

Current and Voltage Controls

AC Current Transformer

Type E 82-20, Mini E-housing

CARLO GAVAZZI



- 3 input ranges in one unit: 0 - 5 AAC
0 - 10 AAC
0 - 25 AAC
or
0 - 20 AAC
0 - 30 AAC
0 - 50 AAC
- Output 4-20 mADC
- Easy interface to PLC or setpoint relays
- For mounting on DIN-rail in accordance with DIN/EN 50 022
- 22.5 mm small Euronorm housing

Product Description

Small AC current metering transformer with 3 knob selectable ranges. Output from the transformer is 4-20 mADC in accordance with IEC 60381. Can be used with relay EID, EII or S183 or directly connected to a PLC.

Power supply ON is indicated by a green LED. 12 mm hole for isolated current carrying wire makes it suitable for most applications. For mounting on DIN-rail or directly on surface by screws.

Ordering Key **E 82-20 50**

Type _____
Output _____
Input current (highest range) _____

Type Selection

Input current	Output current	Switch position	Type no.
0- 5 AAC	4 - 20 mA	5	E82-20 25
0-10 AAC	4 - 20 mA	10	E82-20 25
0-25 AAC	4 - 20 mA	25	E82-20 25
0-20 AAC	4 - 20 mA	20	E82-20 50
0-30 AAC	4 - 20 mA	30	E82-20 50
0-50 AAC	4 - 20 mA	50	E82-20 50

Input Specifications

Current range	0 - 5 AAC	0 - 10 AAC	0 - 20 AAC	0 - 25 AAC	0 - 30 AAC	0 - 50 AAC
Max. current (continuously)	50 AAC	50 AAC	100 AAC	50 AAC	100 AAC	100 AAC
Max. overload current (t = 30 s)	150 AAC	150 AAC	300 AAC	150 AAC	300 AAC	300 AAC

Output Specifications

Output current (sink)	4-20 mADC
Maximum output current	35 mADC
Tolerance of output current @ 50 Hz	± 2%
Temperature variation	± 400 ppm/°C
Reaction time	τ < 100 ms worst case reaction time may be up to 5 x τ
Frequency range	40 Hz - 1 kHz
Frequency variation	10 ppm/Hz
Power ON delay	< 1 s
Terminal capacity	2 x 1.5 mm ² wires in each
Power supply (loop voltage)	10-40 VDC

General Specifications

EMC	Electromagnetic Compatibility
Immunity	Acc. to EN50082-1 (tolerance of output current: ± 2%) Acc. to EN50082-2 (tolerance of output current: ± 5%)
Emission	Acc. to EN50081-1
Environment	
Degree of protection	IP 20
Pollution degree	3
Operating temperature	-20° to +50°C (-4° to +122°F)
Indication for	
Power supply ON	LED, green
Weight	70 g
Dimensions	49 x 22.5 x 56 mm (LxWxH)



Mode of Operation

The E 82-20 is a small AC current metering transformer with standardized 4-20 mADC output. This makes it very useful as an AC current interface to a PLC with 4-20 mADC input.

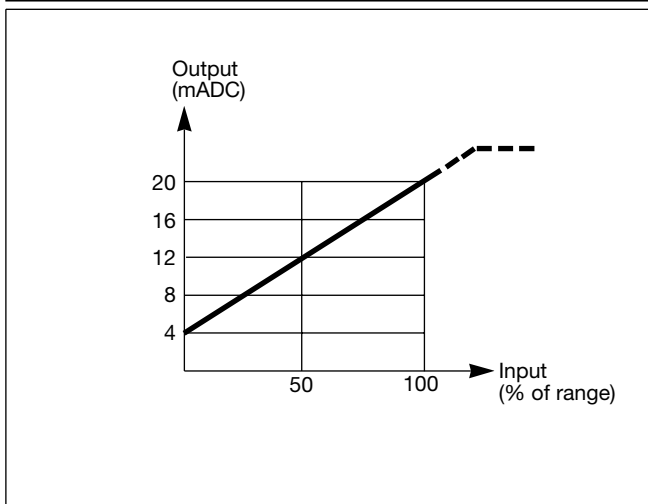
Used with relay EID, EIL or S 183, one or more setpoints can monitor the current and signal alarm. S 183 also provides the DC voltage supply for the E 82-20.

In the 5 A range the E 82-20 is often used as a 4-20 mADC

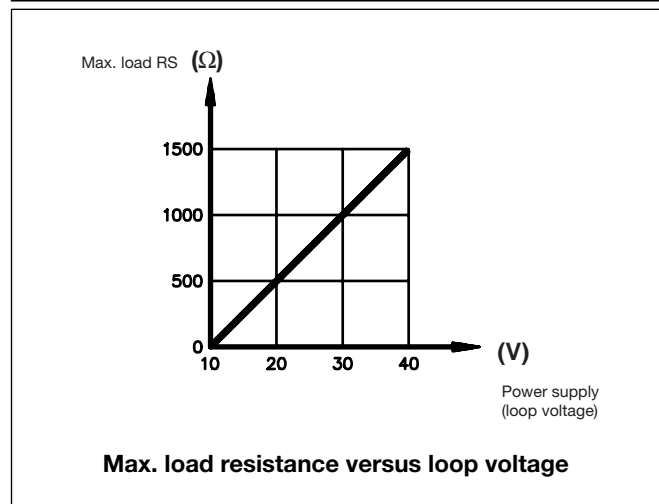
signal converter for larger standard AC current transformers with 5 AAC secondary output. The metered conductor is drawn through the central hole of the current metering transformer. It is possible to measure currents below the nominal range by drawing the

conductor through the hole several times. If the conductor is drawn through the central hole e.g. 5 times, the transformer will register 5 AAC when the current in the conductor is 1 AAC.

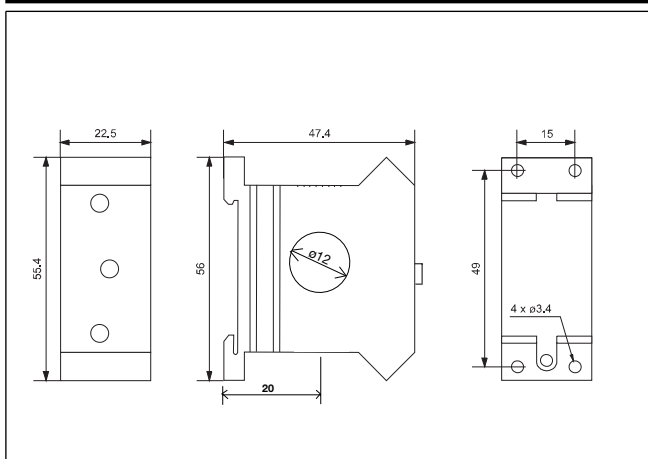
Input/Output Curve



Resistance/Voltage Curve



Dimensions



Wiring Diagram

