

REM-1F

Digital Display Remote Pump Controller

Description

The REM-1F Digital Display Controller serves as either a pump remote control station or a proportional pump controller (4-20 mA input) or both. The REM-1F controller can be used to vary the output of any solenoid metering pump with external stroke triggering. This is truly a "plug-'n-play" accessory. A simple connection of 4-conductor cable from the REM-1F controller to the external input jack of an LMI® pump is all that is required for start-up. Similar connections can be made to other solenoid pumps. Power is supplied by a 15 VDC source from the LMI® pump through the 4-conductor cable. For other pump brands, an external 9-15 VDC power supply is needed.

The controller output, in the form of a solid state contact closure, triggers the electronic metering pump. The output is adjustable to 0-360 strokes-per-minute (spm) or 0-360 strokes-per-hour (sph). In internal mode, a touch of the pressure-sensitive arrow keys varies the output, which is displayed on large, easy-to-read LCD digits. Pumping rate can be displayed in Strokes, Litres or Gallons, per minute or per hour. In the external mode, output is from 0-360 spm or 0-360 sph directly proportional to the 4-20 mA analog input signal. Three meters (10 feet) of 3-conductor cable and connectors are supplied as standard for the 4-20 mA applications. Zero and span limits and calibrations may be made through the keys of the controller. All configuration changes and calibrations are saved in non-volatile memory.

In the "OFF" position, the 9-15 VDC power source will be present, but the controller output feed rate will be zero. The display will then read OFF. The rugged, polycarbonate NEMA® 12 (IP-52) enclosure is easily wall-mounted near the associated pump, or can be remotely located, using standard cable/connector sets available from Siemens Water Technologies.

Key Benefits

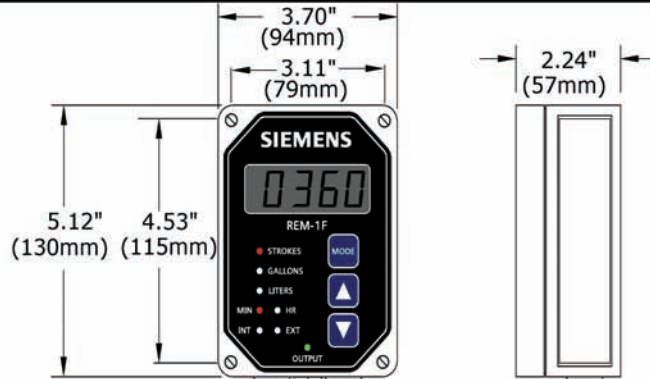
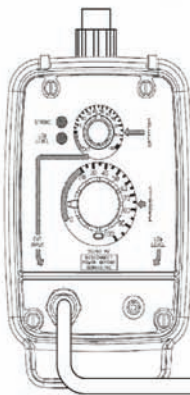
- Easy-to-Program 3 Push-Button Controls
- Large Easy-to-Read LCD Display
- LED Indicators Show Controller Status
- Local or Remote Control Options
- Strokes Per Hour or Minute displayed or Liters/Gallons Per Hour/Minute displayed
- Durable, NEMA® 12 Design (IP 52)
- Accurate Solid-State Technology



Data Sheet

REM-1F

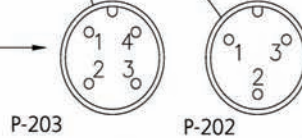
Electronic Metering Pump



NOTE: P-203 Pin Numbers correspond to LMI 4-pin input connectors.

Power from and output to Metering Pump. (2 Ft. Cable supplied standard)

4-20mA input wires will be marked at factory for proper connection in field.



(Looking into connectors on bottom of REM-1)

SIEMENS

Part Numbers Description

1983005	Cable Assy., 3 Conductor, 10'
1984005	Cable Assy., 4 Conductor, 2'
RM1974183	Shielded Cable
2723001	3-Pin Cable Connector
25643	4-Pin Cable Connector

P-201 Connections inside REM-1F

P-201 # 1+15+16	→
P-201 # 14	→
P-201 # 8+9	→
P-201 # NC	→

P-201 # NC	→
P-201 # 7+10	→
P-201 # 6	→

P-203, P-202 Connectors

P-203, Pin # 1	
P-203, Pin # 2	
P-203, Pin # 3	
P-203, Pin # 4	

P-202, Pin # 1	
P-202, Pin # 2	
P-202, Pin # 3	

Cable Connections

RED	Power + (+15VDC)	} 4-Pin Connector P-203
GREEN	Pump Trigger Common	
WHITE	Pump Trigger	
BLACK	Power - (Common)	
WHITE	Shield (Earth Ground)	} 3-Pin Connector P-202
BLACK	(-) Signal Common	
RED	(+) 4-20 mA Signal	
		External Control
		4-20mA DC
		50Ω Nominal Impedance

* NOTE: Gasket Kit P/N K7809901 available for panel mounting.

RWD 12/07

Config and Cal MENU: Press and hold **MODE** 5 seconds when in **OFF** Mode to enter Config Menus. Pressing **MODE** enters the menu displayed. To exit menus, press **▲** or **▼** until display shows done, then press **MODE**.

Pressing ▲ Loops around to the dOnE menu	diSP	Display Unit Section
Press ▲ or ▼ to scroll between menus	SPAn	Input Span and Limits
	CAL	Calibration
	drdn	Drawdown Calibration
	mLPS	mL per Stroke Calibration adjustment
	CEL	Control (Internal or External)
	FACE	Factory Defaults Reset
	vEr	Version of Embedded Software
Pressing ▼ Loops around to the diSP menu	dOnE	Done configuring, back to the OFF Mode

Inputs

Operating Voltage: 9-15 VDC
Nominal Current usage: 25 mA
1- External Control Input: 4-20 mA
(50 ohms nominal impedance)
Input Range Adjustable with Span Limits

Outputs

1- Solid State Contact closure
50mA maximum current
24VDC maximum voltage
Adjustable Span Limits on Pulses Per
Minute or Per Hour

Ratings

NEMA® 4X (IP 66)
CE, CSA® and CSAus pending

Enclosure

Overall dimensions:
130.0 x 94.0 mm
(5.12 x 3.70 in)
Mounting hole spacing:
115.0 x 79.0 mm
(4.53 x 3.11 in)
Non-Corrosive UL® Listed Polycarbonate
Water tight cord grip fitting for
external power supply cable

Connections

Power and Output, 4 pin Mobile connector
Remote Control Input, 3 pin Mobile connector
Optional Terminal Strip Adaptor for wiring Power,
Input and Output connections.

User Interface

4- digit, 7-segment LCD display
0.75 inch high characters
3 Push Buttons for output changes and
configuration
8 Status and Output LEDs

Options

0-100 Strokes Per Minute (default)
0-360 Strokes Per Minute
(via internal jumper change)
Display Shows Strokes Per Minute (default)
Display Shows Strokes Per Hour
or Litres Per Minute
or Litres P er Hour
or Gallons Per Minute
or Gallons Per Hour
LMI® Pump Power supplied (default)
External 9-15VDC Power Supply
(for Premia® Solenoid Metering
Pump and other solenoid-type metering
pumps)

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