



PULSMATE™ Industrial Electronic Register

The New Wave in Batching Control

Simultaneous tracking of both rate and total from Type MP and magnetic drive Type S flowmeters.



The Neptune® PULSMATE™ Electronic Register enhances the flow management capabilities of Type MP and magnetic drive Type S flowmeters. This battery or externally powered register displays rate and total simultaneously and includes a scalable pulse output for interfacing with supervisory control. A dual totalizer version offers locally resettable and cumulative counters. The PULSMATE combines the reliability and convenience of a local electronic display with sophisticated features usually found in flow computers.

Features and benefits

- **Electronic calibration**
 - Faster set-up
 - No need to replace change gears
- **Simultaneous rate and total displays**
 - Track both flow rate and cumulative volume

- Optional alarms signal when flow rate is not within upper or lower set point limits
- Optional 4–20 mA analog output
- **Selectable totalizer models**
 - Resettable for measuring repetitive processes
 - Non-resettable (cumulative) for tracking flow over extended time
- **Scalable pulse output**
 - Enables remote totalization
 - Monitor process anytime, anywhere
- **Retrofittable to existing flowmeters**
 - Enhanced capabilities plus lower life cycle cost than with mechanical registration
 - Compatible with Type MP and magnetic drive Type S
 - No mechanical gear trains
- **Durable housing**
 - Isoplast® enclosure combines best properties of plastic and metal
 - Stable, tough and chemically inert

PULSMATE Specifications

Housing

Isoplast

Temperature

Operating: -4°F (-20°C) to 158°F (70°C)

Extended: -22°F (-30°C) to 158°F (70°C)

Humidity: 0–90%, noncondensing

Internal power supply

Battery: One “C” Size lithium battery (supplied)

External: 8.5–30 VDC, current less than 5 mA

Analog loop: 8.5–30 VDC, plus one “C” Size lithium battery (supplied) to power the display

Protection: Reverse polarity protection on the analog loop

Battery life expectancy:

Idle—2.5 yr

2 hr/day—2.25 yr

8 hr/day—1.75 yr

24 hr/day—1 yr

If externally powered—10 yr

External power supply

Dedicated 24V external power supply available

Hazardous area approvals

UL intrinsic safety approval pending

Operator interface

Menu-driven programming, four-key keypad

Local display

Three models are standard. (Low battery warning is standard to all models.)

RP: Rate and total

RA: Rate, total and alarm

DP: Dual totalizers (resettable or cumulative)

(Over)



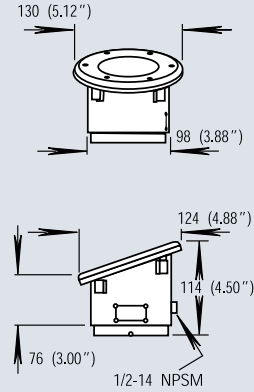
THE RIGHT ONE!



The PULSMATE Electronic Register applies to Neptune Type MP and Type S magnetic drive flowmeters.



PULSMATE Industrial Electronic Register Dimensions, mm (in.)



Rate Display Attributes

Model	Digits	Descriptors	Min. Frequency Input, HZ	Alarm
RP	4.5	Sec, Min, Hr	0.125-10	NA
RA	4.5	Sec, Min, HR	0.125-10	Yes

Totalizer Display Attributes

Model	Resettable Digits	Cumulative Digits	Descriptors
RP	8	NA	Gal, Litres, ft ³ , M ³
RA	8	NA	Gal, Litres, ft ³ , M ³
DP	5	8	Gal, Litres, ft ³ , M ³

PULSMATE Industrial Electronic Register Ordering Information

Model Number						
X	X	X	X	X	X	Description
Display						
R						Rate/Total
D						Dual Total*
Output*						
P						Pulse (Standard on RP and DP)
A*						Alarm*
Power						
E						Battery/External
L						Loop
Display Temperature						
S						Standard
X						Extended
				0	0	(Not Used)

*An alarm output is only available when the selected display parameter is R (Rate/Total). Therefore, DAXXOO is not a valid model number.

(Continued from front side)

Optional analog output

Type: 4–20 mA, following rate display, loop-powered
Accuracy: 0.15% at 20°C, full scale

Pulse output (standard on RP and DP models)

The pulse output advances with the least significant digit of the totalizer.
Type: Opto-isolated open collector transistor
Max. voltage (pulse off): 30 VDC
Current (pulse on): 5 mA at 0.9 V drop, 0.1 mA at 0.7 V drop
Pulse duration: 65 msec
Pulse output dividers: User selectable—1, 10, 100 or off. The “off” setting maximizes battery life.

Alarm output (RA model)

The alarm output activates when the rate is less than the low alarm set point or greater than the high alarm set point. External diode clamps are required when driving inductive loads.

Relay type: Opto-isolated photo MOS, non-latching
Max. voltage (alarm off): 100 VDC
Current (alarm on): 100 mA max. on resistance less than 30 ohms

Resettable totalizer

Activated manually by external magnet

K-factor

Range: 0.001–59999

Decimal point locations: XX.XXX–XXXXX

Application

Type MP flowmeters: 1/2", 1", 2", and 3"
Type S flowmeters: 1-1/2" and 2" magnetic drive

ISO 9001 : 2000

