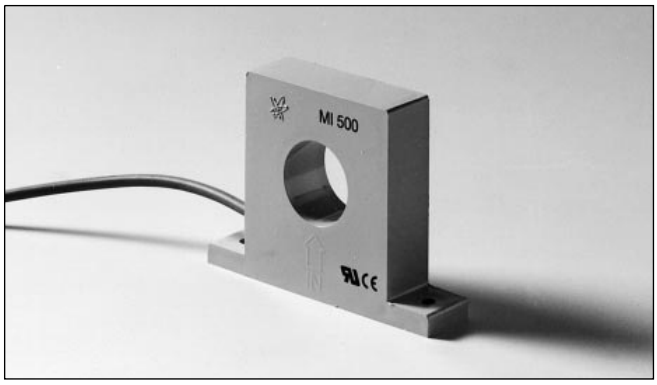
Current and Voltage Controls
Current Transformer, 1-Phase AC
Types MI 5, MI 20, MI 100, MI 500

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 Vp) 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 Rated impulse withstand volt.	6 $kVAC_{rms}$ 12 kV (1.2/50 µs)	6 $kVAC_{rms}$ 12 kV (1.2/50 µs)	6 $kVAC_{rms}$ 12 kV (1.2/50 µs)	6 $kVAC_{rms}$ 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}

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General Specifications

Ambient temperature	- 20° to + 60°C (- 4° to + 140°F)
Connection cable	2 m PVC, 2 x 0.25 mm²
Weight	**MI 5, MI 20** 70 g **MI 100, MI 500** 270 g
Material/colour	ABS, light grey
Approval	UL

Mode of Operation

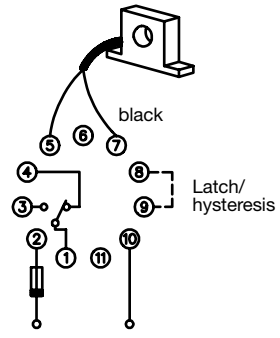
The metered conductor is drawn through the central hole of the current metering transformer. Drawing the conductor through the hole several times makes it possible to meter currents below the nominal range.

If the conductor is drawn through the central hole e.g. 5 times, the metering transformer will register 50 A when the current in the conductor is 10 A.

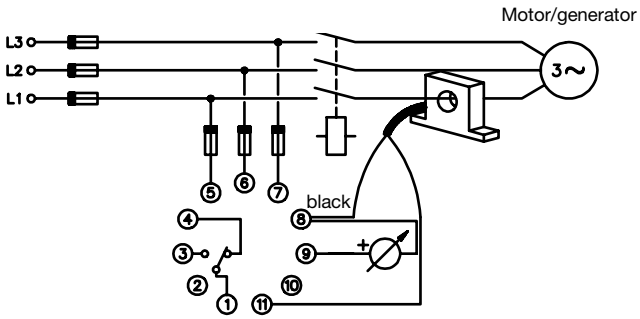
In amplitude and phase the output voltage is proportional to the phase current metered.

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

Wiring Diagrams



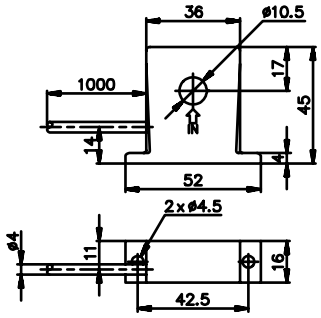
Power supply
S 178



Power supply
S 1822

Dimensions

MI 5, MI 20



MI 100, MI 500