

**MST200 – Ratemeter, Batcher, Totalizer**

- ▶ 6-digit LED display
- ▶ Flow meter/totalizer/batcher
- ▶ Flow rate/total flow display
- ▶ 1 pulse counting input + 3 control inputs
- ▶ 0/2 or 4 REL / OC outputs, RS-485 / Modbus RTU
- ▶ Analogue output, 24V DC power supply output
- ▶ Free configuration software S-Config



The purpose of flow controller working with flow sensor is to measure the flow rate and to record the total flow of media like liquids, gases or loose materials. A wide range of total flow indication (up to 16 digits) allows controlling the flow rate for a long operation time. Thanks to the built-in batcher function the MST200 can be used in many industries like: food, pharmaceutical or paint and varnish industry. The REL/OC control outputs can be programmed depending on the flow rate, total flow or batcher. Additionally the controller may be equipped with analogue outputs, according to the customer selection: active current output ( 0/4 ... 20mA ) , passive isolated current output ( 4 ... 20mA ) or active voltage output ( 0/1 ... 5V,0/2...10V ) . The controller can be configured with the local keyboard or free S-Config software via the RS-485 communication port.

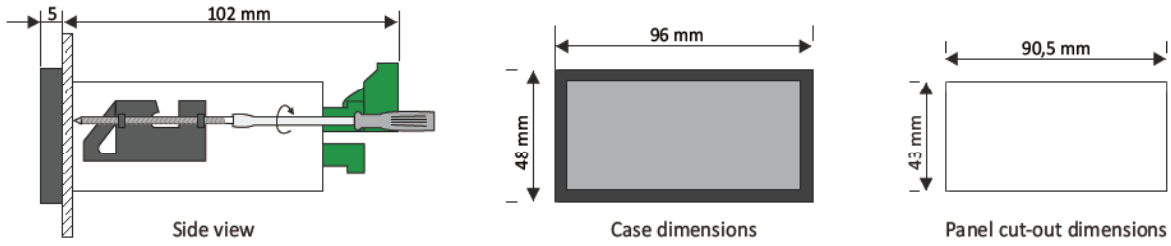
**Specifications**

<b>Power Supply</b>	19...50Vdc, 16...35Vac or 85...260Vac/Vdc
<b>Power Consumption</b>	16...35Vac and 85...260Vac/Vdc: Max. 6.5 VA
	19...50Vdc: Max. 6.5 W
<b>Accuracy</b>	Frequency: ± 0.02% (full temperature range); Flow: equivalent to used flow sensor precision
<b>Display</b>	Red LED, 6 x 13 mm height
<b>Display Range</b>	0...999999 + decimal point
<b>Readout Precision</b>	
Flow Rate	Selected in the 0 ... 0.00000 of unit
Total Flow and Batcher	Selected in the 0 ... 0.000 of unit
<b>Inputs (pulse, fully isolated)</b>	Counting input with debouncing filter and pulse width control: max. input frequency 10.0 kHz Zeroing of batcher counter: active edge or level Zeroing of total counter: active edge or level Counting blockade: active edge or level
<b>Input Levels (12mA@24V)</b>	Low level: 0 V...1 V; High level: 10 V...30 V
<b>Counter Capacity</b>	Total Flow: over 4 x 10 <sup>9</sup> m <sup>3</sup> (max. 16 significant digits) Batcher: up to 65536 m <sup>3</sup>
<b>Units</b>	Flow rate: l or m <sup>3</sup> per second/minute/hour; Total flow and batcher: l or m <sup>3</sup>
<b>Pulse Waiting Time</b>	Settable from 0.1 to 39.9 seconds
<b>Output</b>	
Switching Output	0, 2 or 4 x REL, I <sub>max</sub> =1A, U <sub>max</sub> =30Vdc/250Vac (cosφ=1); or OC, I <sub>max</sub> =30mA, U <sub>max</sub> =30Vdc, P <sub>max</sub> =100mW
Active Current	0/4...20 mA (Max. 0...24 mA); R <sub>max</sub> =700Ω; resolution13 bit
Passive Current	4...20 mA (Max. 2.8...24 mA); R=600Ω (@24Vdc) ; resolution13 bit
Active Voltage	0/1...5V, 0/2...10V (max. 0...11V); RA≥2KΩ; resolution 13bit
<b>Communication Interface</b>	RS-485, 8N1 and 8N2, 1200...115200 bit/s; Modbus RTU
<b>Protection Class</b>	IP 65 (front side when an optional seal is installed); IP 40 (front side); IP 20 (case and connection clips)

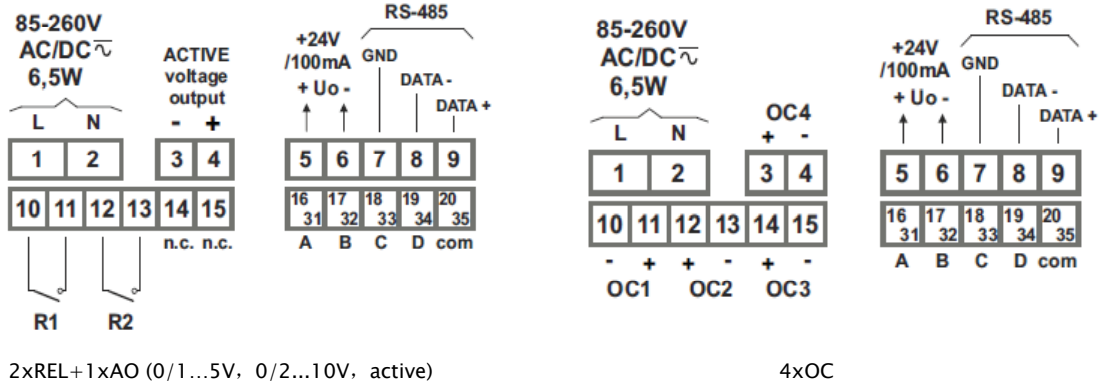
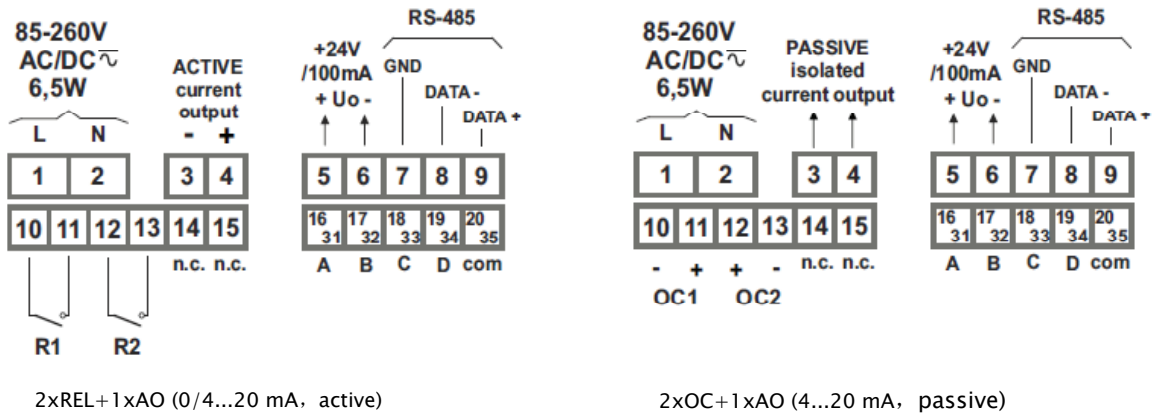
**Applications**

- ▶ Working with FTB/FPW/  
FGR series

### Dimensions in mm



### Wiring



### Order Code

<b>MST :</b>	Ratemeter, batcher, totalizer
<b>200 :</b>	Series# - 6-digit LED display
<b>Output No.</b>	
<b>0R :</b>	0
<b>2R :</b>	2
<b>3R :</b>	3
<b>4R :</b>	4

<b>MST</b>	<b>200</b>	<b>2R</b>	<b>1</b>	<b>P2</b>	<b>R</b>	<b>07</b>	<b>-</b>
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#### Output type

- 0 :** Without output
- 1 :** REL output (for 2 and 4 outputs)
- 2 :** OC output (for 2 and 4 outputs)
- 3 :** 2xREL+1xAO (0/4...20 mA, active, non-isolated)
- 4 :** 2xOC+1xAO (0/4...20 mA, active, non-isolated)
- 5 :** 2xREL+1xAO (4...20 mA, passive, isolated)
- 6 :** 2xOC+1xAO (4...20 mA, passive, isolated)
- 7 :** 2xREL+1xAO (0/1...5V, 0/2...10V, active, non-isolated)
- 8 :** 2xOC+1xAO (0/1...5V, 0/2...10V, active, non-isolated)

#### Power Supply

- P2 :** 24V AC/DC
- P8 :** 85V...260V AC/DC

#### Mounting Plates

- S :** 120x120mm square version
- R :** 144 x 72 mm rectangle version

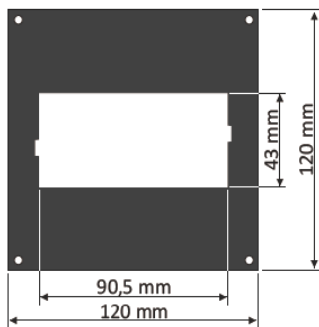
#### Board Thickness of Brackets

- 07 :** 1...7mm (2 pcs, standard)
- 05 :** 1...5mm (2 pcs)
- 45 :** 1...45mm (2 pcs)

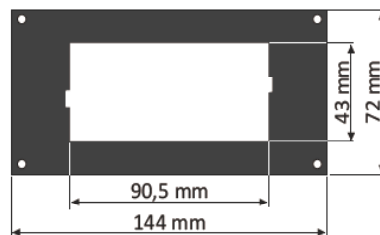
#### Option

- :** None
- I :** Protection class IP 65
- O :** Operating temperature -20°C...+50°C
- IO :** Protection class IP 65 + operating temperature -20°C...+50°C

### Mounting Plates



120x120mm square version



144 x 72 mm rectangle version

Board Thickness Brackets



Board thickness 1...7mm (2 pcs, standard)



Board thickness 1...45mm (2 pcs)



Board thickness 1...5mm (2 pcs)