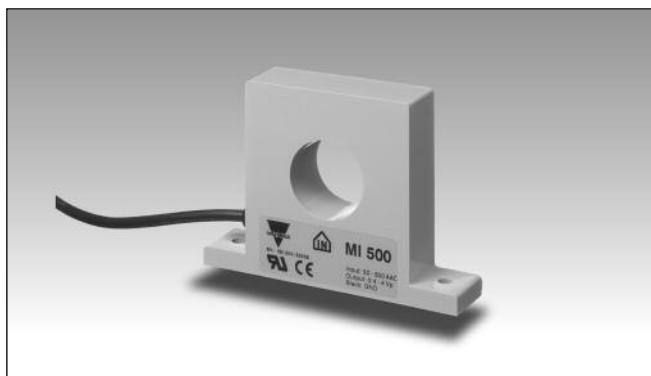


# Monitoring Relays

## Current Transformer, 1-Phase AC

### Types MI 5, MI 20, MI 100, MI 500

CARLO GAVAZZI



- 1-phase current metering transformer for use with control relays types: DUA01, PUA01, DIB02, PIB02, DIC01, PIC01, DWA01, PWA01, DWB01, PWB01, DWB02, PWB02, DWB03, PWB03, S 180, H 479
- Measuring ranges:
  - MI 5: 0.5 - 5 AAC
  - MI 20: 2 - 20 AAC
  - MI 100: 10 - 100 AAC
  - MI 500: 50 - 500 AAC

## Product Description

AC current transformers for 5, 20, 100, 500 AAC. Output voltage (0.4 - 4 V<sub>p</sub>) is proportional to measured current.

## Ordering Key

**MI 500**

Type \_\_\_\_\_  
Input current \_\_\_\_\_

## Type Selection

Input current	Type no.
5 AAC	MI 5
20 AAC	MI 20
100 AAC	MI 100
500 AAC	MI 500

## Input Specifications

	MI 5	MI 20	MI 100	MI 500
<b>Current range</b>	0.5 - 5 AAC	2 - 20 AAC	10 - 100 AAC	50 - 500 AAC
<b>Max. current</b> (continuously)	20 AAC	50 AAC	250 AAC	750 AAC
<b>Max. overload current</b> (t = 30 s)	40 AAC	85 AAC	325 AAC	1000 AAC
<b>Frequency range</b>	40 Hz-1 kHz	40 Hz-1 kHz	40 Hz-1 kHz	40 Hz-1 kHz
<b>Rated insulation voltage</b> Input-output	1000 VAC <sub>rms</sub>	1000 VAC <sub>rms</sub>	1000 VAC <sub>rms</sub>	1000 VAC <sub>rms</sub>
<b>Overvoltage category</b>	IV (IEC 60664)	IV (IEC 60664)	IV (IEC 60664)	IV (IEC 60664)
<b>Dielectric strength</b> Dielectric voltage Rated impulse withstand volt.	6 kVAC <sub>rms</sub> 12 kV (1.2/50 μs)	6 kVAC <sub>rms</sub> 12 kV (1.2/50 μs)	6 kVAC <sub>rms</sub> 12 kV (1.2/50 μs)	6 kVAC <sub>rms</sub> 12 kV (1.2/50 μs)
<b>Power consumption</b>	< 100 mW/5 A	< 100 mW/20 A	< 0.5 W/100 A	< 6 W/500 A

## Output Specifications

	MI 5	MI 20	MI 100	MI 500
<b>Output Voltage</b> (T <sub>A</sub> = 20°C, R <sub>L</sub> = 9.5 kΩ)	0.4 - 4 V <sub>p</sub>	0.4 - 4 V <sub>p</sub>	0.4 - 4 V <sub>p</sub>	0.4 - 4 V <sub>p</sub>
<b>Output impedance</b>	< 700 Ω	< 200 Ω	< 40 Ω	< 10 Ω
<b>Tolerance of output voltage</b> @ rated input current	± 5%	± 5%	± 5%	± 5%
<b>Temperature variation</b>	± 0.1% per °C	± 0.1% per °C	± 0.1% per °C	± 0.1% per °C
<b>Rated insulation voltage</b> (cable)	250 VAC <sub>rms</sub>	250 VAC <sub>rms</sub>	250 VAC <sub>rms</sub>	250 VAC <sub>rms</sub>



## General Specifications

<b>Pollution degree</b>	3 (IEC 60664)	
<b>Ambient temperature</b>	- 20° to + 60°C (- 4° to + 140°F)	
<b>Housing</b>		
Dimensions	MI 5, MI 20	52 x 45 x 16 mm
	MI 100, MI 500	95 x 67.5 x 20 mm
Material	ABS	
<b>Weight</b>	MI 5, MI 20	70 g
	MI 100, MI 500	270 g
<b>Connection cable</b>	2 m, 2 x 0.25 mm <sup>2</sup>	
<b>Approval</b>	UL	
<b>CE-marking</b>	Yes	

## Mode of Operation

The metered conductor is drawn through the central hole of the current metering transformer. Drawing the conductor through the hole several times makes it possible to meter currents below the nominal range.

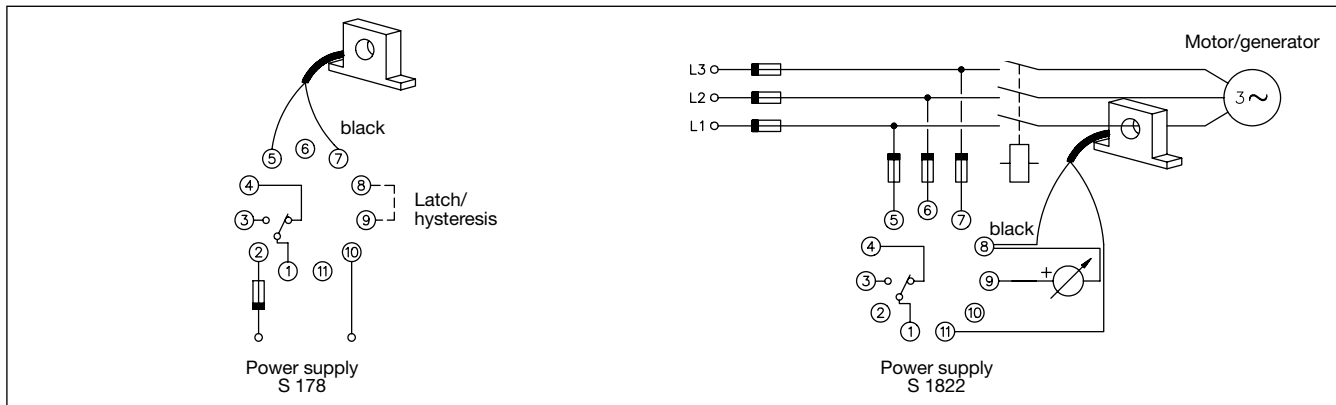
If the conductor is drawn through the central hole e.g. 5 times, the metering transformer will register 50 A when

the current in the conductor is 10 A.

In amplitude and phase the output voltage is proportional to the phase current metered.

4  $V_p$  will then be equal to the rms-value of the nominal phase current.

## Wiring Diagrams



## Dimensions

