouse to our completed products warehouse through every manufacturing step on time, so that our customers get their orders as soon as possible.

Additional Equipment

Our injection molding machines, laser cutting and engraving equipment add flexibility to the spectrum of our capabilities.

OUTPUT SIGNAL

Frequency output: 0.1...3000 Hz
Current output: 4...20 mA
Digital interface: RS-485 (Modbus RTU),
HART (optional)

DYNAMIC RANGE

up to 1:250

CERTIFIED FOR EXPLOSIVE ATMOSPHERE

0Ex ia IIC T6...T4 Ga X
(Intrinsic safety)
1Ex d IIC T6...T4 Gb X
(Flameproof enclosure)

ACCURACY

Starting at $\pm 0.2\%$

**REMOTE MONITORING,
DIAGNOSTICS AND CONFIGURATION**
using software P-Control

SENSOR AND TRANSMITTER

Compact and remote versions
(IP67-IP68)

**LINE
DIAMETERS**
DN 2...1600 mm

PRESSURE
up to 10 MPa

LINER

Hard rubber (HR)
PTFE
PFA
Polyurethane (PU)
Neoprene (NE)
FEP-PFA
PPS
PVDF

ELECTRODE

Stainless steel 316L
Hastelloy (nickel alloy)
Titanium
Platinum
Tantalum
Tungsten carbide

BUILT-IN ELECTRODE CLEANING CIRCUIT FUNCTION

"EMPTY PIPE" FUNCTION
Partially filled pipe monitoring

SENSOR MATERIAL

stainless steel 20 with coating
stainless steel AISI 304 / 316
and others

THE FLOW MEASUREMENT IS BI-DIRECTIONAL

MECHANICAL CONNECTION

Flange
Wafer
Hygienic
Threaded

MEDIA TEMPERATURE

-60...+180 °C



NovaMAG Pro is a series of electromagnetic flowmeters with high accuracy and stability of measurements. The instruments are designed for process and custody metering of conductive liquids, such as acid and alkali solutions, food mixtures and slurries, hot/cold water, and wastewater.

The flowmeters have a built-in electrode self-cleaning function. This prevents accumulation of deposits that can affect the accuracy of the device. An output option with a HART interface is available. NovaMAG is available in a compact and remote design. NovaMAG electromagnetic flowmeter is available with a wide range of diameters. Flanged, hygienic and sandwich connections are available. The flow rate and volume of liquid can be measured in two directions - forward and reverse.



NovaMAG Pro general industrial/Ex

General industrial / Ex
electromagnetic flowmeter

Velocity range:
0.05...12.5 m/s
Flow rate range:
0.0141...90477.9 m³/h
Accuracy:
±0.2 / 0.25 / 0.5 / 1 %
Line diameters:
10...1600 mm
Mechanical connection:
flange
wafer
Liner:
Hard rubber (HR)
PTFE
Polyurethane (PU)
PFA
Neoprene (NE)
FEP/ F46
Pulse outputs:
to 50 pulse/s (passive)
Frequency output:
0.1...3000 Hz (passive)
Current output:
4...20 mA (passive/active)
Digital interface:
RS-485 (Modbus RTU);
HART® (optional)
Ethernet (Modbus RTU)
Media temperatures:
-60...+180 °C (consult version)
Ambient temperatures:
-60...+70 °C (consult version)



NovaMAG Pro hygienic

Hygienic
electromagnetic flowmeter

Velocity range:
0.05...12.5 m/s
Flow rate range:
0.056...1413.717 m³/h
Accuracy:
±0.2 / 0.25 / 0.5 / 1 %
Line diameters:
10...200 mm
Mechanical connection:
Taper socket with grooved union
Tri-Clamp
Liner:
PTFE
Polyurethane (PU)
PFA
Neoprene (NE)
FEP/ F46
Pulse outputs:
to 50 pulse/s (passive)
Frequency output:
0.1...3000 Hz (passive)
Current output:
4...20 mA (passive/active)
Digital interface:
RS-485 (Modbus RTU);
HART® (optional)
Ethernet (Modbus RTU)
Media temperatures:
-60...+180 °C (consult version)
Ambient temperatures:
-60...+70 °C (consult version)



NovaMAG Pro for small diameters

Electromagnetic flowmeter
for small diameters

Velocity range:
0.05...12.5 m/s
Flow rate range:
0.00113...2.26195 m³/h
Accuracy:
±0.2 / 0.25 / 0.5 / 1 %
Line diameters:
2...8 mm
Mechanical connection:
flange
threaded
wafer
Liner:
PPS
PVDF
Pulse outputs:
to 50 pulse/s (passive)
Frequency output:
0.1...3000 Hz (passive)
Current output:
4...20 mA (passive/active)
Digital interface:
RS-485 (Modbus RTU);
HART® (optional)
Ethernet (Modbus RTU)
Media temperatures:
-60...+180 °C (consult version)
Ambient temperatures:
-60...+70 °C (consult version)

The NovaMAG Pro electromagnetic flowmeters are available in compact, remote, and combined versions. The remote version is utilized in applications with high process fluid temperatures, pipeline vibration, field flow sensor installation, or where access to the sensor installation site is obstructed. The flowmeter transmitter is available in six housing variations.

Additional transmitter features include:

- Backlit LCD or OLED display
- Data logging / archiving
- Remote PC configuration via P-Control software
- Password-protected access



ABS transmitter for remote flowmeter version

Housing material: ABS with a transparent lid
Ingress protection: IP65
Ambient temperature: -20 to +50 °C
Certified for explosive atmosphere: no



Aluminum transmitter for remote flowmeter version

Version 1 (standard transmitter)
Housing material: Aluminum
Ingress protection: IP67
Ambient temperature: -60 to +80 °C
Certified for explosive atmosphere: 1Ex db [ia] IIC T6 Gb X



Aluminum transmitter for remote flowmeter version

Version 2 (compact transmitter)
Housing material: Aluminum
Ingress protection: IP67
Ambient temperature: -60 to +80 °C
Certified for explosive atmosphere: 1Ex db [ia] IIC T6 Gb X



Transmitter of compact flowmeter version

Version 1 (standard transmitter)
Housing material: Aluminum
Ingress protection: IP67
Ambient temperature: -60 to +80 °C
Certified for explosive atmosphere: 1Ex db IIC T6... T4 Gb X



Compact transmitter of compact flowmeter version

Version 2 (compact transmitter)
Housing material: Aluminum
Ingress protection: IP67
Ambient temperature: -60 to +80 °C
Certified for explosive atmosphere: 1Ex db IIC T6... T4 Gb X



Stainless steel transmitter of compact flowmeter version

Version 3 (stainless steel transmitter)
Housing material: Stainless steel
Ingress protection: IP67 / 68
Ambient temperature: -60 to +80 °C
Certified for explosive atmosphere: no

LINER VERSIONS

PIEZUS



Industrial hard rubber (HR)

Used for clean and contaminated liquids, cold or hot water with an operating temperature in range -20 to +80 °C. Poor resistance to acids and alkalis.



PTFE

Resistant to acids and alkalis and is used for chemically aggressive liquids with an operating temperature range -40 to +150 °C. The most universal lining and is widely used in the chemical and food industries.



PFA

Resistant to acids, alkalis, and almost all chemicals and solvents with an operating temperature range -40 to +180 °C. Commonly used in critical or highly corrosive processes in chemical and food industries. Due to its reinforcement, it has ability to maintain its structure under negative pressure.



PU

Used for highly abrasive media. Has high mechanical strength and excellent wear resistance, but poor resistance to solvents and solutions of acids and alkalis. Use is limited by operating temperature of medium in range -60 to +80 °C.



NE

Has high elasticity. Good wear resistance to abrasive media, but poor resistance to acids and alkalis. Use is limited by operating temperature of medium in range -20 to +80 °C.



FEP-PFA

Resistant to acids and alkalis, used for chemically aggressive liquids with an operating temperature range from -40 to +150 °C.



PPS

Is high resistance to almost all solvents, many acids and alkalis, has exceptional heat resistance and an operating range from -20 to +220 °C.



PVDF

High resistance to almost all environments, including hydrogen peroxide, chlorine, and hydrofluoric, nitric, and maleic acids, with an operating temperature range from -20 to +120 °C.

ELECTRODE VERSIONS

Flowmeters have a built-in electrode self-cleaning function. This prevents accumulation of deposits that can affect the accuracy of the device.

Stainless steel AISI 316 – is used for all water-based liquids and other media with low concentrations of acids and alkalis, including dairy products, mineralized water, seawater, and wastewater.

Hastelloy – meets the increased requirements of most industrial systems for resistance to acidic and alkaline media.

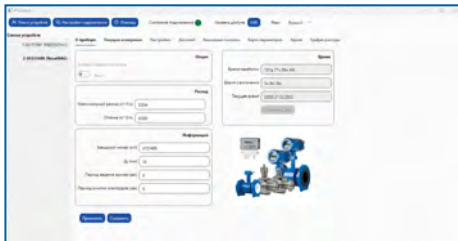
Tantalum – is used for aggressive chemical media (except alkaline ones): nitric, sulfuric, and hydrochloric acids.

Titanium – is corrosion-resistant to most media, used for some acids, alkalis and liquid agricultural waste.

Platinum – is chemically very stable and used for highly aggressive liquids, such as concentrated acids and alkalis.

Tungsten carbide – is very wear-resistant to abrasive media that cause wear and chipping of surfaces. Resistant to acids at normal temperatures.

PC software P-Control provides the ability to monitor, diagnose, and configure devices that are part of the group of electronic flowmeters: NovaMAG Pro, PIEZOSONIC.



P-Control

PC software for flowmeters configuration and monitoring

Functions:

- Connecting to the flowmeters via the RS-485 interface
- Measurement real-time monitoring
- Measurement results reading and saving
- Tuning the parameters that do not affect metrology
- Viewing and saving programmable device parameters to a text file
- Working with the device archive
- Getting information about the device and its main parameters

Features:

- Connecting up to 15 devices
- Remote access and device configuration
- Working with electromagnetic flowmeters NovaMAG / NovaMAG Pro and ultrasonic flowmeters PIEZOSONIC on the same network



Flange, fasteners, seals

Flanges of international standards:

- EN 1092-1,
- ASME B16.5-2017,
- GOST 33259-2015

and fasteners – bolts, hairpins, nuts, washers, pins and gaskets.

Material selection is based on the technical requirements of the installation site and the characteristics of the original pipeline.



Grounding rings

Special grounding rings must be used when installing the sensor in non-metallic or lined pipelines.

Grounding rings can be made of various materials, such as AISI 304 and 316 stainless steel, as well as platinum, titanium, or tantalum.



Mechanical dummy (mounting insert / coil)

It is recommended to use a spacer (dimensional dummy) during installation and testing, to avoid damaging the flowmeter.

PIEZUS manufactures spacers that match the dimensions and flowmeters sizes.



Connecting sections

The flowmeter can be installed using a connecting section when a pipeline diameter needs to be reduced, for example, when it is not completely full or has a low flow rate. This section allows the nominal diameter of the pipeline to be reduced to the required measurement value.

ACCURACY
Starting at $\pm 0.5\%$

OUTPUT SIGNALS

Analogue output: 4...20 mA
Frequency output: 0.5...2000 Hz
Digital output: RS-485 (Modbus RTU)

**NON-VOLATILE MEASUREMENT
ARCHIVE**

REMOTE CONFIGURATION

CHANNELS

one or two measurement channels –
connection to two sensors in one transmitter



**DESIGNED TO MEASURE
NONCONDUCTIVE
LIQUIDS FLOW**

VERSION

single beam or
double beam versions

FLOW PATH MATERIAL

Stainless steel 20
with coating
Mild steel

LINE DIAMETERS
DN 50...2000 mm

PRESSURE
up to 6.3 MPa



SENSORS

ultra-high energy excitation titanium corrosion
resistant transducers
improved electronics make transducers resistant
to acoustic interference and vibration

MECHANICAL CONNECTION

Flange
Hygienic
Welding connection

INGERSS PROTECTION
IP65, IP67, IP68

MEDIA TEMPERATURE
-40...+150 °C



PIEZOSONIC – is a series of the transit time technology ultrasonic flow meters.

These are advanced ultrasonic flowmeters featuring high excitation voltage. The instruments utilize corrosion-resistant piezoelectric transducers at their core. Advanced transmitters minimize susceptibility to acoustic noise and pipeline vibration. PIEZOSONIC ultrasonic flowmeters are designed to measure the volumetric flow rate and total volume of homogeneous conductive and non-conductive liquids. They are available in single-beam or double-beam configurations and can be supplied with or without a measuring section.



PIEZOSONIC

Ultrasonic flowmeters

Pressure:
max 2.5 MPa (6.3 MPa, optionally)
Diameter ranges: 50...2000 mm
Frequency output:
0.5...2000 Hz (passive, $U_s = 5...25$ V, $I_{max} = 50$ mA)
Analogue output: 4...20 mA (passive, $U_s = 12...30$ V)
Digital output: RS-485 (Modbus RTU)
Kinematic viscosity: 0.2...25 mm²/s
Ingress protection: IP65, IP67, IP68
Media temperature: -40...+150 °C
Ambient temperature: 0...+50 °C



PET

Piezoelectric transducer (set of 2 pcs.)

Maximum pressure:
not more than 6.3 MPa
Diameter: 24 mm
Operating frequency: 1.25 MHz
Wetted part material: titanium
Electrical connection:
DIN43650C (IP65);
M12x1 (IP67);
cable gland (IP68)
Media temperature: -40...+150 °C

ELECTRICAL CONNECTION



- DIN 43650A, DIN 43650C



- M12x1



- M16



- Cable gland



- AMP-Superseal 1.5



- Packard Metri-Pack

- Buccaneer

- Custom

MEDIUM TEMPERATURE

-50 °C to +300 °C
with radiator



CERTIFIED FOR EXPLOSIVE ATMOSPHERE

0Ex ia IIC T6...T4 Ga X
(Intrinsic safety)

1Ex d IIC T6...T4 Gb X
(Flameproof Enclosure)

OUTPUT SIGNALS

Analog output: current, voltage

Digital:

HART®

CAN bus

RS-485/Modbus RTU

ACCURACY

Down to 0.1 %
(TPM method, incl. linearity,
hysteresis and repeatability)

PRESSURE RANGES

5 mbar to 1000 bar

MEASUREMENT TYPE

Gauge

Absolute

Vacuum

Differential

DIAPHRAGM MATERIAL

- Stainless steel
(most models)

- Ceramics

APZ 2410 Page 15

APZ 2412 Page 15

APZ 3410 Page 16

APZ 3240 Page 16

APZ 2410 a Page 17

- Silicon

APZ 3230 Page 18

PRESSURE PORT

- DIN 3852, EN 837-1, NPT, UNF

- Open port versions

- Flush diaphragm versions

- With O-ring face seal (ORFS) connection

- Flange connections

- Sanitary connections

- Special rugged options

- Custom versions

SEALS

FKM, FFKM,

EPDM, NBR,

VMQ and others

PRESSURE PORT MATERIALS

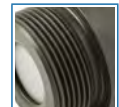
- Stainless steel
(most models)



- PVC

APZ 3410 Page 16

APZ 3240 Page 16



- PVDF

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BASIC SERIES

General Industrial Page 15

Economy Line Page 15

SPECIALIZED SERIES

For Aggressive, Viscous, Abrasive Media Page 16

With Diaphragm Seal (oil filled) Page 16

Versions for HVAC and Non-Aggressive Gases Page 18

High Temperature Versions Page 16



FIELD HOUSING

Options available on
selected models

SELECTION GUIDE

PIEZUS

Model, Page	Accuracy					Pressure ranges	Measurement type				Output signals				Medium temperature		Pressure port								Certified for explosive atmosphere
	%						Gauge	Absolute	Vacuum	Differential	Current	Voltage	Digital	Relay	°C		DIN	EN	NPT	Exposed Diaphragm	Open port	Flush Diaphragm	Food Grade	Flange	
	1.5	1	0.5	0.25	0.1										min	max									
APZ 3420 Page 15			•	•		0...0.04 0...600	•	•	•		•	•	•		-40	+125	•	•	•	•	•				0Ex ia 1Ex d
APZ 3421 Page 15					•	0...0.04 0...600	•	•	•		•	•	•		-40	+105	•	•	•						0Ex ia 1Ex d
APZ 3020 Page 15				•		0...0.1 0...25				•	•	•	•		-40	+125	•	•	•						0Ex ia 1Ex d
APZ 2410 Page 15		•				0...1 0...160	•				•				-25	+135	•	•	•						
APZ 2422 Page 15		•	•			0...2 0...600	•		•		•	•			-40	+125	•	•	•						
APZ 3240 Page 16				•		0...0.4 0...10	•				•		•		-20	+125	•								0Ex ia 1Ex d
APZ 3410 Page 16			•			0...0.6 0...600	•	•	•		•	•			-25	+135	•	•	•	•	•		•		0Ex ia 1Ex d
APZ 3420 m Page 16				•		0...0.1 0...600	•	•	•		•	•	•		-40	+125		•				•	•	•	0Ex ia 1Ex d
APZ 3420 s Page 16				•		0...0.1 0...40	•	•	•		•	•	•		-20	+125	•					•	•		0Ex ia 1Ex d
APZ 4420 Page 17			•			0...5000 psi 0...15000 psi	•				•				-40 -40	+125 +85	WEKO® 2" (1502)								0Ex ia
APZ 2410 a Page 17		•				0...1 0...40	•				•				-25	+135	•	•	•						
APZ 2422 a Page 17		•	•			0...6 0...600	•				•				-40	+125	•	•	•						
APZ 3230 Page 18				•		0...0.006 0...1	•		•		•	•	•		-40	+125	•	•	•						0Ex ia
APZ 2035 Page 18	•					100...7000 Pa				•	•	•	•		-5	+65	Barbed, for 4 mm ID tube								
APZ 3420 x Page 22			•	•	•	0...0.4 0...600	•	•	•		•	•	•	•	-40	+125	•	•	•						1Ex d

BASIC SERIES

General Industrial



APZ 3420

Standard industrial pressure transmitter

Pressure ranges: 0...0.04 bar to 0...600 bar

Accuracy: $\pm 0.5 / 0.25 / 0.2\%$

Sensor: silicon piezoresistive

Measurement type:
gauge, absolute, vacuum

Output signals:

4...20 mA	0...10 V	RS-485/Modbus RTU
0...20 mA	0...5 V	HART®
0...5 mA	0.5...4.5 V	UART

Pressure port:

M10x1	G1/2"	1/4"
M12x1	G1/4"	1/2"
M12x1.25	Open port:	
M12x1.5	G1/2"	
M16x1.5	Flush	
M20x1.5	diaphragm:	
Open port:	G1/2"	
M20x1.5	G3/4"	
Flush		

diaphragm:

M20x1.5

Media temperature: -40...+125 °C

Ambient temperature: -40...+85 °C

Optional: field housing with/without graphics display;
1 or 2 relay output PNP (optional, only with display)



APZ 3421

Precision pressure transmitter

Pressure ranges: 0...0.04 bar to 0...600 bar

Accuracy: $\pm 0.1\%$

Sensor: silicon piezoresistive

Measurement type:
gauge, absolute, vacuum

Output signals:

4...20 mA	0...10 V	RS-485/Modbus RTU
0...20 mA	0...5 V	HART®
0...5 mA	0.5...4.5 V	

Pressure port:

M10x1	G1/2"	1/4"
M12x1	G1/4"	1/2"
M12x1.25	Flush	
M12x1.5	diaphragm:	
M16x1.5	G3/4"	
M20x1.5	G1/2"	
Flush	Open port:	
diaphragm:	G1/2"	
M20x1.5		

Media temperature: -40...+125 °C

Ambient temperature: -40...+85 °C

Optional: field housing with/without graphics display;
1 or 2 relay output PNP (optional, only with display)



APZ 3020

Industrial differential pressure transmitter

Pressure ranges: 0...0.1 bar to 0...25 bar

Accuracy: $\pm 0.25\%$

Sensor: true differential silicon piezoresistive

Measurement type:
differential

Output signals:

0...20 mA	0...5 V	RS-485/Modbus RTU
4...20 mA	0...10 V	HART®
	0.5...4.5 V	

Pressure port:

M12x1.5	G1/2"	7/16"
M20x1.5	G1/4"	

Media temperature: -40...+125 °C

Ambient temperature: -40...+85 °C

Optional: field housing with/without graphics display;
1 or 2 relay output PNP (optional, only with display)

Economy line



APZ 2410

Economy line dual-range pressure transmitter

Pressure ranges: 0...1 bar to 0...160 bar

Accuracy: $\pm 1\%$

Sensor: ceramic piezoresistive

Measurement type: gauge

Output signals: 4...20 mA

Pressure port:

M20x1.5	G1/2"	1/4"
	G1/4"	1/2"

Media temperature: -25...+135 °C

Ambient temperature: -40...+85 °C



APZ 2422

Economy line dual/triple-range pressure transmitter

Pressure ranges: 0...2 bar to 0...600 bar

Accuracy: ± 0.5

Sensor: silicon piezoresistive

Measurement type: gauge, vacuum

Output signals:

1...5 V / 3-wire	4...20 mA / 2-wire
0...5 V / 3-wire	4...20 mA / 3-wire
0...10 V / 3-wire	
0.5...4.5 V / 3 wire ratiometric	

Pressure port:

M20x1.5	G1/2"	1/4"
	G1/4"	1/2"

Media temperature: -40...+125 °C

Ambient temperature: -40...+85 °C

SPECIALIZED SERIES

For Aggressive, Viscous, Abrasive Media



APZ 3240

Precision pressure transmitter for aggressive/viscous/abrasive media

Pressure ranges: 0...0.4 bar to 0...10 bar

Accuracy: $\pm 0.25\%$

Sensor: high precision ceramic piezoresistive

Measurement type: gauge, absolute

Output signals:

4...20 mA RS-485/Modbus RTU
HART®

Pressure port:

G1 1/2"

Media temperature: -25...+125 °C

Ambient temperature: -40...+85 °C

Optional: field housing with/without graphics display;
1 or 2 relay output PNP (optional, only with display)



APZ 3410

Industrial pressure transmitter for aggressive/viscous/abrasive media

Pressure ranges: 0...0.6 bar to 0...600 bar

Accuracy: $\pm 0.5\%$

Sensor: ceramic piezoresistive

Measurement type: gauge, absolute, vacuum

Output signals:

4...20 mA 0...10 V
0...20 mA 0...5 V
0...5 mA 0.5...4.5 V

Pressure port:

M10x1	G1/2"	G 1", cone, flush diaphragm
M12x1	G1/4"	G 1", flush diaphragm, aseptic version AR
M12x1.25	Open port:	Aseptic version S30x2-7h DIN 513 /
M12x1.5	G1/2"	GOST 10177-82, flush diaphragm
M16x1.5	Flush diaphragm:	
M20x1.5	G1/2"	
Open port:	G3/4"	
M20x1.5		
Flush diaphragm:		
M20x1.5		

Media temperature: -20...+135 °C

Ambient temperature: -40...+85 °C

With Diaphragm Seal



APZ 3420 m

Pressure transmitter with flush diaphragm for viscous media

Pressure ranges: 0...0.1 bar to 0...600 bar

Accuracy: $\pm 0.25\%$

Sensor: silicon piezoresistive

Measurement type: gauge, absolute, vacuum

Output signals:

4...20 mA	0...10 V	RS-485/Modbus RTU
0...20 mA	0...5 V	HART®
0...5 mA	0.5...4.5 V	

Pressure port:

Flange:	Exposed Diaphragm:	Flush Diaphragm:
DN25/PN40	M20x1.5	Flange
DN40/PN40	M30x2	threaded
DN50/PN40	G1/2"	
DN80/PN16	G3/4"	DRD DN50 D=65 mm
DN100/PN40	G1"	
	G1 1/2"	
	G1/2" PASVE	

Media temperature:

- 40...+125 °C

(consult fill fluid and diaphragm design)

Ambient temperature: -40...+85 °C

Optional:

- field housing with/without graphics display
- heat sink for media up to 300 °C
- remote diaphragm seal connection with optional capillary tube



APZ 3420 s

Sanitary pressure transmitter with flush diaphragm

Pressure ranges: 0...0.1 bar to 0...40 bar

Accuracy: $\pm 0.25\%$

Sensor: silicon piezoresistive

Measurement type: gauge, absolute, vacuum

Output signals:

4...20 mA	0...10 V	RS-485/Modbus RTU
0...20 mA	0...5 V	HART®
0...5 mA	0.5...4.5 V	

Pressure port:

Taper socket	Clamp	Exposed Diaphragm:
with grooved	DN 25	G1"
union:	DN 40	EHEDG
DN 25	DN 50	Cone
DN 40		
DN 50		SMS 1 1/2"
DN 65		Tube diameter 43.5 mm, length 45 mm, custom seal

Media temperature:

-20...+125 °C

(consult fill fluid and diaphragm design)

Ambient temperature: -40...+85 °C

Optional:

- field housing with/without graphics display
- heat sink for media up to 300 °C
- remote diaphragm seal connection with optional capillary tube

SPECIALIZED SERIES

Heavy Duty Versions



APZ 4420

Heavy duty pressure transmitter

Pressure ranges: 0...5000 psi to 0...15000 psi

Accuracy: $\pm 0.5\%$

Sensor: thin-film metal piezoresistive

Measurement type: gauge

Output signals:

4...20 mA

Pressure port:

WEKO® 2" (1502)

Media temperature: -40...+125 °C (Ex: -40...+85 °C)

Ambient temperature: -40...+125 °C (Ex: -40...+85 °C)

Option: Intrinsic safety (Ex ia)

OEM SERIES



APZ 2410 a

Compact line
pressure transmitter

Pressure ranges: 0...1 bar to 0...40 bar

Accuracy: $\pm 1\%$

Sensor: ceramic piezoresistive

Measurement type: gauge

Output signals:

4...20 mA

Pressure port:

G1/4" 1/4" 7/16"

G1/8" 1/8"

Media temperature:

-25...+135 °C

Ambient temperature:

-40...+85 °C

Ultra-compact design



APZ 2422 a

Compact line
pressure transmitter

Pressure ranges: 0...6 bar to 0...600 bar

Accuracy: $\pm 0.5\%$ / 1%

Sensor: silicon piezoresistive

Measurement type: gauge

Output signals:

4...20 mA

Pressure port:

G1/4" 1/4" 7/16"

G1/8" 1/8"

Media temperature:

-40...+125 °C

(depends on seal)

Ambient temperature:

-40...+85 °C

Compact design

SPECIALIZED SERIES

Versions for HVAC and Non-Aggressive Gases



APZ 3230

Pressure transmitter for very low pressures and vacuum

Pressure ranges: 0...0.006 bar to 0...1 bar

Accuracy: $\pm 0.25\%$

Sensor: silicon piezoresistive, no media isolation

Measurement type: gauge, vacuum

Output signals:

0...20 mA 0...5 V RS-485 / Modbus RTU

4...20 mA 0...10 V

0.5...4.5 V

Pressure port:

M10x1 G1/2" 1/2"

M12x1 G1/4" 1/4"

M12x1.5

M16x1.5

M20x1.5

Media temperature: -40...+90 °C

Ambient temperature: -40...+85 °C

Optional: Intrinsic safety (Ex ia)



APZ 2035

Differential pressure transmitter for ventilation and air conditioning

Pressure ranges: 100 Pa to 7000 Pa

Accuracy: $\pm 1.5\%$

Sensor: silicon piezoresistive

Measurement type: differential

Output signals:

4...20 mA 0...10 V

Pressure port:

barbed, for 4 mm ID tube

Media temperature: -5...+65 °C

Ambient temperature: -10...+50 °C

PC SOFTWARE AND ACCESSORIES

The **P-MODBUS** and **P-HART** software enables remote monitoring, diagnostics, and configuration of devices via Modbus RTU and HART® digital protocols.

The **PCON 300** allows connecting a PC to smart transmitters supporting the HART® protocol. The device functions as a HART® modem, processing the frequency-modulated signal at the HART® input and performing interface conversion (bidirectional data exchange between USB and HART® ports while servicing up to 15 HART® devices connected to a single loop). It is powered via the USB port and provides galvanic isolation between the interfaces.



PCON 300

HART modem

Design: Compact housing with a USB connector

Power: from computers USB port

Consumption: 0.5 W max

Ingress protection: IP51

ACCURACY

Starting at 0.075* %
(TPM method, including linearity, hysteresis and repeatability)

* $\pm 0.04\%$ / $\pm 0.06\%$ for models AMZ 5055 and AMZ 5455

DIGITAL DISPLAY

LED-backlit LCD,
optional

CONFIGURABLE

ZERO and SPAN configurable
with buttons

TURNDOWN

Up to 100:1

OUTPUT SIGNAL

4...20 mA / HART®

ELECTRICAL CONNECTION

wide range of cable glands choice

CERTIFIED FOR EXPLOSIVE ATMOSPHERE

0Ex ia IIC T6...T4 Ga X
(Intrinsic safety)

1Ex d IIC T6...T4 Gb X
(Flameproof enclosure)

1Ex d ia IIC T6... T4 Gb X
(Flame- intrinsic-safety version)

1Ex db IIC T6...T4 Gb X

PRESSURE PORT

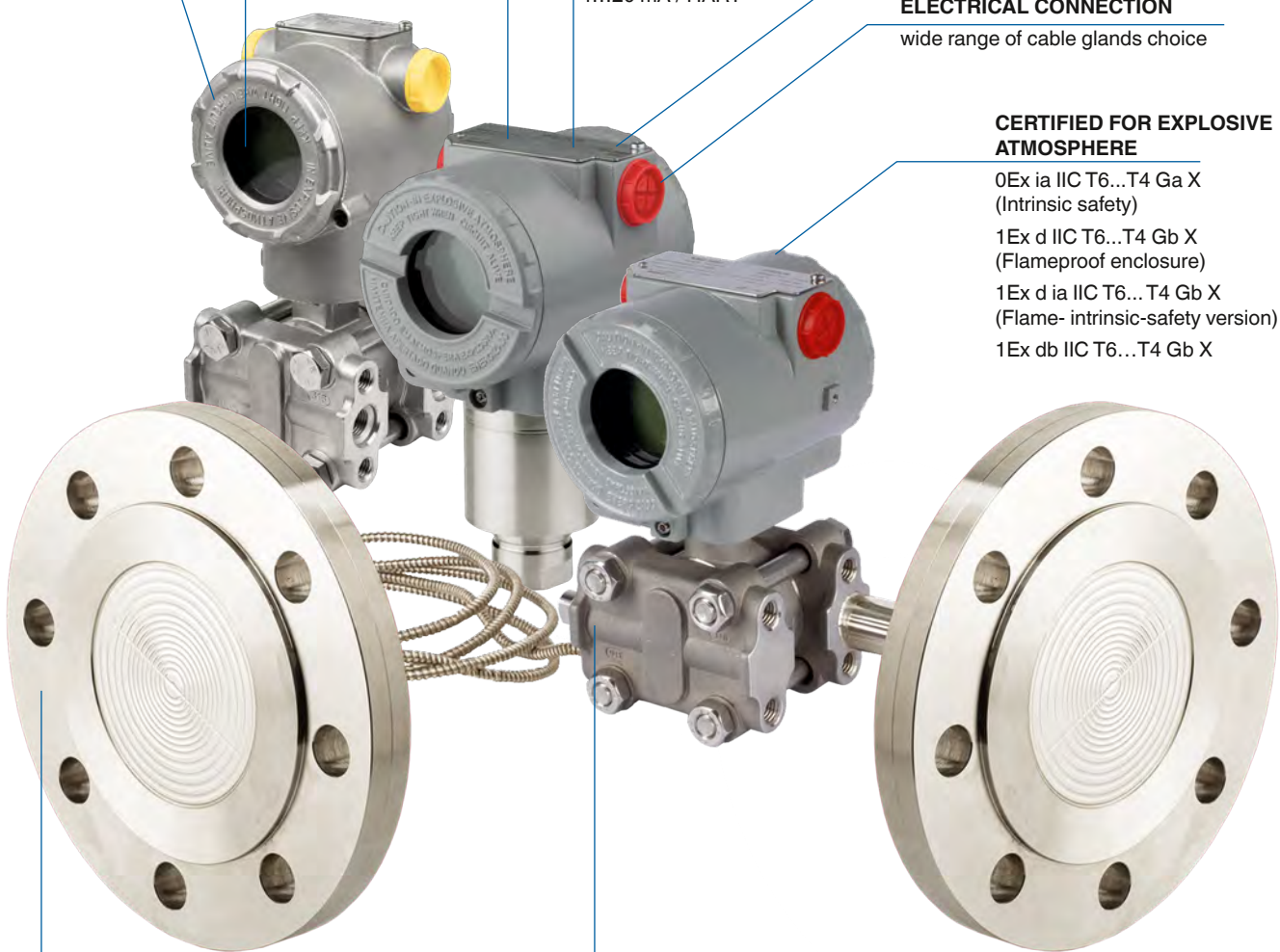
Optional flange connections
hygienic connections
remote diaphragms

SEALS

FKM, EPDM, NBR, PTFE

MEDIUM TEMPERATURE

-60 °C to +300 °C
(depends on versions)



Pressure Transmitters in Flameproof Enclosure



AMZ 5055

Smart differential pressure transmitter with HART communication

Pressure ranges: 0.015 bar to 0...70 bar

Accuracy: $\pm 0.04\%$ / $\pm 0.06\%$

Measurement type: differential, gauge, absolute

Output signals:
4...20 mA HART®

Pressure port:
1/2" Remote diaphragms:
1/4" flange
hygienic

Media temperature:
-60...+105 °C (depends on seal)

Ambient temperature:
-60...+85 (consult temperature class)



AMZ 5455

High precision smart pressure transmitter with HART communication

Pressure ranges: 0.015 bar to 0...600 bar

Accuracy: $\pm 0.04\%$ / $\pm 0.06\%$

Measurement type: gauge, absolute, vacuum

Output signals:
4...20 mA HART®

Pressure port:
1/2" Remote diaphragms:
M20x1.5 flange
hygienic
G1/2" threaded

Media temperature:
-60...+105 °C
-60...+100 °C
-60...+125 °C
(depends on seal and sensor version)

Ambient temperature:
-60...+85 °C (consult temperature class)



AMZ 5055 with flush diaphragms

Smart differential pressure transmitter with HART communication with flush diaphragms

Pressure ranges: 0.015 bar to 0...70 bar

Accuracy: $\pm 0.04\%$ / $\pm 0.06\%$

Measurement type: differential, absolute, gauge

Output signals:
4...20 mA HART®

Pressure port – flush diaphragms:
flange flange, tubular

Media temperature:
-60 °C to +300 °C (depends on versions)

Ambient temperature:
-60...+85 °C (consult temperature class)



AMZ 5455 with flush diaphragms

High precision smart pressure transmitter with HART communication with flush diaphragms

Pressure ranges: 0.015 bar to 0...600 bar

Accuracy: $\pm 0.04\%$ / $\pm 0.06\%$

Measurement type: gauge, absolute

Output signals:
4...20 mA HART®

Pressure port – flush diaphragms:
flange flange, tubular

Media temperature:
-60 °C to +300 °C (depends on versions)

Ambient temperature:
-60...+85 °C (consult temperature class)



AMZ 5050

Smart differential pressure transmitter with HART communication

Pressure ranges: 0.015 bar to 0...70 bar

Accuracy: $\pm 0,075\%$

Measurement type: differential, gauge, absolute

Output signals:

4...20 mA HART®

Pressure port:

1/2" Remote diaphragms:
1/4" flange
hygienic

Media temperature:

-40...+105 °C (depends on seal)

Ambient temperature:

-40...+85 (consult temperature class)



AMZ 5450

Smart pressure transmitter with HART communication

Pressure ranges: 0.015 bar to 0...600 bar

Accuracy: $\pm 0,075\%$

Measurement type: gauge, absolute, vacuum

Output signals:

4...20 mA HART®

Pressure port:

1/2" Remote diaphragms:
M20x1.5 flange
hygienic
G1/2" threaded

Media temperature:

-40...+105 °C

-40...+100 °C

-40...+125 °C

(depends on seal and sensor version)

Ambient temperature:

-40...+85 °C (consult temperature class)



AMZ 5050 with flush diaphragms

Smart differential pressure transmitter with HART communication with flush diaphragms

Pressure ranges: 0.015 bar to 0...70 bar

Accuracy: $\pm 0,075\%$ / $\pm 0,1\%$ / $\pm 0,15\%$

Measurement type: differential, absolute, gauge

Output signals:

4...20 mA HART®

Pressure port – flush diaphragms:

flange flange, tubular

Media temperature:

-60 °C to +300 °C (depends on versions)

Ambient temperature:

-40...+85 °C (consult temperature class)



AMZ 5450 with flush diaphragms

Smart pressure transmitter with HART communication with flush diaphragms

Pressure ranges: 0.015 bar to 0...600 bar

Accuracy: $\pm 0,075\%$ / $\pm 0,1\%$ / $\pm 0,15\%$

Measurement type: gauge, absolute

Output signals:

4...20 mA HART®

Pressure port – flush diaphragms:

flange flange, tubular

Media temperature:

-60 °C to +300 °C (depends on versions)

Ambient temperature:

-40...+85 °C (consult temperature class)

Compact Ex d Pressure Transmitters



APZ 3420 x

Compact explosion proof / flame proof
pressure transmitter with an
optional discrete (relay) output

Pressure ranges: 0.4 bar to 0...600 bar

Accuracy: ±0.5 / 0.25 / 0.20 / 0.1%

Sensor: silicon piezoresistive

Measurement type: gauge, absolute, vacuum

Output signals:

4...20 mA	0...10 V	RS-485 / Modbus
0...20 mA	0...5 V	HART®
0...5 mA		

Pressure port:

M12x1	G1/2"	1/2"
M12x1.25	G1/4"	1/4"
M12x1.5		
M16x1.5		
M20x1.5		

Media temperature: -40...+125 °C

Ambient temperature: -40...+85 °C, consult temperature class

Optional: graphics display with relay output (PNP)

OUTPUT SIGNALS

Analog: 4...20 mA; 1...5 V
Relay outputs: SPDT or PNP

ACCURACY

Starting at 0.25 %
(TPM method, including linearity, hysteresis and repeatability)

PRESSURE RANGES

0.04 to 600 bar

MEDIUM TEMPERATURE

-40 °C to +135 °C

DIAPHRAGM MATERIAL

- Stainless steel

ASZ 3420 r Page [24](#)

ASZ 3420 p Page [24](#)

- Ceramics Page [24](#)

ASZ 3410 r Page [24](#)

ASZ 3410 p Page [24](#)

SEALS

FKM, NBR, EPDM, VMQ

PRESSURE PORT

- DIN 3852, EN 837-1. NPT
- Open port
- Flush diaphragm
- Hygienic connection

Pressure port

- Stainless steel

ASZ 3420 r Page [24](#)

ASZ 3410 r Page [24](#)

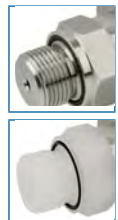
ASZ 3420 p Page [24](#)

ASZ 3410 p Page [24](#)

- PVDF

ASZ 3410 r Page [24](#)

ASZ 3410 p Page [24](#)



Pressure Switch with Coil SPST Relay



ASZ 3420 r

Electronic pressure switch
with SPDT relays

Pressure ranges:
0...0.04 bar to 0...600 bar
Accuracy: $\pm 0.25\%$
Sensor: stainless steel piezoresistive
Measurement type:
gauge, absolute, vacuum
Output signals: 4...20 mA
Pressure port:
M20x1.5 G1/2" 1/4"
 G1/4" 1/2"
Media temperature:
-40...+125 °C
Ambient temperature:
-40...+70 °C



ASZ 3410 r

Electronic pressure switch with SPDT relays for
aggressive/viscous/abrasive media

Pressure ranges:
0...0.6 bar to 0...600 bar
Accuracy: $\pm 0.5\%$
Sensor: silicon piezoresistive
Measurement type:
gauge, absolute, vacuum
Output signals: 4...20 mA
Pressure port:
M20x1.5 G1/2" 1/4"
 G1/4" 1/2"
Media temperature:
-20...+135 °C
Ambient temperature:
-40...+70 °C

Pressure Switch with PNP Relays Output



ASZ 3420 p

Electronic pressure switch with PNP outputs

Pressure ranges: 0.04 bar to 0...600 bar
Accuracy: $\pm 0.25\%$
Sensor: stainless steel piezoresistive
Measurement type: gauge, absolute, vacuum
Output signals: 1...5 V
Pressure port:
M20x1.5 G1/2" 1/2"
 G1/4" 1/4"
Media temperature: -40...+125 °C
Ambient temperature: -40...+85 °C



ASZ 3410 p

Electronic pressure switch with PNP outputs for

Pressure ranges: 0.06 bar to 0...600 bar
Accuracy: $\pm 0.5\%$
Sensor: silicon piezoresistive
Measurement type: gauge, absolute, vacuum
Output signals: 1...5 V
Pressure port:
M20x1.5 G1/2" 1/2"
 G1/4" 1/4"
Media temperature: -20...+125 °C
(depends on seal)
Ambient temperature: -40...+70 °C

ACCURACY

up to 0.1 %

(TPM method, including linearity, hysteresis and repeatability)

CERTIFIED FOR EXPLOSIVE ATMOSPHERE

0Ex ia IIC T6...T4 Ga X
(Intrinsic safety)

CABLE EXTERNAL JACKET

- PVC
- PUR
- FEP

MEDIUM TEMPERATURE

-20 °C to +70 °C

DETACHABLE PROBE

ALZ 3820 Page [27](#)

ALZ 3821 Page [27](#)

ALZ 3822 Page [27](#)

ALZ 3824 Page [27](#)

HOUSING MATERIAL

Stainless steel
(most models)

- PVC

ALZ 3822 Page [27](#)

ALZ 3824 Page [27](#)

ALZ 3742 Page [28](#)

ALZ 2712 Page [28](#)

ALZ 3710 Page [28](#)

- PVDF

ALZ 3742 Page [28](#)

- PP-HT

ALZ 3710 Page [28](#)

LEVEL RANGES

0.4 to 250 mH₂O

HOUSING DIAMETER

Down to 17 mm

OUTPUT SIGNALS

Analog: current, voltage

Digital: HART®, RS-485/Modbus RTU

Pt100 TEMPERATURE SENSOR

(option)

SEALS

- FKM
- EPDM
- NBR

DIAPHRAGM MATERIAL

- Stainless steel
- Ceramics

PRESSURE PORT

Open port (detached cap)

Different connections (option)

BASIC SERIES

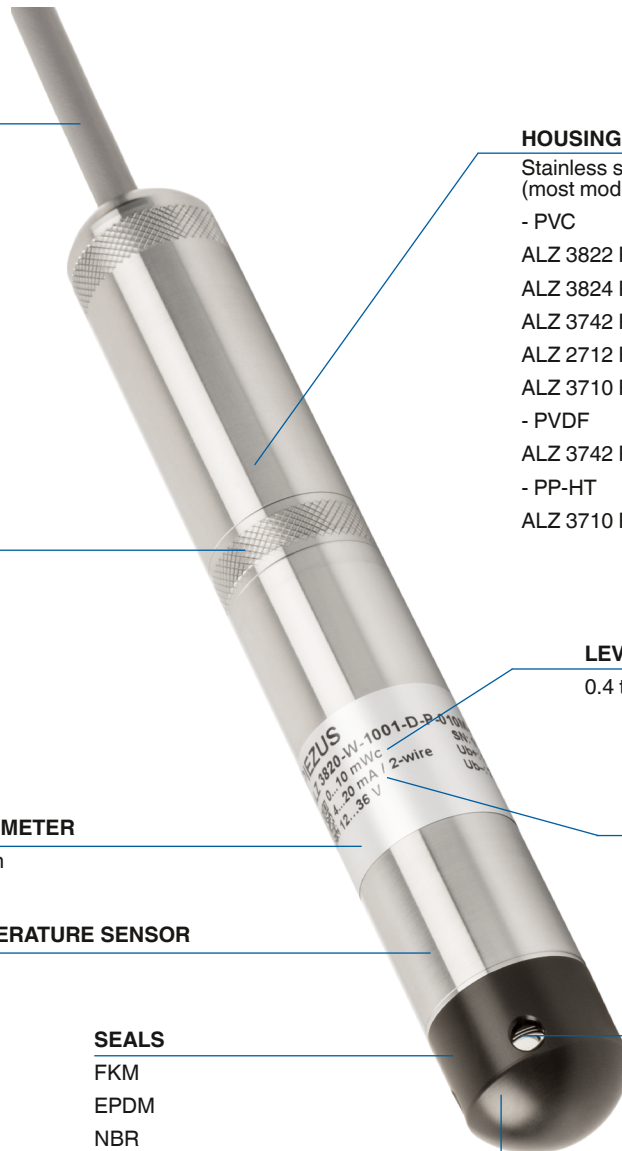
General Industrial Page [27](#)

Precision Versions Page [27](#)

SPECIALIZED SERIES

For Aggressive, Viscous, Abrasive Media Page [28](#)

Slimline Page [28](#)



SELECTION GUIDE

PIEZUS

Model, Page	Accuracy				Level ranges	Sensor			Housing material	Housing diameter, mm	Output signals			Pt100 temperature sensor (option)	Medium temperature		
	%				mH ₂ O	Silicon Piezoresistive	Ceramic Piezoresistive	Ceramic Capacitive			Current	Voltage	Digital		°C	min	max
	0.5	0.25	0.2	0.1													
ALZ 3720 Page 27	•	•	•		0...1 0...250	•			Stainless steel 316 L	27	•	•	•	•	-20	+70	
ALZ 3820 Page 27	•	•	•		0...1 0...250	•			Stainless steel 316 L	27	•	•	•	•	-20	+70	
ALZ 3822 Page 27	•	•			0...1 0...100	•			PVC	35	•	•	•		-20	+50	
ALZ 3721 Page 27			•	•	0...1 0...250	•			Stainless steel 316 L	27	•	•	•	•	-20	+70	
ALZ 3821 Page 27			•	•	0...1 0...250	•			Stainless steel 316 L	27	•		•	•	-20	+70	
ALZ 3824 Page 27				•	0...1 0...100	•			PVC	35	•	•	•		-20	+50	
ALZ 3740 Page 28	•	•			0...4 0...100			•	Stainless steel 316 L / 904 L	40	•		•	•	-20	+70	
ALZ 3742 Page 28	•	•			0...0.4 0...100			•	PVC PVDF	45	•		•	•	-20 -20	+50* +70**	
ALZ 2712 Page 28	•				0...6 0...100		•		PVC PP-HT	27	•	•			0* -20***	+50* +70***	
ALZ 3920 Page 28	•	•	•		0...1 0...250	•			Stainless steel 316 L	21	•			•	-20	+70	
ALZ 3925 Page 28	•	•	•		0...6 0...250	•			Stainless steel 316 L	17	•			•	-20	+70	
ALZ 3710 Page 28	•				0...6 0...100 0...6 0...200****		•		PVC PP-HT Stainless steel	21 (option: 17****)	•				-20* -20*** -25****	+50* +80*** +80****	
Housing material: *PVC **PVDF **PP-HT ***Stainless steel																	

BASIC SERIES

General Industrial



ALZ 3720

Standard submersible pressure transmitter

Pressure ranges: 0...1 mH₂O to 0...250 mH₂O

Accuracy: ±0.5 / 0.25 / 0.2%

Sensor: silicon piezoresistive

Output signals:

4...20 mA	0...10 V	RS-485/Modbus RTU
	0...5 V	HART®
	0.5...4.5 V	

Diameter: Ø27 mm

Media temperature:

-20...+70 °C

Ambient temperature:

-20...+70 °C

Optional: Intrinsic safety (Ex ia)

Optional: Pt100 temperature sensor



ALZ 3820

Submersible pressure transmitter with detachable probe

Pressure ranges: 0...1 mH₂O to 0...250 mH₂O

Accuracy: ±0.5 / 0.25 / 0.2%

Sensor: silicon piezoresistive

Output signals:

4...20 mA	0...10 V	RS-485/Modbus RTU
0...20 mA	0...5 V	HART®
	0.5...4.5 V	

Diameter: Ø27 mm

Media temperature:

-20...+70 °C

Ambient temperature:

-20...+70 °C

Optional: Intrinsic safety (Ex ia)

Optional: Pt100 temperature sensor



ALZ 3822

Submersible pressure transmitter with detachable probe

Pressure ranges: 0...1 mH₂O to 0...100 mH₂O

Accuracy: ±0.5 / 0.25%

Sensor: silicon piezoresistive

Output signals:

0...20 mA	0...5 V	RS-485/Modbus RTU
4...20 mA	0...10 V	HART®
	0.5...4.5 V	

Diameter: Ø35 mm

Media temperature:

-20...+50 °C

Ambient temperature:

-20...+50 °C

Housing material: PVC

Precision Versions



ALZ 3721

Precision submersible pressure transmitter

Pressure ranges: 0...1 mH₂O to 0...250 mH₂O

Accuracy: ±0.1% / 0.2%

Sensor: silicon piezoresistive

Output signals:

4...20 mA	0.5...4.5 V	RS-485/Modbus RTU
		HART®

Diameter: Ø27 mm

Media temperature:

-20...+70 °C

Ambient temperature:

-20...+70 °C

Optional: Intrinsic safety (Ex ia)

Optional: Pt100 temperature sensor



ALZ 3821

Precision submersible pressure transmitter with detachable probe

Pressure ranges: 0...1 mH₂O to 0...250 mH₂O

Accuracy: ±0.1% / 0.2%

Sensor: silicon piezoresistive

Output signals:

0...20 mA	RS-485/Modbus RTU
4...20 mA	HART®

Diameter: Ø27 mm

Media temperature:

-20...+70 °C

Ambient temperature:

-20...+70 °C

Optional: Intrinsic safety (Ex ia)

Optional: Pt100 temperature sensor



ALZ 3824

Precision submersible pressure transmitter with detachable probe

Pressure ranges: 0...1 mH₂O to 0...100 mH₂O

Accuracy: ±0.1%

Sensor: silicon piezoresistive

Output signals:

4...20 mA	0.5...4.5 V	RS-485/Modbus RTU
		HART®

Diameter: Ø35 mm

Media temperature:

-20...+50 °C

Ambient temperature:

-20...+50 °C

Housing material: PVC

SUMBERSIBLE LEVEL PROBES ALZ

PIEZUS

SPECIALIZED SERIES

For Aggressive, Viscous, Abrasive Media



ALZ 3740

Precision submersible pressure transmitter for viscous media

Pressure ranges: 0...0.4 mH₂O to 0...100 mH₂O

Accuracy: ±0.25% / 0.5

Sensor: high precision ceramic capacitive

Output signals:

4...20 mA RS-485/Modbus RTU
HART®

Diameter: Ø40 mm

Media temperature:

-20...+70 °C

Ambient temperature:

-20...+70 °C

Housing material: stainless steel 316L or 904L



ALZ 3742

Precision submersible pressure transmitter for aggressive media

Pressure ranges: 0...0.4 mH₂O to 0...100 mH₂O

Accuracy: ±0.25% / 0.5

Sensor: high precision ceramic capacitive

Output signals:

4...20 mA RS-485/Modbus RTU
HART®

Diameter: Ø45 mm

Media temperature:

(consult housing material)

PVC: -20...+50 °C;

PVDF: -20...+70 °C;

Ambient temperature:

-20...+70 °C

Housing material: PVC; PVDF



ALZ 2712

Submersible pressure transmitter for aggressive media

Pressure ranges: 0...6 mH₂O to 0...100 mH₂O

Accuracy: ±0.5%

Sensor: ceramic piezoresistive

Output signals:

4...20 mA 0...10 V
0...20 mA 0...5 V

Diameter: Ø27 mm

Media temperature:

(consult housing material)

PP-HT: 0...+50 °C;

PVC: -20...+70 °C;

Ambient temperature:

(consult housing material)

PVC: 0...+50 °C;

PP-HT: -20...+70 °C;

Housing material: PVC; PP-HT

Slimline



ALZ 3920

Small diameter submersible pressure transmitter

Pressure ranges: 0...1 mH₂O to 0...250 mH₂O

Accuracy: ±0.5 / 0.25 / 0.2%

Sensor: silicon piezoresistive

Output signals: 4...20 mA

Diameter: Ø21 mm

Media temperature:

-20...+70 °C

Ambient temperature:

-20...+70 °C

Optional: Pt100 temperature sensor

Compact housing



ALZ 3925

Ultra small diameter submersible pressure transmitter

Pressure ranges: 0...6 mH₂O to 0...250 mH₂O

Accuracy: ±0.5 / 0.25 / 0.2%

Sensor: silicon piezoresistive

Output signals: 4...20 mA

Diameter: Ø17 mm

Media temperature:

-20...+70 °C

Ambient temperature:

-20...+70 °C

Optional: Pt100 temperature sensor

Compact housing



ALZ 3710

Small diameter submersible pressure transmitter for aggressive media

Pressure ranges: 0...6 mH₂O to 0...200 mH₂O

Accuracy: ±0.5%

Sensor: ceramic piezoresistive

Output signals: 4...20 mA

Diameter: Ø21 mm

Media temperature:

(consult housing material)

PVC: -20...+50 °C;

PP-HT: -20...+80 °C;

stainless steel: -25...+80 °C

Ambient temperature:

(consult housing material)

PVC: -20...+50 °C;

PP-HT: -20...+80 °C;

stainless steel: -25...+80 °C

Housing material: PVC; PP-HT

Compact housing

STAND-ALONE OPERATION

- Up to 1 year of reliable pressure readings with twice a second update rate in active mode
- Up to 5 year sin on-demand mode

MEDIUM TEMPERATURE

-40 °C to +135 °C

ACCURACY

Starting at 0.25 %
(TPM method, including linearity, hysteresis and repeatability)

HOUSING

330° rotatable

PRESSURE RANGES

0.04 to 600 bar

PRESSURE PORT

- DIN 3852, EN 837-1. NPT
- Open ports
- Flush diaphragm

DISPLAY

- Backlight with auto off feature
- Minimum and maximum values since the last reset
- Select measurement units
- Decimal point position selectable
- Bargraph
- Zero trim and Full scale trim

SEALS

FKM, NBR, EPDM, VMQ

DIAPHRAGM MATERIAL

- Stainless steel
- Ceramics

PLUG-IN DISPLAY

FOR 4-20 mA OUTPUT TRANSMITTERS

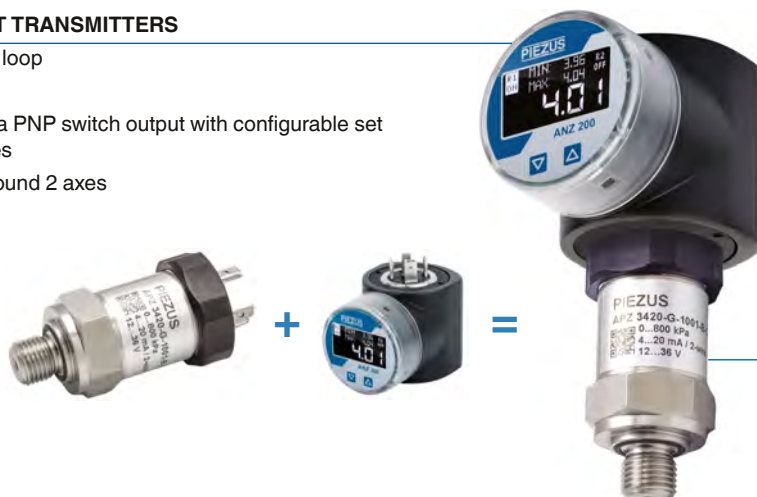
- Powered with 4-20 mA loop
- Bright OLED display
- Can be equipped with a PNP switch output with configurable set points and trigger modes
- 320 / 310° rotatable around 2 axes

3-IN-1 SOLUTION

- Pressure transmitter
- Digital gauge
- PNP switch

PRESSURE TRANSMITTER

with output signal
4...20 mA
and electrical connection
DIN 43650A



Pressure Gauges OCTO Series



OCTO 3420

Pressure gauge

Pressure ranges: 0...0.04 bar to 0...600 bar

Accuracy: $\pm 0.25\%$

Sensor: silicon piezoresistive

Measurement type:

gauge, absolute, vacuum

Pressure port:

M20x1.5 G1/2" 1/4"

 G1/4" 1/2"

Media temperature:

-40...+125 °C

(consult seals)

Ambient temperature:

0...+50 °C



OCTO 3410

Pressure gauge
for aggressive, viscous, abrasive media

Pressure ranges: 0...0.6 bar to 0...600 bar

Accuracy: $\pm 0.5\%$

Sensor: silicon piezoresistive

Measurement type:

gauge, absolute, vacuum

Pressure port:

M20x1.5 G1/2" 1/4"

 G1/4" 1/2"

 G3/4"

Media temperature:

-25...+135 °C

(consult seals)

Ambient temperature:

0...+50 °C

Indicators ANZ Series



ANZ 200

Plug-in display for transmitters
with 4-20 mA output

Output signal: 4...20 mA

Electrical connection: DIN 43650A

Display: graphics OLED 128x64 pixels

Design: rotating display (330°), rotating connector (330°)

Number of switch outputs: 1

Ingress protection: IP65

Functions: display of measurements, peak values, graphs, archives for the last hour, day, month, quarter, decimal point setting, delay time setting



ANZ 300

Indicator with switch outputs

Input signal:

current 4...20 mA or voltage 0...10 V / 0...75 mV

Output signal:

- analog: current 4...20 mA (2-wire);

- discrete: 2 switch outputs (dry contact)

Display: digital, 4-digit (LED, 7-segment),

symbol height: 20 mm (main section) and 7 mm (extra section)

Functions: display of measurements and thresholds, external device control (automated)



BZ 05 / BZ 10

Dry air junction box for submersible transmitters

Built-in signal converter
Pt100 (BZ10)
Wires cross section:
0.2...2.5 mm²
Cable gland: M16x1.5
Material: polyamide
Seal: NBR
Clamped cable diameter: 6...10 mm
Housing material: aluminum
Weight: 560 g max
Ingress protection: IP65



KZ 05

Anchoring clamp for submersible transmitter

Material:
Housing: stainless steel 1.4301
Jaws: polyamide reinforced with glass fiber
Bearing capacity: 250 kg
Weight: 162 g
Dimensions:
174x45x32 mm
Cable diameter:
5.5 - 10.5 mm



DZ 10

Pressure snubber

Housing material: stainless steel
Temperature range: up to +250 °C
Pressure range:
up to 700 bar
Pressure port
G1/2"
M20x1.5
Length: 71 mm



ZCON 100

Zero trim and range selection device

Operating temperature:
+10...+40 °C
Storage temperature:
0...+50 °C
Ingress protection: IP40
Weight with batteries:
250 g max
Batteries
(not included):
4xAA batteries, 1.5 V
Cable length: 0.4 m



PCON 200

Communication cable

Supported devices:
electronic pressure switches
Transmitter interface:
M12x1, 5-pin
PC interface:
USB-A
PC software:
Windows application
Cable length: 50 cm



PCON 300

HART modem

Design: compact housing with USB connector
Power: from computers USB port
Consumption: max 0.5 W
Ingress protection: IP51

Valve Manifold



VZ 10

1 Valve manifold

Media: liquids, steam, gas
(non-corrosive to stainless steel
and seal material)

Medium pressure:

max up to 414 bar

Media temperatures:

-54...+232 °C

Ambient temperature:

-40...+70 °C

Housing material:

stainless steel 316L

Transmitter port:

threaded

M20x1.5

Pressure port

threaded

M20x1.5



VZ 20

2 Valve manifold

Media: liquids, steam, gas
(non-corrosive to stainless steel
and seal material)

Medium pressure:

max up to 414 bar

Media temperatures:

-54...+232 °C

Ambient temperature

-40...+70 °C

Housing material:

stainless steel 316L

Transmitter port:

threaded

M20x1.5

G 1/2"

Pressure port

threaded

M20x1.5

G 1/2"



VZ 30

3 Valve manifold

Media: liquids, steam, gas
(non-corrosive to stainless steel
and seal material)

Medium pressure:

max up to 414 bar

Media temperatures:

-54...+232 °C

Ambient temperature:

-40...+70 °C

Housing material:

stainless steel 316L

Transmitter port: direct mounting to

the differential pressure transmitter's

flanges, pitch - 54 mm

Pressure port: 1/2" NPT internal

thread (pitch - 35 mm) - various

adapters supplied to order



VZ 50

5 Valve manifold

Media: liquids, steam, gas
(non-corrosive to stainless steel
and seal material)

Medium pressure:

max up to 414 bar

Media temperatures: -54...+232 °C

Ambient temperature:

-40...+70 °C

Housing material:

stainless steel 316L

Transmitter port: direct mounting to

the differential pressure transmitter's

flanges, pitch 54...56 mm

Pressure port: 1/2" NPT internal thread

Flush Diaphragms



WF

Flange

Pressure ranges: -1...250 kgf/cm²

Media temperature: -90...+400 °C

Housing material (flange) diaphragms:

Stainless steel 316

Stainless steel 316L

Stainless steel 304L

Stainless steel 310MoLN

Connection standard:

EN1092-1 EN

GOST 33259-2015 G

ANSI B16.5 ANSI

Sealing surface form:

Form L Form J

Form E Form RF

Form B Form RJF

Form F Form RTJ

Form A

Diaphragms material:

Tantalum

Hastelloy (C276)

Hastelloy with PTFE coating

Stainless steel 310MoLN (1.4466)

Other (specify when ordering)



WFT

Flange, tubular

Pressure ranges: -1...250 kgf/cm²

Media temperature: -90...+400 °C

Housing material (flange) diaphragms:

Stainless steel 316

Stainless steel 316L

Stainless steel 304L

Stainless steel 310MoLN

Connection standard:

EN1092-1 EN

GOST 33259-2015 G

ANSI B16.5 ANSI

Sealing surface form:

Form L Form J

Form E Form RF

Form B Form RJF

Form F Form RTJ

Form A

Diaphragms material:

Tantalum

Hastelloy (C276)

Hastelloy with PTFE coating

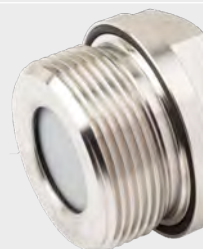
Stainless steel 310MoLN (1.4466)

Other (specify when ordering)

STANDART PRESSURE PORTS*

	GOST	EN	DIN	DIN Exposed Diaphragm Stainless Steel Sensor	DIN Exposed Diaphragm Ceramic Sensor	DIN Open Ports Pressure Port PVDF/PVC	DIN Flush Diaphragm
G 1/2"							
M20x1.5							
G 1/4"							
G 3/4"							
M12x1.5							
M12x1							
M16x1.5							
M10x1							
NPT							
							
		1/8"	1/4"	1/2"			

*Pressure transmitters can be manufactured with connections as per the customer's request.

DIN Flush Diaphragm		DIN Open Ports Pressure Port PVDF/PVC		DIN Exposed Diaphragm Ceramic Sensor		
						G 1"
						G 1 1/2"
Hygienic Connections						
Clamp	Taper Socket with Grooved Union		Threaded			
					S30x2 DIN 513, Exposed Diaphragm	
					G 1", Cone, Exposed Diaphragm, Aseptic Version	
					G 1", Exposed Diaphragm, Aseptic Version AR	
					G 1/2", Peripheral Seal	
					G 1", Peripheral Seal	
					G 1", Flush Diaphragm in Accordance with EHEDG	
Flange						
						DN**

**Pressure transmitters can be manufactured with connections as per the customer's request.

**Pressure transmitters can be manufactured with connections as per the customer's request.

INDUSTRY SOLUTIONS

PIEZUS

Below are the selected devices that are most often used in the industry.



WATER AND WASTEWATER



APZ 3420
Standard industrial
pressure transmitter

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APZ 2422
Economy line dual/
triple-range pressure
transmitter

Page 15



APZ 3410
Industrial pressure
transmitter for
aggressive/viscous/
abrasive media
Page 16



APZ 3240
Precision pressure
transmitter for
aggressive/viscous/
abrasive media
Page 16



ALZ 3720
Standard submersible
pressure transmitter
Page 27



ALZ 3740
Precision submersible
pressure transmitter for
viscous media
Page 28



ALZ 3742
Precision submersible
pressure transmitter for
aggressive media
Page 28



ALZ 3925
Ultra small diameter
submersible pressure
transmitter

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NovaMAG Pro
General industrial /Ex
electromagnetic
flowmeters

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ASZ 3420 p
Electronic pressure
switch with PNP outputs

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ASZ 3420 r
Electronic pressure
switch with SPDT relays

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AMZ 5050
Smart differential
pressure transmitter
with HART
communication
Page 21



AMZ 5450
Smart pressure
transmitter with HART
communication
Page 21



OIL AND GAS (UP-, MID- AND DOWNSTREAM)



AMZ 5050
Smart differential
pressure transmitter
with HART
communication

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AMZ 5450
Smart pressure
transmitter with HART
communication

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**AMZ 5050 with
flush diaphragms**
Smart differential
pressure transmitter
with HART
communication with
flush diaphragms

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**AMZ 5450 with
flush diaphragms**
Smart pressure
transmitter with HART
communication with
flush diaphragms

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APZ 3420 x
Compact explosion
proof /flame proof
pressure transmitter
with an optional discrete
(relay) output

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APZ 3420
Standard industrial
pressure transmitter

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APZ 3421
Precision
pressure transmitter

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APZ 4420
Heavy duty
pressure transmitter

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NovaMAG Pro
General industrial /Ex
electromagnetic
flowmeters

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MACHINE BUILDING



APZ 3420
Standard industrial
pressure transmitter

Page 15



APZ 2422
Economy line dual/
triple-range pressure
transmitter

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POWER GENERATION



APZ 3420
Standard industrial
pressure transmitter

Page 15



APZ 2422
Economy line dual/
triple-range pressure
transmitter

Page 15



APZ 3420 m
Pressure transmitter
with flush diaphragm for
viscous media

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ALZ 3720
Standard submersible
pressure transmitter

Page 27



ALZ 3740
Precision submersible
pressure transmitter for
viscous media

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ALZ 3920
Small diameter
submersible pressure
transmitter

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NovaMAG Pro
General industrial /Ex
electromagnetic
flowmeters

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PIEZOSONIC
Ultrasonic
flowmeter

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AMZ 5050
Smart differential
pressure transmitter
with HART
communication

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AMZ 5450
Smart pressure
transmitter with HART
communication

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MINING AND PROCESSING INDUSTRY



AMZ 5050
Smart differential
pressure transmitter
with HART
communication

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AMZ 5450
Smart pressure
transmitter with HART
communication

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**AMZ 5050 with
flush diaphragms**
Smart differential
pressure transmitter
with HART
communication with
flush diaphragms

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**AMZ 5450 with
flush diaphragms**
Smart pressure
transmitter with HART
communication with
flush diaphragms

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NovaMAG Pro
General industrial /Ex
electromagnetic
flowmeters

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APZ 3420 m
Pressure transmitter
with flush diaphragm for
viscous media

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APZ 3410
Industrial pressure
transmitter for
aggressive/viscous/
abrasive media

Page 16



APZ 3420
Standard industrial
pressure transmitter

Page 15



HVAC & R



APZ 2035
Differential pressure
transmitter for ventilation
and air conditioning

Page 18



APZ 3230
Low pressure
transmitter for non-
aggressive gases

Page 18



APZ 3020
Industrial differential
pressure transmitter

Page 15



APZ 2422
Economy line dual/
triple-range pressure
transmitter

Page 15



AMZ 5050
Smart differential
pressure transmitter
with HART
communication

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MOBILE HYDRAULICS AND ONBOARD WEIGHING SYSTEMS



APZ 2422
Economy line dual/
triple-range pressure
transmitter

Page 15



APZ 3420
Standard industrial
pressure transmitter

Page 15



ASZ 3420 r
Electronic pressure
switch with SPDT relays

Page 24



FERTILIZER PRODUCTION



AMZ 5050
Smart differential
pressure transmitter
with HART
communication

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AMZ 5450
Smart pressure
transmitter with HART
communication

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**AMZ 5050 with
flush diaphragms**
Smart differential
pressure transmitter
with HART
communication with
flush diaphragms

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**AMZ 5450 with
flush diaphragms**
Smart pressure
transmitter with HART
communication with
flush diaphragms

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NovaMAG Pro
General industrial /Ex
electromagnetic
flowmeters

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APZ 3420 m
Pressure transmitter
with flush diaphragm for
viscous media

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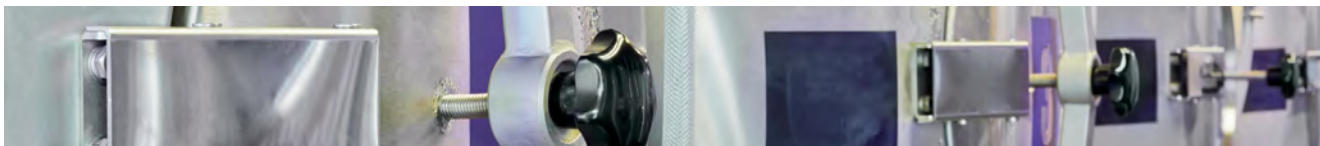
APZ 3410
Industrial pressure
transmitter for
aggressive/viscous/
abrasive media

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APZ 3420
Standard industrial
pressure transmitter

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FOOD, PHARMACEUTICAL, BIOTECHNOLOGY



APZ 3420 s
Sanitary pressure transmitter with flush diaphragm

Page 16



APZ 3420 m
Pressure transmitter with flush diaphragm for viscous media

Page 16



APZ 3410
Industrial pressure transmitter for aggressive/viscous/abrasive media

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APZ 3240
Precision pressure transmitter for aggressive/viscous/abrasive media

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NovaMAG Pro
Hygienic electromagnetic flowmeter

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AMZ 5050
Smart differential pressure transmitter with HART communication

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AMZ 5450
Smart pressure transmitter with HART communication

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PULP AND PAPER INDUSTRY



AMZ 5050
Smart differential pressure transmitter with HART communication

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AMZ 5450
Smart pressure transmitter with HART communication

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AMZ 5050 with flush diaphragms
Smart differential pressure transmitter with HART communication with flush diaphragms

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AMZ 5450 with flush diaphragms
Smart pressure transmitter with HART communication with flush diaphragms

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NovaMAG Pro
General industrial /Ex electromagnetic flowmeters

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APZ 3420 m
Pressure transmitter with flush diaphragm for viscous media

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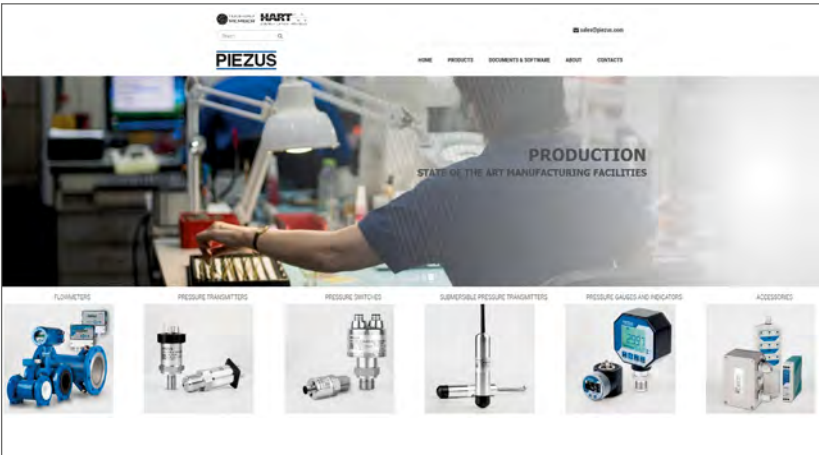
APZ 3410
Industrial pressure transmitter for aggressive/viscous/abrasive media

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HOW TO ORDER

piezus.com - your technical and sales resource center

- Product details, datasheets, certificates
- Product selection and comparison tools
- Configuration tools
- Blog, video and whitepapers
- Feedback forms for support and inquiry
- Devices 3D models



Step 1

Find the right product using filter and comparison tools.

APZ 3420 x

Compact explosion proof / flame proof pressure transmitter with an optional discrete (relay) output

Ranges: 40 mbar up to 600 bar
Basic accuracy: $\pm 0.25\%$
Optional display
Approvals: Ex ia, Ex d

[Add To Compare](#)

[i](#) [🔍](#) [📄](#)

FILTER BY

▼ **PRESSURE TYPE**

☐ differential

☐ gauge

☐ absolute

☐ vacuum (lower range limit from -1 bar)

▼ **PRESSURE RANGE**

➤ **ACCURACY**

➤ **EXPLOSION PROTECTION**

➤ **OUTPUT SIGNAL**

➤ **ELECTRICAL CONNECTIONS**

➤ **PRESSURE PORTS**

➤ **MIN PERMISSIBLE MEDIA TEMP.**

➤ **MAX PERMISSIBLE MEDIA TEMP.**

Step 2

Configure the product and submit an inquiry

Code configurator

APZ 3420 x

Pressure type

-- Please Select --

Units of measurement

-- Please Select --

Pressure range

-- Please Select --

Accuracy

-- Please Select --

Electrical connection

-- Please Select --

Output signal

-- Please Select --

Pressure port

-- Please Select --

Seals

-- Please Select --

Version

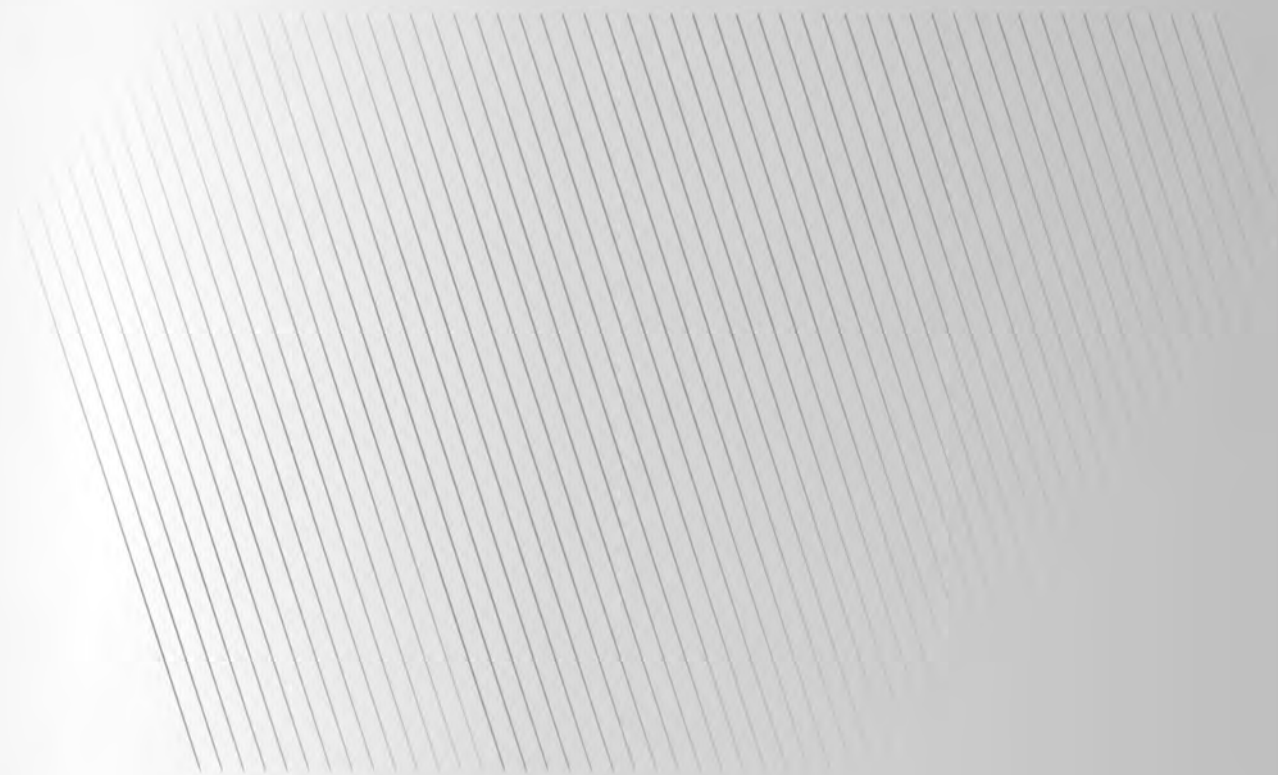
-- Please Select --

Order code:

APZ 3420 x

Step 3

Send a request by e-mail or use feedback form.
You can also always send a request in free form, and our specialists will help you choose the device.



DESIGN
& MANUFACTURING
AT A HIGHEST LEVEL