

Current and Voltage Controls

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:
S 178, S 180, S 1821, S 1822, SM 115, SY 115, 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_p) 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
Current range	0.5 - 5 AAC	2 - 20 AAC	10 - 100 AAC	50 - 500 AAC
Max. current (continuously)	20 AAC	50 AAC	250 AAC	750 AAC
Max. overload current (t = 30 s)	40 AAC	85 AAC	325 AAC	1000 AAC
Rated insulation voltage				
Input-output	1000 VAC _{rms}	1000 VAC _{rms}	1000 VAC _{rms}	1000 VAC _{rms}
Overvoltage category	IV (IEC 60664)	IV (IEC 60664)	IV (IEC 60664)	IV (IEC 60664)
Pollution degree	3 (IEC 60664)	3 (IEC 60664)	3 (IEC 60664)	3 (IEC 60664)
Dielectric strength				
Dielectric voltage	6 kVAC _{rms}	6 kVAC _{rms}	6 kVAC _{rms}	6 kVAC _{rms}
Rated impulse withstand volt.	12 kV (1.2/50 μs)	12 kV (1.2/50 μs)	12 kV (1.2/50 μs)	12 kV (1.2/50 μs)
Power consumption	< 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
Voltage output (T _A = 20°C, R _L = 9.5 kΩ)	0.4 - 4 V _p	0.4 - 4 V _p	0.4 - 4 V _p	0.4 - 4 V _p
Output impedance	< 700 Ω	< 200 Ω	< 40 Ω	< 10 Ω
Tolerance of output voltage @ rated input current	± 5%	± 5%	± 5%	± 5%
Temperature variation	± 0.1% per °C	± 0.1% per °C	± 0.1% per °C	± 0.1% per °C
Rated insulation voltage (cable)	250 VAC _{rms}	250 VAC _{rms}	250 VAC _{rms}	250 VAC _{rms}

General Specifications

Ambient temperature	- 20° to + 60°C (- 4° to + 140°F)
Connection cable	2 m PVC, 2 x 0.25 mm ²
Weight	MI 5, MI 20 70 g MI 100, MI 500 270 g
Material/colour	ABS, light grey
Approval	UL

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.

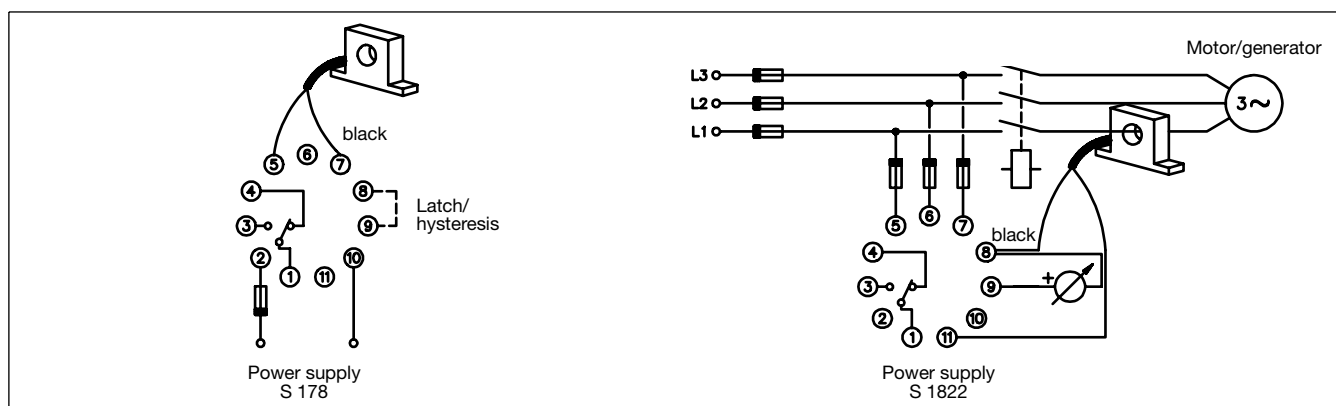
If the conductor is drawn through the central hole e.g. 5 times, the metering trans-

former 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.

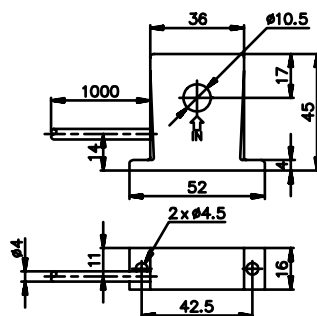
4 V_p will then be equal to the rms-value of the nominal phase current.

Wiring Diagrams



Dimensions

MI 5, MI 20



MI 100, MI 500

