

FLOW TOTALIZER / BATCH CONTROLLER

MX-450 • MX-460



Overview

The ASHE MX-450 and MX-460 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 instrument accepts a standard analog input signal of 4 to 20 mA DC (two/four-wire) or a Pulse (Frequency) input of 0-10 kHz. An auxiliary power supply is generated internally for powering the external Flow Transducer or Mass Flow Meter.

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 Switch-pad on the front panel. Two LED indications show the over-range status of the two control Relays.

The Flow Indicator Totalizer Model MX-450 and MX-460 operate on universal AC power supply. They are available in panel-mount and field-mount (weather-proof / explosion-proof executions).

All ASHE range of instruments carry a lifetime warranty for design and workmanship.

Specifications

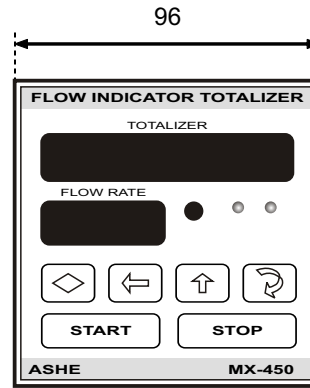
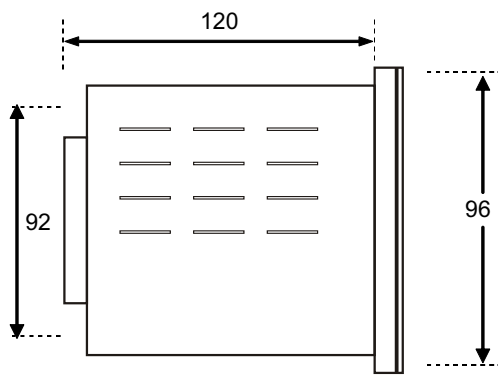
Model	ASHE MX-450.
Type	Digital Flow Indicator Totalizer.
Input Signal	4 to 20 mA DC
System	Two wire / Four wire [to be specified].
Display	Seven-segment ½" red LED display.
Indications	Four/Five-digit for Flow Rate display. Eight-digit for Totalizer display.
Rate Scale Range	0 to 9999/99999.
Rate Calibration Range	Configurable.
Output Signal	4 to 20 mA DC retransmitted [optional].
Load Driving capacity	Upto 600 Ohms.
Totalizer range	0 – 99999999 [eight-digit].
Decimal point	Selectable for both displays.
Response time	Typically 100 mS to within one count of the final value.
Output	Two control relay change-over contacts.
Contact rating	10 Ampere @ 230 V AC (Res. Loads).
Accuracy	0.1% FS.
Resolution	0.1%, 1 digit.
Power Supply	90 to 270 V AC, 50 Hz (5%).
Auxillary Power supply	24 V DC to Transmitter (two-wire mode).
Bezel Dimensions	96 x 96 mm.
Cut-out Dimensions	92 x 92 mm.
Depth	110 mm.
Enclosure	Industrial grade ABS.
Execution	Front-panel mounting.
Weight	Approximately 1.0 kgs.



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 option.
- Auxillary Power supply for external Flow Transducer
- Universal AC Power Supply
- Rugged, industrial grade ABS enclosure
- High Noise immunity.
- Panel / Field / Hazardous-area installation in IP65 execution
- Proven record of several thousand installations
- Lifetime warranty on design and workmanship

DIMENSIONAL DIAGRAM



HOW TO ORDER

1. FLOW TOTALIZER (BATCH CONTROLLER)
(with Dual Relay Control for Flow Rate / Total)
Input (pre-specified) : 4 to 20 mA / 0 to 10 KHz.
Display : Dual display 8+4 digit LED
Power Supply : 90 to 270 V AC, 50 Hz
" Panel mount version : 8 digit totalized display

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|---|--------|
| a. Display : Dual Display (8 digit + 4 digit) | MX-450 |
| b. Display : Dual Display (8 digit + 5 digit) | MX-460 |

Configuration and Add-on options w

1 INPUT SIGNAL / SENSOR

- ▶ 4 to 20 mA DC
- ▶ 4 to 20 mA DC with aux 24 VDC @ 100 mA power for Trans.
- ▶ Frequency, Proximity Sensor.

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2 POWER SUPPLY

- ▶ Standard Power Supply offered
- ▶ Universal AC Power Supply, 90 to 270 V AC, 50/60 Hz.
Optional Power Supply available on request
- ▶ 24 V DC (±10%).
- ▶ Other (to be specified).

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3 EXECUTION

- ▶ Panel mounting [96 x 96 x 110 mm]
- ▶ Field mounting in Weather-proof execution
(Polycarbonate enclosure, IP65 protection)
- ▶ Field mounting in Flame/Explosion-proof execution
(Cast Aluminum Alloy LM6 enclosure, for Gas groups IIA, IIB)

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4 RETRANSMISSION

- ▶ Retransmission of 4 to 20 mA DC
- ▶ Retransmission of 0 to 10 V DC
- ▶ No Retransmission
- ▶ Other (to be specified)

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OUR OTHER PRODUCTS



PROCESS CONTROLLER

UNIVERSAL CONTROLLER

FLOW TOTALIZER

TEMP. SCANNER

SIGNAL ISOLATORS & TRANSDUCERS

SMPS POWER SUPPLIES