

PTX800 Series

Panel-mounted totaliser/counter/rate monitor

The configurable monitors of the PTX800 Series are available in two designs:

- PTX800A for analogue current/voltage flow quantity measurements
- PTX800D with digital inputs (NAMUR, NPN/PNP sensors, TTL, etc)

The eight-digit LED rate/total display can be changed via a button on the front of the unit. Both versions make use of output relays to close valves when the "total" setpoint is reached. They also have electrically-isolated analogue outputs for re-transmission.

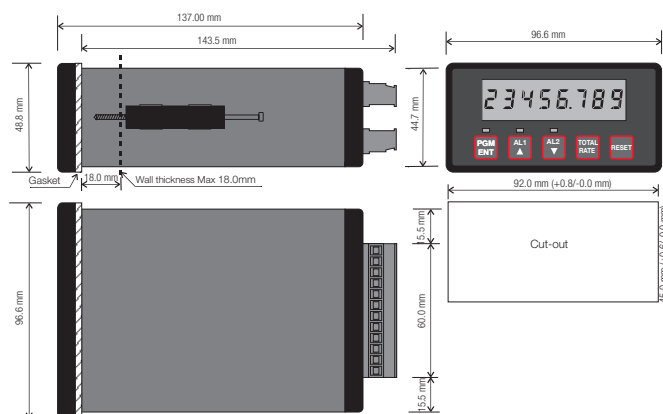
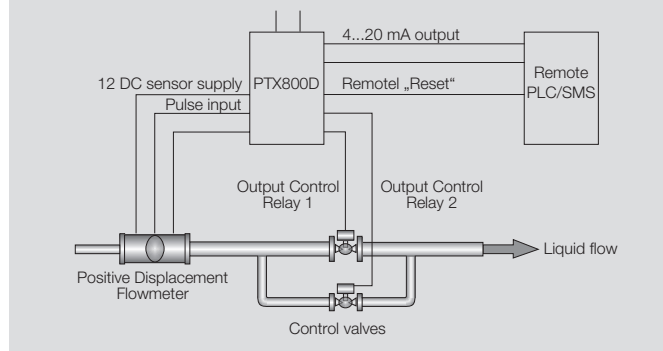
The display can be globally scaled based on the flow quantity per second, minute, hour or day. The flow-quantity counter can be multiplied by factors of 0.001, 0.01, 0.1, 1, 10, 100 oder 1000. This allows for best use of the display.

The PTX800A counter processes standardized analogue current and voltage signals. Linearization and fittering functions are available for processing measurement signals. In addition, the counter has a 24 V DC power supply for loop-powered sensors.

The PTX800D can be connected on the input side to all standard initiators (NPN/PNP/Namur) and with other current/voltage transmitters. The monitor will accept any periodic signal type and can total the input pulses into a "total" display.

It can also calculate the resulting flow rate. External proximity switches can be supplied with 12 V DC directly from the PTX800D.

Typical application of PTX800



Technical Features

- Display of the flow quantity/rate
- Easily-readable eight-digit LED display
- Up to two outputs for alarm monitoring or control
- Optional analogue output
- Pulse output
- Reset function can be controlled locally or remotely, for fill-quantity monitoring (batching)
- The most recent measured value is stored in case of a power outage
- DC power supply
- LED display for values outside of range
- Complete electrical isolation
- DIN-standard 1/8 front panel with IP65 protection
- Integrated power supply for initiators
- Changing the device configuration is possible without performing a new calibration
- No internal adjustments needed

Common technical data

Display	
Type	Eight digits, red LED, 7.2 mm
Brightness	Adjustable to 14 levels of brightness
Display value	Percent or real-value displayed
Partial display	Display from 0 to 50,000 (five digits)
Time range, partial display	per sec., min., hour (PT800A also per day)
Total display	Display from 0 to 99,999,999 (8 digits)
Decimal point	Adjustable separately for partial and total display
Status indicator	Alarm 1/2; Status LED
Pulse output	
Type	Transistor output
Display value	One pulse per signal jump of the total display
Pulse duration	32 ms
Cut-off time	Minimum of 32 ms
Analogue output (optional)	
Type	Current or voltage output configurable with jumper
Display range	Dependent on the calibration (within 0 to 22 mA, or 0 to 11 V)
Resolution	1,6 μ A or 0,8 mV / Bit
Load resistance, current	$\leq 900 \Omega$
Load resistance, voltage	$\geq 1 \text{ k}\Omega$
Residual ripple	$< 20 \text{ mV}_{\text{ss}}$
Alarm output (optional)	
Type	2 relay contacts (CO)
Switching current	3 A at 240 V AC, 5 A at 24 V DC / 110 V AC (resistive load)
Isolation	1.5 kV between ports
Input reset	
Type	Normally open
Function	Complete reset (display/alarm)
General information	
Supply voltage	24 V DC $\pm 10 \%$
Power consumption	6 W at 24 V DC
Accuracy	$< 0,05 \%$
Linearity	$< 0,05 \%$
Repeat accuracy	$\pm 0,02 \%$ of signal range
Humidity	0...90 % (no condensation)
Temperature coefficient	$< 0,02 \%$ of signal range
Long-term drift	0,1 % / 10,000 h
Impulse withstand voltage	4 kV (1.2/50 μ s)
Data backup	≥ 100 years
Operating temperature / storage temperature	0 °C...60 °C / -25 °C...70 °C

Connections

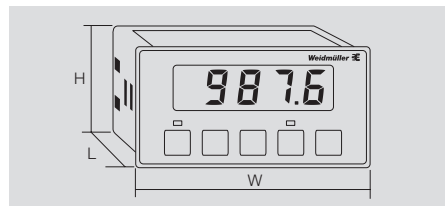
Terminal	Signal	
1	L -	Supply voltage.
2	L +	
3	Signal +	Analogue output (optional)
4	Signal -	
5	0 V	Pulse output
6	Pulse	
7	Optional, depending on type	Inputs
8		
9		
10		
11		
12		
13	NO contacts	Alarm channel 1 (optional)
14	Common	
15	NC contact	Alarm channel 2 (optional)
16	NO contacts	
17	Common	
18	NC contact	

MANN SERIES – Counters/Totalisers

PTX800 Series

Counter/totalisers/rate monitor

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

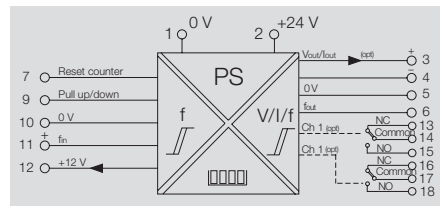


PTX800D

Digital pulse frequency input



- Scalable pulse and frequency counters for digital input signals
- Suitable for all standard input initiators
- Power supply for external pulse generator



Technical data

Input	Type
Input signal	
Sensor supply	
Input voltage	
Total display, display range	
Analogue output (optional)	Type
Input reset	Min. pulse duration
Pulse output	Max. pulse rate
General information	Functions
EMC standard	
Approvals	

Digital pulse (NAMUR, PNP/NPN, TTL logic, opto, voltage pulses, no-voltage contacts)
0...10 kHz
12 V DC (up to 25 mA)
Programmable from 50 mV...250 V
Programmable (≤ 10 pulses per signal jump)
Current or voltage output configurable with jumper
100 ms
16 / s
/AO: with analogue output
/RO: with two alarm channels
DIN EN 61326
CE, cULus

Housing specifications	
Clamping range (nom. / min. / max.)	mm ²
Connection type / Mounting rail	
Housing type / Weight	
Length x width x height	
Note	

1.5 / 0.5 / 2.5
Screw connection / panel assembly
Plastic housing / 500 g
137 x 96.6 x 48.8 mm
Additional input/output range versions available on request

Ordering data

Typ	
without analogue/alarm output	
with analogue/alarm output	
Special adjustment	
Note	

Type	Qty	Order No.
PTX800D	1	794001133
PTX800D RO/AO	1	7940012323
PTX800 Variabel	1	8945040000

Connections

Terminal	Signal	
7	Reset by connection to class 12	Reset
8	Setup configuration by connection to class 12	Configuration
9	Pull Up/Down	Inputs
10	Signal -/0 V	
11	Signal +	
12	12 V DC	

