

# **OPERATING INSTRUCTIONS**

# MEMFLO<sup>™</sup> MFT2 2-WIRE FLOW TRANSMITTER



#### DESCRIPTION

Please read carefully! No liability can be accepted for damage caused by improper use or installation of the MFT2<sup>™</sup> Flow Transmitter.

The MFT2<sup>™</sup> two-wire flow transmitter accurately calculates and outputs flow rate. Compatible with any MEMFlo variable area flow meter, MFT2<sup>™</sup> combines FLO-CORP's time-proven variable area technology with a high tech processor and solid state circuitry. Each device includes an analog output that can be configured for 0-5 VDC, 0-10 VDC, or 4-20 mA current loop. Typical applications include pump flow output, compressed air consumption, cooling flow monitoring, steam flow usage/optimization and combustion gas metering.

### ▲ SAFETY PRECAUTIONS

If you are unsure of the suitability of an MFT2<sup>™</sup> Flow Transmitter for your installation, please consult your FLO-CORP representative for further information.

#### NOTE: REMOVE ALL PACKING INSERTS BEFORE OPERATING THE FLOW TRANSMITTER.

#### Authorized Personnel

All operations described in this operating instructions manual must be carried out only by trained specialist personnel authorized by the plant operator. During work on and with the device the required personal protection equipment must always be worn.

#### Warning about misuse

Inappropriate or incorrect use of the instrument can give rise to application-specific hazards, e.g. vessel over fill or damage

to system components through incorrect mounting or adjustment.

#### General Safety Instructions

The user must take note of the safety instructions in this operating instructions manual, the country specific installation

standards as well as all prevailing safety regulations and accident prevention rules. The instrument must only be operated in a technically flawless and reliable condition. The operator is responsible for trouble-free operation of the instrument. During the entire duration of use, the user is obliged to determine the compliance of the required occupational safety measures with the current valid rules and regulations and also take note of new regulations.

#### Disclaimer

The information contained in this document is subject to change without notice. FLO-CORP makes no representations or warranties with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for a particular purpose.

#### SPECIFICATIONS

General	
Process Temperature	F: -20° to 240° C: -29° to 116°
Ambient Temperature	F: -20° to 158° C: -29° to 70°
Environmental	Humidity: 0-90% non-condensing
Accuracy	±1% 0.25% rate
Repeatability	±0.10% rate
Electrical	
Power Requirements	0.5 VDC Output 10-30 VDC @ 3 wire 0-10 VDC Output 12-30 VDC @ 3 wire 4-20 mA Output loop-powered, 12 VDC - 30 VDC - 2 wire
Power Consumption	25 mA maximum
Analog Outputs	0-5 VDC and 0-10 VDC into 10,000 Ohms minimum; 4-20 mA into 1000 Ohms maximum
Resolution	1:4000
Transmission Distance	<ul> <li>4-20 mA limited by cable resistance</li> <li>(4000')</li> <li>0-5 VDC 1000 feet (330m) maximum</li> <li>0-10 VDC 1000 feet (300m) maximum</li> </ul>
Circuit Protection	Reverse polarity and current limiting
Isolation	Inherently isolated from the piping system
Transient Over-Voltages	Category 3, in accordance with IEC 64
Temperature Drift	50 ppm/°C (Max)
Enclosure Rating	NEMA 4 (IP67) ; NEMA 7, Aluminum

Note: Specifications subject to change

#### **FEATURES & BENEFITS**

- Non-contact sensor electronic
- Electronic signal conditioning circuit
- 3 output modes: 4-20mA, 0-5 VDC or 0-10 VDC
- Proportional analog output two-wire, 4-20mA
- Designed to slip over any standard measuring tube
- Pre-calibrated from the factory for fast installation and start-up

#### DIMENSIONS



#### INSTALLATION AND SETUP

1. After the MEMFIo Flow Meter has been installed, place the MFT transmitter on the meter's sight tube.

2. Disconnect electrical power from the target system before making or changing any transmitter connections.

3. Use 0.5A fast acting fuse if non-current limited power sources are utilized.

4. Terminate cable shield connection at either DC ground or Earth ground.

5. Install unit on measuring tube until MFT2 is seated at bottom rest. Use Allen wrench to fasten lock rings, which will hold the unit in place.

#### WIRING DIAGRAM



### **Ordering Information**

#### FLO-CORP MODEL NUMBER BUILDER

For Assistance Call 877.356.5463

Use the diagram below, working from left to right to construct your FLO-CORP Model Number. Simply match the category number to the corresponding box number. Example: MFT2-01-N4 MEMFIO MFT2<sup>TM</sup> Flow Transmitter for 3/4" flow meter with NEMA 4X Enclosure

N4) NEMA 4X (IP67)

- A1) EPOXY COATED ALUMINUM
- N7) NEMA 7



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