



LMI[®]

an Accudyne Industries brand



Remote Flowmeter-Pulsers

Information Sheet

Manual No: 54872

Rev.: A

Rev. Date: 04/2016



LMI[®]

an Accudyne Industries brand

REMOTE FLOWMETER-PULSER



Variable flow rates require a flow proportional dosing system. LMI's Remote Flowmeter-Pulsar provides a precise flow proportional dosing system that is simple to install and easy to maintain.

Accessibility

LMI's Remote Flowmeter-Pulsars allow you to install the Flowmeter in your pipeline and to wall mount the Programmable Divider up to 100 ft (30 m) away, where it provides easy user access.

Simple System Requirements

For automatic flow proportioning, all that is required is the LMI Remote Flowmeter-Pulsar and an LMI dosing pump sized to fit the additive flow rate. No timers, relays, or control valves are required.

Rugged Construction

The Flowmeter body is constructed of a lead-free brass alloy. A gear train drives the register totalizer dials. Dry top multi-jet design tolerates low quality water.

Versatile Features

- Line sizes from 3/4" to 2"
- Flow rates from 0.22 to 132 GPM
- Line pressures to 150psi (10.3 Bar)
- Water temperatures from 32°F to 105°F (0°C to 40°C)
- Lead-Free Flowmeter
Meets AWWA Class -708 Multi-Jet Meter accuracy specification.



REMOTE FLOWMETER-PULSER

Simple Operation

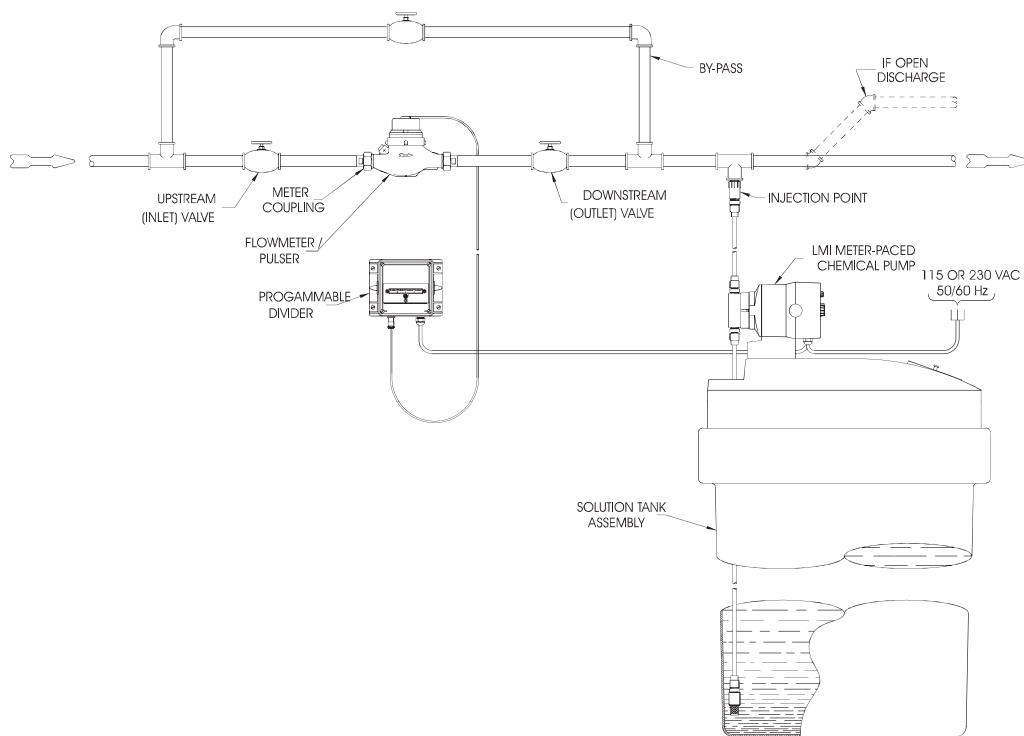
As liquid flows through the Flowmeter, a magnetic pickup external to the flow stream senses each rotation of the register dials. These pulses are transmitted to the Programmable Divider. The divider accumulates the number of pulses and triggers the LMI dosing pump to stroke once for the set number of pulses.

The Programmable Divider permits you to set the ratio of pulses to pump strokes at any ratio between 1:1 and 9999:1. Combined with the 10 to 1 adjustability of the LMI dosing pump's stroke length and alterations to the solution concentration, the additive injection ratios can exceed five hundred million to one. Consult the RFP Instruction Manual for further details on setting the divider.

Simple, Rugged Design

The RFP Flowmeter uses the internationally-accepted multi-jet principle. A gear train drives the register totalizer dials. This isolation eliminates any possibility of contamination. The dry top register is dustproof as well as water proof and is easy to read.

Typical Installation



REMOTE FLOWMETER-PULSER



I. Select Your Flowmeter

- Determine the required pipe size or mounting flange.
- Determine the maximum and minimum flowrate of the flowmeter.
- Select your flowmeter model from the chart below:

Flowmeter Only P/N	Flowmeter Model with PD-4	Pipe Size	Flow-GPM*		Flow-LPM*		Primary Pulses per U.S. Gallon	Primary Pulse per Liter
			MIN	MAX	MIN	MAX		
59235	RFP-075	3/4"	0.22	22	.83	83	40	10.6
59236	RFP-100	1"	0.44	52	1.7	196	4	1.1
59237	RFP-150	1-1/2"	0.88	88	3.3	333	4	1.1
59238	RFP-200	2"	1.98	132	7.5	499	4	1.1

2. Select Your Metering Pump

- A metering pump with an external pulse input must be selected. LMI Series AA7, B7, or C7 type pump are most commonly used and these pumps are equipped with an external 4-pin input jack for use with RFP flowmeters. Roytronic® Series A7 and Roytronic® Excel AD8 type pump requires optional 4 Pin to 5 Pin adapter P/N 48488. Note: RFP flowmeters can also be used with AA9, B9, C9 and Roytronic Excel Series AD8, AD9 pumps. Please program in pulse multiply (factor 1) or pulse divide (factor 1).
- When using the RFP flowmeter, the speed control function is bypassed and taken over by the divider unit. The flow of the water through the flowmeter automatically controls the speed of the pump. On the Series AA7, the speed knob is fully turned counter-clockwise to put the pump in external mode. On Series B7 and C7 pumps, a switch is used to select the external mode. Roytronic® Series A7 uses a power/mode button and the Roytronic® Excel AD8 uses a mode button to change to external mode.
- Be sure the pump's pressure rating exceeds the system pressure by a minimum of 20%. For example, if system pressure equals 100psi (6.9 Bar), the pump rating should be 120psi (8.3 Bar) or greater.
- Use this calculation to determine pump output in gallons per hour (GPH*).

$$\frac{\text{Max. flowrate of water through flowmeter (in GPM*)} \times \text{Desired concentration (in PPM*)}}{\text{Percent concentration of pumping solution (expressed as a whole number)}} = \boxed{} \times .006 = \boxed{} \text{ (Required pump output in GPH*)}$$

$$\text{Example A: } \frac{100 \text{ (GPM*)} \times 10 \text{ (PPM*)}}{5.25 \text{ (\% solution expressed as a whole number)}} = \boxed{190.48} \times .006 = \boxed{1.14} \text{ (Required pump output in GPH*)}$$

Example Results: Select a B7I pump with 1.6 GPH* max. output at 150psi.



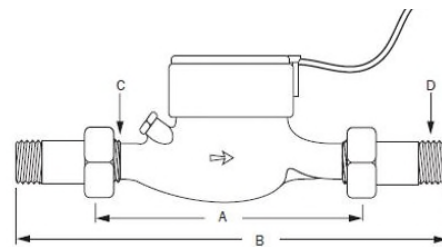
REMOTE FLOWMETER-PULSER

Flowmeter Specifications

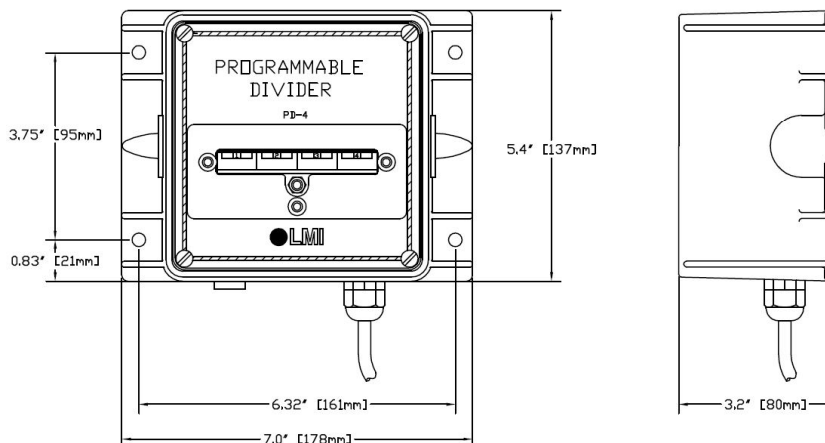
RFP-075, RFP-100, RFP-150, RFP-200

Flowmeter only P/Ns		59235	59236	59237	59238
Model - RFP		RFP-075	RFP-100	RFP-150	RFP-200
Meter Type		Multi-Jet Impeller, Magnetic Drive			
Body Material		Lead Free Brass Alloy			
Register Type		Straight Reading U.S. Gallons Dry Register			
Totalizer Digits		7			
Service Temp	°F (°C)	32 - 105 (0 - 40)			
MAX Op. Pressure	psi (Bar)	150 (10.3)			

Model No.		RFP-75	RFP-100	RFP-150	RFP-200
Nominal Size	inch	3/4	1	1-1/2	2
	mm	20	25	40	50
A (Body)	inch	7.5	10.25	11.75	11.75
	mm	190	260	298	298
B (w/couplings)	inch	12.63	15.63	17.63	17.63
	mm	321	397	448	448
C (IPS thread)	inch	1	1.25	2	2.5
D (NPT thread)	inch	.75	1	1.5	2
Net Weight	lbs	8	10	16	18
	kg	3.6	4.5	7.3	8.2



REMOTE PROGRAMMABLE DIVIDER - ALL MODELS



We are a proud member of Accudyne Industries, a leading global provider of precision-engineered, process-critical, and technologically advanced flow control systems and industrial compressors. Delivering consistently high levels of performance, we enable customers in the most important industries and harshest environments around the world to accomplish their missions.



LMI® is a registered trademark of Milton Roy, LLC.

© 2016 Milton Roy, LLC.

info@lmipumps.com

www.lmipumps.com

