ASHE CONTROLS PVT LTD
an ISO 9001:2015 certified company

MX-450-X / MX-460-X

MX-Series Flow Totalizer / Batch Controller



Overview

The ASHE MX-450-X and MX-460-X are part of a range of Flow Rate Indicator Totalizers with Batch Control function, offered in a compact, rugged and reliable execution.

The instrument has two LED digital displays on the front panel – the Flow Rate Display and the Totalizer display. The RATE display indicates flow rate value on a four-digit (MX-450) or five-digit (MX-460) display, while the TOTALIZER display indicates the accumulated flow integrated over the selected time scale on an eight-digit display. The instrument has non-volatile memory.

The Flow Rate Indicator / Totalizer accepts a standard analog input signal of 4 to 20 mA DC (two/four-wire) or a Pulse (Frequency) input of 0-10 kHz and displays it on the four-digit display representing the Flow Rate.

At the same time, it integrates this signal with respect to the selected time scale and displays it on the Totalizer display. Two Relay outputs are offered – each of which may be independently configured for either flow rate or the batch totalized value, as desired – these set points may be set through the Membrane Key-pad on the front panel. Two LED indications show the over-range status of the two control Relays. Options for analog retransmission (4 to 20 mA DC) and data communication (RS485 on Modbus RTU) are offered.

An auxiliary power supply is generated internally for powering the external Flow Transducer or Mass Flow Meter.

The instruments operate on 90 to 270 V, 50/60 Hz Universal AC power supply (Optionally 24 VDC). They are available in panel-mount and field-mount (weather-proof / explosion-proof executions).

This product is backed by a full two-year warranty, covering all manufacturing defects and workmanship issues under normal operating conditions.

Specifications

Model	ASHE MX-450-X (8 Digit + 4 Digit). ASHE MX-460-X (8 Digit + 5 Digit)
Type	Digital Flow Indicator Totalizer in flameproof execution.
Input Signal	4 - 20 mA DC (Optionally 0-10 kHz Frequency Signal)
System	Two-wire/Four-wire (to be specified)
Display	Seven-segment ½" red LED display.
Indications	Four/Five-digit for Flow Rate display. Eight-digit for Totalizer display.
Flow Rate Scale Range	0 to 9999/99999
Totalizer Scale Range	0 to 99999999 [eight-digit].
Rate Calibration Range	Configurable
Decimal Point	Selectable for both displays.
Output Signal	4 to 20 mA DC retransmitted (optional)
Load Driving Capacity	Upto 600 Ohms.
Response Time	Typically 100 mS
Output	Two control relay change-over contacts.
Contact Rating	10 Ampere @ 230 VAC (Res. Loads).
Accuracy	± 0.1% FS.
Resolution	+0.1%, 1 digit.
Power Supply	90 to 270 VAC, 50/60 Hz Universal AC Power (optionally 24 VDC).
Auxiliary Power supply	24 VDC at 100 mA for Transmitter Power.
Dimensions	250 x 250 x 210 mm [H x W x D]
Enclosure	Aluminium Alloy LM6 Die-cast enclosure suitable for Zone I, Gas group IIA/IIB/IIC certified.
Execution	Hazardous-area installation in IP66 execution.
Weight	Approximately 3 kg.
Operating Temperature	0 to 55°C

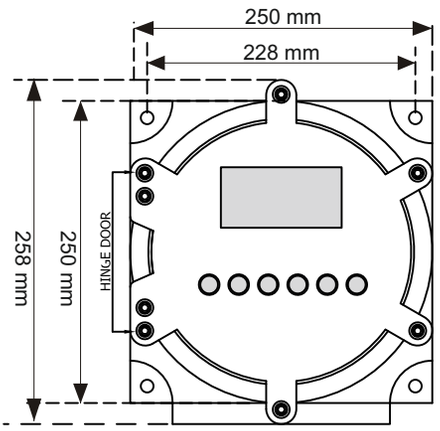
Features

- Microcontroller based design
- Analog Current or Frequency (Pulse) input
- Fully configurable settings
- High accuracy and linearity to input signal
- Four or Five digit flow rate display
- Eight-digit totalized value display
- Seven-segment red LED displays
- Two Relay change-over contacts for Rate or Batch Control
- Very low power consumption and heat dissipation
- Retransmission (optional)
- Auxiliary Power supply for external Transducer / Transmitter
- Universal AC Power Supply
- Rugged, industrial grade ABS enclosure
- High noise immunity
- Panel / Field / Hazardous-area installation in IP66 execution
- Two-year Performance Warranty
- Proven track record of successful site installations

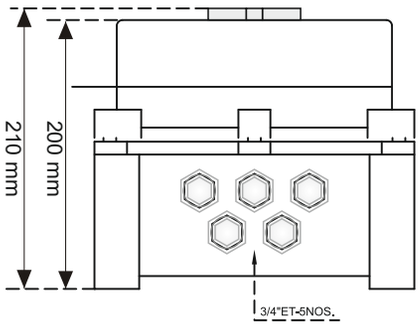
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Dimensional Diagram



FRONT VIEW



BOTTOM VIEW

How To Order

	FLOW TOTALIZER (BATCH CONTROLLER)									
a.	**Dual Display (8 digit + 4 digit)**	**MX-450**								
b.	**Dual Display (8 digit + 5 digit)**	**MX-460**								
	Configuration and add-on options :									
1	**POWER SUPPLY**									
▸	AC Voltage 90 to 270 VAC, 50/60 Hz		A							
▸	DC Voltage 24 VDC		D							
2	**INPUT TYPE**									
▸	DC Current 4 to 20 mA DC			L						
▸	Pulse 0 to 10 Khz			P						
3	**EXECUTION**									
▸	Front Panel mounting				P					
▸	Field mounting in Weather-proof execution (Option only in MX-450)				W					
▸	Field mounting in Flame/Explosion-proof Ex-d execution				X					
4	**COMMUNICATION**									
▸	RS485 on Modbus RTU required					M				
▸	RS485 on Modbus RTU not required					N				
5	**RETRANSMISSION (4 to 20 mA DC)**									
▸	Retransmission required						R			
▸	Retransmission not required						N			
6	**AUX POWER OUTPUT**									
▸	Aux 24 VDC output required								Q	
▸	Aux 24 VDC output not required								N	

Our Other Products


FLOW TOTALIZER


SIGNAL ISOLATORS & TRANSDUCERS


TEMPERATURE SCANNER


FLAMEPROOF INSTRUMENTS


STATIC POWER SWITCHES

Designed and Manufactured by :
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