

PMX420 Series

Universal, four-digit, current/voltage display

The current/voltage displays of the PMX420 Series are available as a pure PMX420 display unit or optionally with analogue outputs/four alarm outputs.

The basic model is suitable for displaying all normalized current or voltage signals. The input signals are electrically isolated, smoothed and scaled. An integrated power supply can be used for supplying external sensors and input devices.

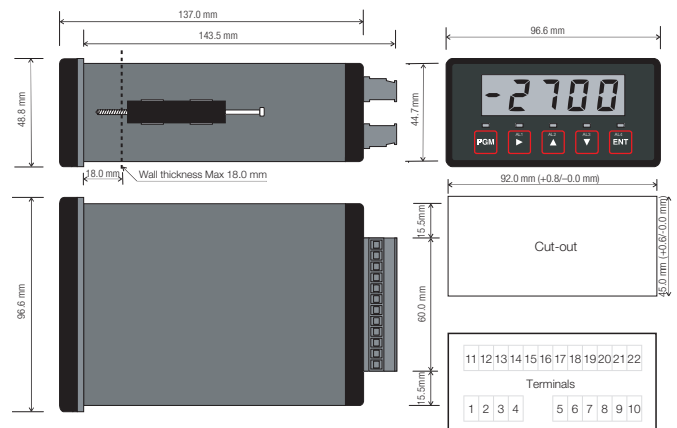
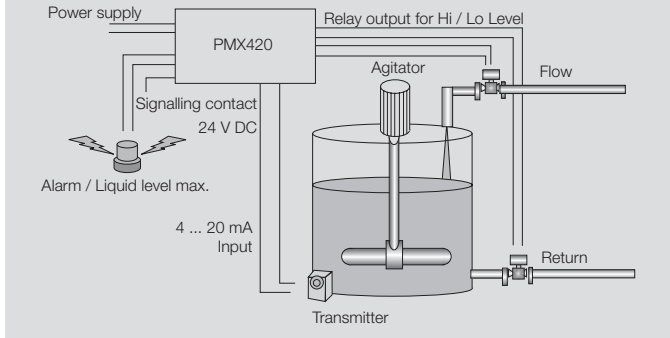
The PMX420Plus adds four alarm channels (each with its own status indicator and relay contact outputs) and a fully isolated analogue current/voltage output.

Device functions can be configured, specifically for the application, using the integrated keypad on the front panel. There are also several other handy features like maximum and minimum value recall, integrated linearization, an acoustic alarm, a group alarm function, and the option for manual or automatic alarm reset.

Technical features:

- Four-digit digital LED display
- Suitable for current and voltage signals
- Bipolar inputs
- Integrated square root function
- Retrieval of min. and max. values
- Integral power supply for active sensors
- DC power supply
- Complete electrical isolation
- Four alarm channels and an analogue current/voltage output (PMX420Plus)
- LED alarm status indication
- DIN-standard 1/8 front panel with IP65 protection
- Decimal point can be adjusted to any position
- Configurable via front-panel keypad

Typical application of PMX 420 Plus



Common technical data

| | |
|---------------------------------------------|------------------------------------------------|
| Display | |
| Type | 4 Digits, red LED, 14.2 mm |
| Display value | Percent or real-value displayed |
| Display range | 9999 to +9999 |
| Status indicator | Alarm channel 1-4; status LED |
| Input | |
| Type | Current or voltage input is programmable |
| Input current limits | -22...+22 mA (preset for 4...20 mA) |
| Input voltage limits | -11...+11 V |
| Input resistance | 25 Ω (current input) or 1.5 MΩ (voltage input) |
| Resolution | 4 µA / 2 mV |
| Sensor current | 4...20 mA |
| Feed voltage | 24 V DC ±1.5 V DC (to 25 mA) |
| Attenuation factor | 0...99; programmable digital filter |
| Functions | |
| Values | Linear or √ |
| General information | |
| Supply voltage | 18...50 V DC, other voltages on request |
| Power input | 8.5 W at 24 V DC |
| Accuracy | Typically ± 0.1 % of signal range |
| Linearity | < 0.05 % |
| Repeat accuracy | ±0.02 of signal range |
| Humidity | 0...90 % (no condensation) |
| Temperature coefficient | < 0.02 % / °C at 100 % |
| Long-term drift | 0.1 % / 10,000 h |
| Cut-off frequency (-3 dB) | 5 Hz |
| Step response time | 300 ms (10...90 %) |
| Impulse withstand voltage | 4 kV (1.2/50 µs) |
| Isolation voltage | 2 kV between ports |
| Data backup | > 10 years without power supply |
| Operating temperature / storage temperature | 0 °C...60 °C / -25 °C...+70 °C |
| EMC standard | DIN EN 61326 |
| Approvals | CE, cULus |

| | | | |
|-----------------|---|------------------------|--------------------------------------|
| Terminal | | Signal | |
| 1 | - | Supply voltage | |
| 2 | + | High level | |
| 3 | + | Supply voltage | |
| 4 | - | Low level | |
| 5 | | Signal + sensor supply | Inputs |
| 6 | | Configuration | |
| 7 | | Signal + voltage input | |
| 8 | | Signal + current input | |
| 9 | | Signal 0 V | |
| 10 | | Not used | |
| 11 | | NC contact | Alarm channel 1 (only PMX420Plus) |
| 12 | | Common | |
| 13 | | NO contacts | Alarm channel 2 (only PMX420Plus) |
| 14 | | NC contact | |
| 15 | | Common | Alarm channel 3 (only PMX420Plus) |
| 16 | | NO contacts | |
| 17 | | NO contacts | Alarm channel 4 (only PMX420Plus) |
| 18 | | Common | |
| 19 | | NO contacts | Analogue Output (only PMX420Plus) |
| 20 | | Common | |
| 21 | | Signal + | |
| 22 | | Signal - | |

Connections

| | | | |
|-----------------|---|------------------------|--------------------------------------|
| Terminal | | Signal | |
| 1 | - | Supply voltage | |
| 2 | + | High level | |
| 3 | + | Supply voltage | |
| 4 | - | Low level | |
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| 18 | | Common | |
| 19 | | NO contacts | Analogue Output (only PMX420Plus) |
| 20 | | Common | |
| 21 | | Signal + | |
| 22 | | Signal - | |

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MANN SERIES – Indicators and configurable displays for analogue signals

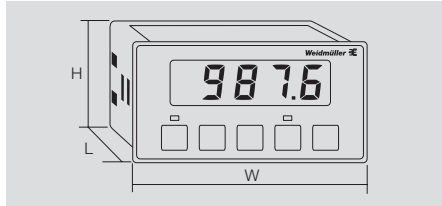
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Universal, 4-digit current/voltage display

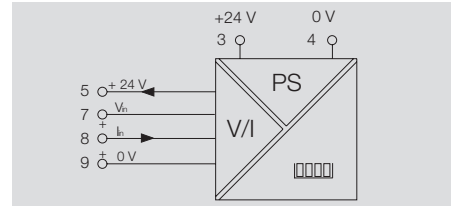
- Display instrument for control panel installation
- 1/8 DIN standard front
- IP65 front protection
- Pluggable connection terminals

PMX420

Display



- Four-digit scalable display
- Simple menu-driven configuration
- Single channel input



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Technical data

| | |
|-------------------------------------|-----------------------------------|
| Output | |
| Type | Not available |
| Scaling | |
| Output current | |
| Output voltage | |
| Transmit function | |
| Load resistance | |
| Residual ripple | |
| Alarm | |
| Type | Not available |
| Number of channels | |
| Type of contact | |
| Specifications | |
| Isolation | |
| Suppression of leakage current | |
| Housing specifications | |
| Clamping range (nom. / min. / max.) | mm ² 1.5 / 0.5 / 2.5 |
| Connection type / Mounting rail | Screw connection / panel assembly |
| Housing type / Weight | Plastic housing / 480 g |
| Length x width x height | 137 x 96.6 x 48.8 mm |
| Note | |

Connections

| Terminal | Signal | |
|----------|------------------------|----------------|
| 1 | - | Supply voltage |
| 2 | + | High level |
| 3 | + | Supply voltage |
| 4 | - | Low level |
| 5 | Signal + sensor supply | Inputs |
| 6 | Configuration | |
| 7 | Signal + voltage input | |
| 8 | Signal + current input | |
| 9 | Signal 0 V | |
| 10 | Not used | |

Ordering data

| Type | |
|-----------------------------|--|
| Voltage input/Current input | |
| Special adjustment | |
| Note | |

| Type | Qty. | Order No. |
|-------------------------------------------------------------|------|------------|
| PMX420 | 1 | 7940018956 |
| PMX420 Variabel | 1 | 8945030000 |
| Additional input/output range versions available on request | | |

Accessories

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|-------------|
| Note |
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