# Active flexible AC measuring sensor AMOS M


CAT IV 300 V
CAT III 600 V

## PURPOSE

Active flexible AC measuring sensor AMOS M is intended for measuring of AC in low voltage distribution networks. Advantages of this sensor are a small diameter of sensing loop and an increased resistance to trickling water. The AMOS M sensor converts alternating current to alternating voltage. Thanks to active signal processing in the amplifier and to sensing loop performance, the sensor measures currents in a wide frequency range with minimized phase shift between the measured current and output voltage.

It is possible to use the AMOS M sensor within the framework of measuring systems and protections.

**TECHNICAL SPECIFICATIONS**

| | |
|---|---|
| Nominal current $I_{nom}$: | 30 A, 100 A, 300 A, 1000A [1] |
| Output voltage: | 1.00 V for $I_{nom}$ |
| Max. output voltage $U_{peak}$ : | $(U_{supply} - 1.0)$ V |
| Output sensor resistance: | max. 100 Ω |
| Linearity error: | 0.2 % |
| Basic error: | 0.5 % |
| Additional error | |
| caused by the lock position: | 1.0 % |
| Frequency error: | max 0.5 % (frequency in the range from 50 Hz to 400 Hz) |
| | max 1.5 % (frequency in the range from 40 Hz to 3000 Hz) |
| Phase error: | max 0.5 % (frequency in the range from 50 Hz to 1000 Hz) |
| Length of the loop: | 40 cm |
| Loop diameter: | 8 mm |
| Diameter of free threaded part of lock: | 10 mm |
| Allowed radius of the loop axis: | >20 mm |

[1] one value only

**Working conditions**

| | |
|---|---|
| Temperature: | –20 °C to +55 °C |
| Relative humidity: | 0 % to 95 % |
| Nominal voltage of measured current cable without its own isolation: | 230 V |
| Ingress protection rating: | IP42 |
| Sensor loop measurement category: | IV |
| Security class: | II |

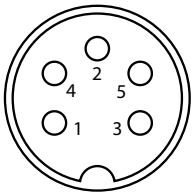
**Power supply of sensor**

| | |
|---|---|
| Power supply voltage: | $+U_{supply}$ = +5 V to +12 V |
| | $-U_{supply}$ = –5 V to –12 V |
| Input power: | max. 1.5 mA / ±5 V |

Wiring:

1 – common wire
2 – shielding
3 – $U_{output}$
4 – $+U_{supply}$
5 – $-U_{supply}$

View of the fork solder points:




**Manufacturer**

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