

# MEASURING TRANSDUCERS

## MI 45x

### USE



Measuring transducer of family MI 45x are designed for use in industrial process for conversion of DC current in to appropriate DC current or DC voltage signals.

### Versions

- MI 458 - DC current
- MI 456 - DC voltage
- MI 454 - TAP position
- MI 452 - Resistance
- MI 450 - Temperature with Pt 100

### DESCRIPTION

- **MI 458** - Accuracy class 0.5
  - Inputs:  $I = 1 \dots 10 \text{ mA DC}$  ;  $I = 10 \dots 100 \text{ mA DC}$
  - Housing width (a): 45 mm
- **MI 456** - Accuracy class 0.5
  - Inputs:  $U = 50 \text{ mV} \dots 1 \text{ V DC}$  ;  $U = 1 \text{ V} \dots 50 \text{ V DC}$  ;  $U = 50 \text{ V} \dots 400 \text{ V DC}$
  - Housing width (a): 45 mm
- **MI 454** - Accuracy class 0.5
  - Inputs:  $100 \Omega \dots 50 \text{ k}\Omega$  ;  $1000 \Omega \dots 500 \text{ k}\Omega$
  - Housing width (a): 45 mm
- **MI 452** - Accuracy class 0.5
  - Inputs:  $R = 0 \dots 10 \Omega \dots 50 \text{ k}\Omega$  ;  $R = 0 \dots 100 \Omega \dots 500 \text{ k}\Omega$
  - Housing width (a): 45 mm
- **MI 450** - Accuracy class 0.5
  - Inputs: 2-wire, 3-wire, 4-wire
  - Housing width (a): 45 mm
- AC auxiliary power supply: 57, 63.5, 100, 110, 230, 400, 500 V
- **Options:**
  - RS 232 or RS 485 serial communication port
  - Universal auxiliary power supply for DC & AC 24 ... 300 V DC / 40 ... 276 V AC

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## MI 45x

COMPARISON AND COMMON CHARACTERISTICS					
TYPE					
DIN type	MI 450	MI 452	MI 454	MI 456	MI 458
<b>MEASUREMENTS - PROCESS QUANTITIES</b>					
Voltage DC				●	
Current DC					●
TAP position			●		
Resistance		●			
Temperature - RTD sensors	●				
<b>MEASUREMENTS - GENERAL</b>					
<b>Accuracy</b>					
U, I, $\phi$ , THD, PF (or process quantities)	0.5	0.5	0.5	0.5	0.5
<b>POWER QUALITY</b>					
Sampling rate, maximum samples per cycle	128	128	128	128	128
<b>COMMUNICATIONS AND I/O OPTIONS</b>					
RS485 or RS232 port	●	●	●	●	●
Baud rate	1200...115200 bps	1200...115200 bps	1200...115200 bps	1200...115200 bps	1200...115200 bps
Mudbus RTU & DNP3 on serial	●	●	●	●	●
Analog outputs	1	1	1	1	1
Maximum # of I/O	1	1	1	1	1
Analogue output braking points, zoom-in	●	●	●	●	●
Programmable I/O	●	●	●	●	●
<b>POWER SUPPLY, CONNECTION AND DIMENSIONS</b>					
Power supply	AC/DC (24...300 V DC, 40...276 V AC); AC various ranges	AC/DC (24...300 V DC, 40...276 V AC); AC various ranges	AC/DC (24...300 V DC, 40...276 V AC); AC various ranges	AC/DC (24...300 V DC, 40...276 V AC); AC various ranges	AC/DC (24...300 V DC, 40...276 V AC); AC various ranges
Mounting	DIN rail	DIN rail	DIN rail	DIN rail	DIN rail
Dimensions in mm	44.8x75x105.5	44.8x75x105.5	44.8x75x105.5	44.8x75x105.5	44.8x75x105.5

**LEGEND:**

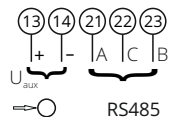
- feature supported

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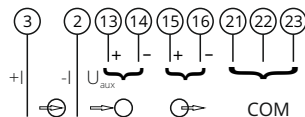
## FAMILY OF MI 4xx

### CONNECTION DIAGRAMS

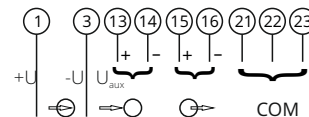
MI 488



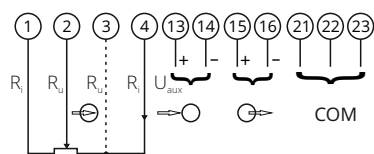
MI 458



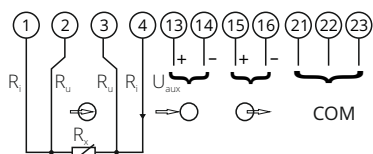
MI 456



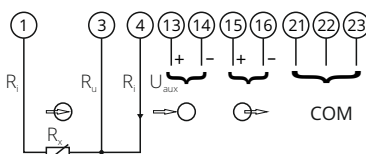
MI 454



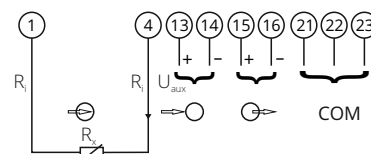
MI 452, 4-wire



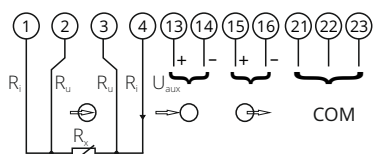
MI 452, 3-wire



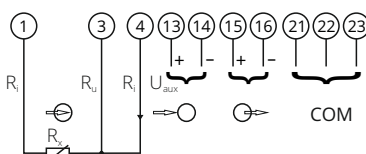
MI 452, 2-wire



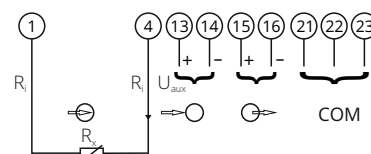
MI 450, 4-wire



MI 450, 3-wire

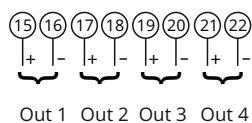


MI 450, 2-wire



MT 440

Transducers can have up to four analogue outputs



**Note:**

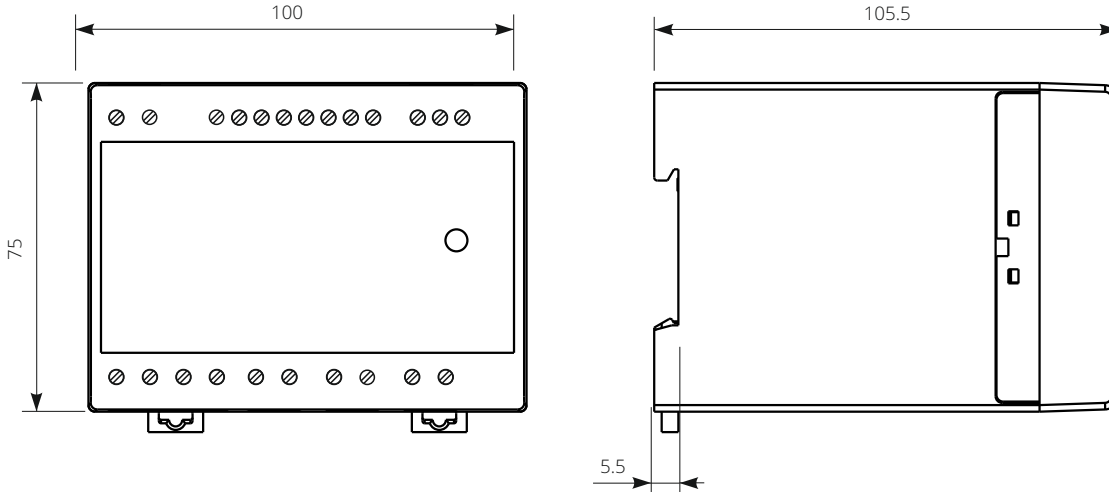
Auxiliary supply on connection terminals 13 (-) and 14 (+), output on connection terminals 15 (-) and 16 (+).

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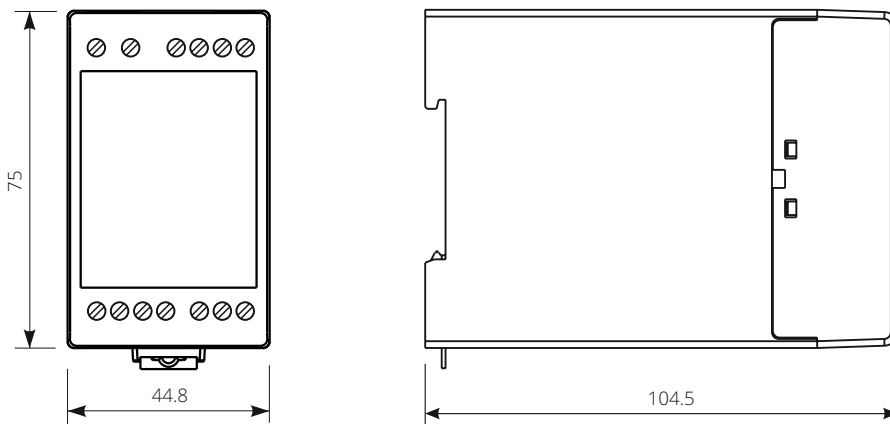
## FAMILY OF MI 4xx, MT 440, RD 500

### DIMENSIONS (in mm)

#### MT440



#### MI4xx



#### RD 500

