PROGRAMMABLE INTERFACE DISPLAY FOR RATE, TOTAL AND CONTROL COMMANDS

TRODEKS®

FMI-100

1 YEAR WARRANTY CE

- ✔ **Displays Instantaneous and Total Flow**
- ✔ **Digital RS232 or RS485 Interface (Multi-Drop Up to 64 Devices)**
- ✔ **Programmable, Optically-Isolated Pulse and Digital Outputs**
- ✔ **For Use with FMA1700/1800 or FMA5400/5500 Series**
- ✔ **16 Point Programmable Controls, With Ramping Up/Down**
- ✔ **Free Configuration and Monitoring Utility Software**

The FMI-100 Series is for flowmeters and controllers with analog 0 to 5, 5 to 10, 0 to 10 Vdc or 4 to 20 mA input output interface, where flow indications/control, totalizers or alarm functions are required. Also when re-transmission of the flow rate and/or totalizer functions via optically-isolated pulse output or serial communication is desired. Local or programmable set point control for flow controllers (no host PC presence required).

The graphical LCD has large 13 mm (0.51") digits for flow rate and 5.5 mm (0.21") for total and can be set by user to simultaneously show different combination of the flow parameters: flow rate, totalizers, flow alarms, and diagnostic events. All configuration parameter settings are easily accessed via a simple user-interface menu driven by a 6 button key-pad which can be password-protected.

For flowmeters and/or flow controllers, FMI-100 provides jumpers selectable for 0 to 5 Vdc or 4 to 20 mA analog set point control signals. The flow rate set point can

be adjusted locally via key-pad, remotely via host PC using digital communication interface, or programmed in advance using built-in 16 steps batch table with ramping up/down support.

The programmable flow pulse output operates independently from the totalizers and based on configuration settings can provide pulse frequency proportional to instantaneous fluid flow rate. The FMI-100 provides two independent programmable flow totalizers. Both totalizers are updated every 100 ms and can be set to activate different events. Main totalizer accumulated total is backed-up

in EEPROM memory every second. And it provides the user with a flexible alarm/warning system that monitors the fluid flow for conditions that fall outside configurable limits as well as visual feedback for the user via the LCD or via an optically-isolated output.

All process data and settings can be read and modified manually via local LCD key-pad or through the digital RS232 or RS485 communication interface. Proprietary ASCII software interface command set and free Communication Utility software are provided.

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SPECIFICATIONS

ADC/DAC Resolution: 12-bit
Analog Inputs: 0 to 5 Vdc, 4 to 20 mA, 5 to 10 Vdc (jumper-selectable), 0 to 10 Vdc (contact Flow Engineers at TRODEKS for details)
Analog Outputs: 0 to 5 Vdc, 4 to 20 mA (jumper-selectable)
LCD: 128 x 64 graphic LCD with instantaneous flow reading and total volume indication, adjustable LCD contrast and back light
Key-Pad: Local 6 tactical push buttons
Pulse Output: User-programmable, optically-isolated, with preset active low time interval (10 to 6550 mS).
Digital Output: Two programmable, optically-isolated, UCE @ 40 Vdc, ICE @ 150 mA (voltage isolation; 250 Vrms)
Digital Interface: RS232 or RS485 (multidrop capability up to 64 devices)
Protocol: Proprietary ASCII software interface command set
Speed: 1200/2400/4800/9600/19200/38400/57600/115200 baud (user selectable)

Configuration:
  Stop Bit: 1
  Data Bits: 8
  Parity: None
  Flow Control: None
Addressing: Maximum 255 addresses (for RS485 option only)
Type: RS232 or RS485 2-wire
Power Requirements: 12 to 26 Vdc (up to 60 mA maximum)
Interface Connectors: Process I/O signals and digital RS232/RS485 interface, miniature 9-pin female D-SUB connector; digital optically-isolated outputs; TERM BLOCK HEADER 4POS 3.5 mm male pins, shrouded
Environment: Installation Level II, Pollution Degree II, (per IEC 664)
Electromagnetic Compatibility: Compliant ref. 89/336/EEC as amended; emission standard; EN 55011:1991, Group 1, Class A immunity standard: EN 55082- 1:1992
Operating Temperature: -10 to 70°C (14 to 158°F)
Dimensions: 86.4 W x 76.2 H x 19.1 mm D (3.4 x 3.0 x 0.75")
Weight: Approximately 125 g (0.3 lb)

To Order

Model No.	Description
FMI-102	RS232 monitor/control interface, no display
FMI-105	RS485 monitor/control interface, no display
FMI-102-10V	RS232 monitor/control interface, no display for 0 to 10V input/output
FMI-105-10V	RS485 monitor/control interface, no display for 0 to 10V input/output
FMI-102D	Rate/total, display, RS232 monitor/control interface
FMI-105D	Rate/total, display, RS485 monitor/control interface
FMI-102D-10V	Rate/total, display, 0 to 10V input/output monitor/control interface
FMI-105D-10V	Rate/total, display, 0 to 10V input/output monitor/control interface

Comes complete with operator's manual.

Mounting Kits (Sold Separately)

Model No.	Description
FMI-100-MKM-DD	Meter mounting kit two 9-pin D connectors
FMI-100-MKM-RD	Meter mounting kit RJ11 to 9-pin D
FMI-100-MKM-FD	Meter mounting kit flat wire to 9-pin D
FMI-100-MKC-2C	Controller mounting kit 12 Vdc North American with communication
FMI-100-MKC-2N	Controller mounting kit 12 Vdc North American no communication
FMI-100-MKC-4C	Controller mounting kit 24 Vdc North American with communication
FMI-100-MKC-4N	Controller mounting kit 24 Vdc North American no communication

For units with 230 Vac European plug add "-EU" to the model number, for additional cost.
For units with 240 Vac Austrialian plug add "-AU" to the model number, for additional cost.
For units with 240 Vac UK plug add "-UK" to the model number, for additional cost.
Ordering Example: FMI-105, *RS485 interface (no display) with* **FMI-100-MKM-RD** *meter mounting kit with cable.*