

**DESCRIPTION**

APZ 2412 economy line pressure transmitters feature up to three pressure ranges selectable by the user via ZCON 100 configurator tool, allowing customers to keep a smaller inventory of spare instruments. Based on a monolithic ceramic measuring cell, highly resistive to abrasive and aggressive* media, APZ 2412 is a good fit for the applications where hydraulic shocks (water hammer) are not present. APZ 2412 features improved accuracy as compared to model APZ 2410, which in turn offers improved overpressure capability.

SPECIFICATIONS

Ranges: 1.6 bar to 400 bar
Number of ranges: up to 3, user-selectable via ZCON 100**
Pressure type: gauge
Accuracy: $\pm 0.5\%$ FS of the highest chosen range
Output: 4...20 mA / 2-wire
Sensor: ceramic thick film
Pressure port: G1/2"; G1/4"; 1/2" NPT; 1/4" NPT; M20x1.5; other.
Media temperature: -25...+135 °C
Ambient temperature: -40...+85 °C

APPLICATIONS

Pneumatics

Hydraulics***

Transportation

Water level monitoring in tanks

* Please consult the manufacturer for particular media compatibility

** ZCON 100 configurator is sold separately and provides ZERO TRIM and RANGE SWITCHING features

*** Applications with absence of excessive hydraulic shocks

Appearance, mounting kit contents and/or specifications are subject to change without prior notice. We are constantly working on further improvement of our products.
Delivery is subject to standard terms of delivery.
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TECHNICAL SPECIFICATIONS

MEASURING RANGES

| Pressure range, bar* | Overpressure, bar | Burst pressure, bar | Pressure range, bar | Overpressure, bar | Burst pressure, bar |
|----------------------|-------------------|---------------------|---------------------|-------------------|---------------------|
| 0...1.6 | 4.0 | 5.0 | 0...40 | 100 | 120 |
| 0...2.5 | 4.0 | 5.0 | 0...60 | 100 | 250 |
| 0...4.0 | 10 | 12 | 0...100 | 200 | 500 |
| 0...6.0 | 10 | 25 | 0...160 | 400 | 880 |
| 0...10 | 20 | 50 | 0...250 | 800 | 880 |
| 0...16 | 40 | 50 | 0...400 | 800 | 880 |
| 0...25 | 40 | 120 | | | |

* Transmitter can be calibrated on two or three adjacent (user-selectable via ZCON 100 configurator) pressure ranges.

PERFORMANCE

| | |
|--|-------------------------|
| Accuracy, % of span* | ≤ ±0.5 |
| Temperature effect (% of span / 10 °C) | ≤ ±0.3 |
| Compensated range | -25...+85 °C |
| Power supply effect | ≤ ±0.05% of span / 10 V |
| Load resistance effect | ≤ ±0.05% of span / kOhm |
| Long-term stability | ≤ ±0.3% of span / year |
| Response time (10...90%) | ≤ 1 ms |

* Accuracy includes non-linearity, hysteresis and non-repeatability.

OPERATING CONDITIONS

| | |
|--------------------------------------|--------------------------------|
| Medium temperature (depends on seal) | -25...+135 °C |
| Ambient temperature | -40...+85 °C |
| Storage temperature | -40...+85 °C |
| Vibration resistance | 10 g RMS, 20–2000 Hz |
| Shock resistance | 100 g / 11 ms |
| Service life | > 100 x 10 ⁶ cycles |

MECHANICAL SPECIFICATIONS

| | | | |
|------------------------------|---|----------------------|-----------------------|
| Pressure port material | stainless steel 304 (1.4301) | | |
| Housing material | stainless steel 304 (1.4301) | | |
| Seal | FKM (-25...+135 °C) | | |
| Diaphragm | ceramics Al ₂ O ₃ 96% | | |
| Wetted parts | Diaphragm, pressure port, seal | | |
| Pressure port | M20x1.5 EN 837; G1/2" EN 837; G1/4" DIN 3852; G1/4" EN 837; 1/4" NPT; 1/2" NPT | | |
| Electrical connection | Ingress protection | Cross section | Cable diameter |
| DIN 43650A (4 pin) | IP65 | 1.5 mm ² | 6...8 mm |

ELECTRICAL SPECIFICATIONS

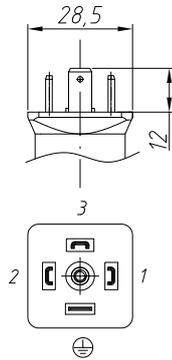
| Output signal | Power supply, U _s | Load resistance, R | Power consumption |
|--------------------|------------------------------|--|-------------------|
| 4...20 mA / 2-wire | 8...32 V | ≤ [(U _s - 8 V) / 0.02 A] Ohm* | < 26 mA |

ELECTRICAL CONNECTIONS / PIN ASSIGNMENT

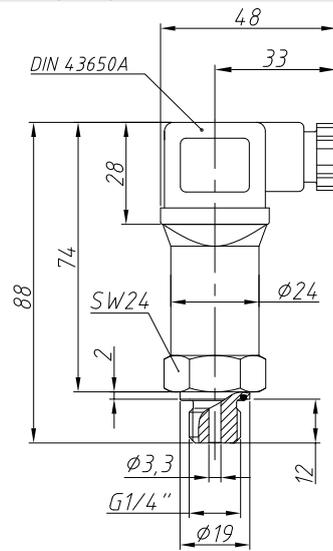
| Circuits | DIN 43650A |
|-------------|-----------------------|
| power + | 1 |
| power - | 2 |
| calibration | 3 (left disconnected) |
| shield | GND |

ELECTRICAL CONNECTIONS, DIMENSIONS (mm)

DIN 43650A



DIMENSIONS (mm)



PRESSURE PORTS, DIMENSIONS (mm)

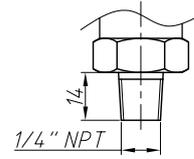
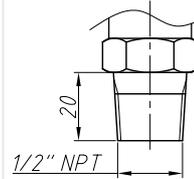
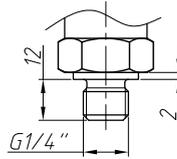
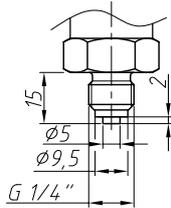
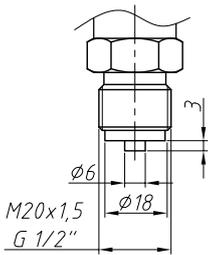
M20x1.5; G1/2" EN 837

G1/4" EN 837

G1/4" DIN 3852

1/2" NPT

1/4" NPT



| ORDERING CODE | | | | | | | | | | |
|--------------------------------|-----------------|-------------------------------|-----------------|--------------|-----------------|-------------------------------|-----|------|----|-----|
| APZ 2412 | | -X | -X | -XXXX | -X | -XX | -X | -XXX | -X | -XX |
| MEASUREMENT TYPE | | Gauge | G | | | | | | | |
| UNIT OF MEASUREMENT | | bar | B | | | | | | | |
| | | MPa | M | | | | | | | |
| | | mH ₂ O | W | | | | | | | |
| | | Other (specify when ordering) | X | | | | | | | |
| UPPER RANGE LIMIT (URL) | | | | | | | | | | |
| bar | | mH ₂ O | | MPa | | | | | | |
| 1.6 | 1600 | 16 | 1600 | 0.16 | 0160 | | | | | |
| 2.5 | 2500 | 25 | 2500 | 0.25 | 0250 | | | | | |
| 4.0 | 4000 | 40 | 4000 | 0.40 | 0400 | | | | | |
| 6.0 | 6000 | 600 | 6000 | 0.60 | 0600 | | | | | |
| 10 | 1001 | 100 | 1001 | 1.0 | 1000 | | | | | |
| 16 | 1601 | 160 | 1601 | 1.6 | 1600 | | | | | |
| 25 | 2501 | 250 | 2501 | 2.5 | 2500 | | | | | |
| 40 | 4001 | 400 | 4001 | 4.0 | 4000 | | | | | |
| 60 | 6001 | | 6001 | 6.0 | 6000 | | | | | |
| 100 | 1002 | | 1002 | 10 | 1001 | | | | | |
| 160 | 1602 | | 1602 | 16 | 1601 | | | | | |
| 250 | 2502 | | 2502 | 25 | 2501 | | | | | |
| 400 | 4002 | | 4002 | 40 | 4001 | | | | | |
| Other | XXXX | Other | XXXX | Other | XXXX | | | | | |
| Dual range | XXXX-XXXX* | Dual range | XXXX-XXXX* | Dual range | XXXX-XXXX* | | | | | |
| Triple range | XXXX-XXXX-XXXX* | Triple range | XXXX-XXXX-XXXX* | Triple range | XXXX-XXXX-XXXX* | | | | | |
| ACCURACY | | | | | | | | | | |
| | | | | | | 0.5% (standard) | D | | | |
| | | | | | | Other (specify when ordering) | X | | | |
| ELECTRICAL CONNECTION | | | | | | | | | | |
| | | | | | | DIN 43650A | 10 | | | |
| | | | | | | Other (specify when ordering) | XX | | | |
| OUTPUT SIGNAL | | | | | | | | | | |
| | | | | | | 4...20 mA / 2-wire | A | | | |
| | | | | | | Other (specify when ordering) | X | | | |
| PRESSURE PORT | | | | | | | | | | |
| | | | | | | M20x1.5 EN 837 | 201 | | | |
| | | | | | | G1/2" EN 837 | 721 | | | |
| | | | | | | G1/4" DIN 3852 | 740 | | | |
| | | | | | | G1/4" EN 837 | 741 | | | |
| | | | | | | 1/4" NPT | 840 | | | |
| | | | | | | Other (specify when ordering) | XXX | | | |

ORDERING CODE (CONTINUED)

| | | | | | | | | | | | |
|----------------|-----------------|-----------|-----------|--------------|-----------|------------|-----------|-------------|-------------------------------|--|----|
| | APZ 2412 | -X | -X | -XXXX | -X | -XX | -X | -XXX | -X | -XX | |
| SEALS | | | | | | | | | FKM (-25...+135 °C) | F | |
| | | | | | | | | | Other (specify when ordering) | X | |
| VERSION | | | | | | | | | | Standard | 00 |
| | | | | | | | | | | Zero trim (requires ZCON 100 configurator) | 01 |
| | | | | | | | | | | Dual range, zero trim (requires ZCON 100 configurator) | 02 |
| | | | | | | | | | | Triple range, zero trim (requires ZCON 100 configurator) | 03 |
| | | | | | | | | | | Other (specify when ordering) | XX |

* Ranges for triple range and dual-range version can be chosen from adjacent single range options. The widest range comes first, followed by the next and the smallest one. For example, the range code for 6, 4 and 2.5 bar is 6000-4000-2500.

Example: APZ 2412-G-B-6000-4000-2500-D-10-A-201-F-03

ACCESSORIES

| | | | | |
|---|---|---|---|--|
|  |  |  |  | |
| DZ 10 Pressure snubber | ZCON 100 Zero trim and range selection device | ANZ 200 Plug-in display for transmitters with 4-20 mA output | PZ 1024 Power supply unit | |