

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.

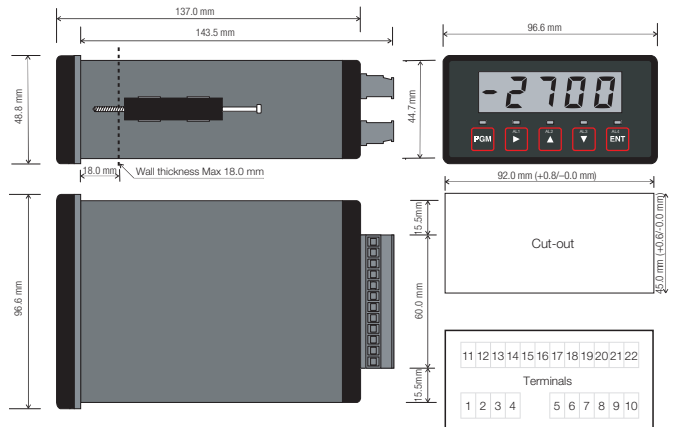
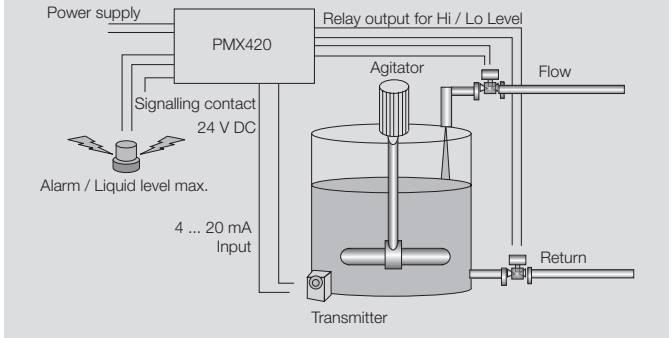
The PMX420Plus adds four alarm channels (each with its own status indicator and relay contact outputs) and a fully isolated analogue current/voltage output.

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

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	
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 -	

