



Z201-H AC CURRENT TRANSMITTER

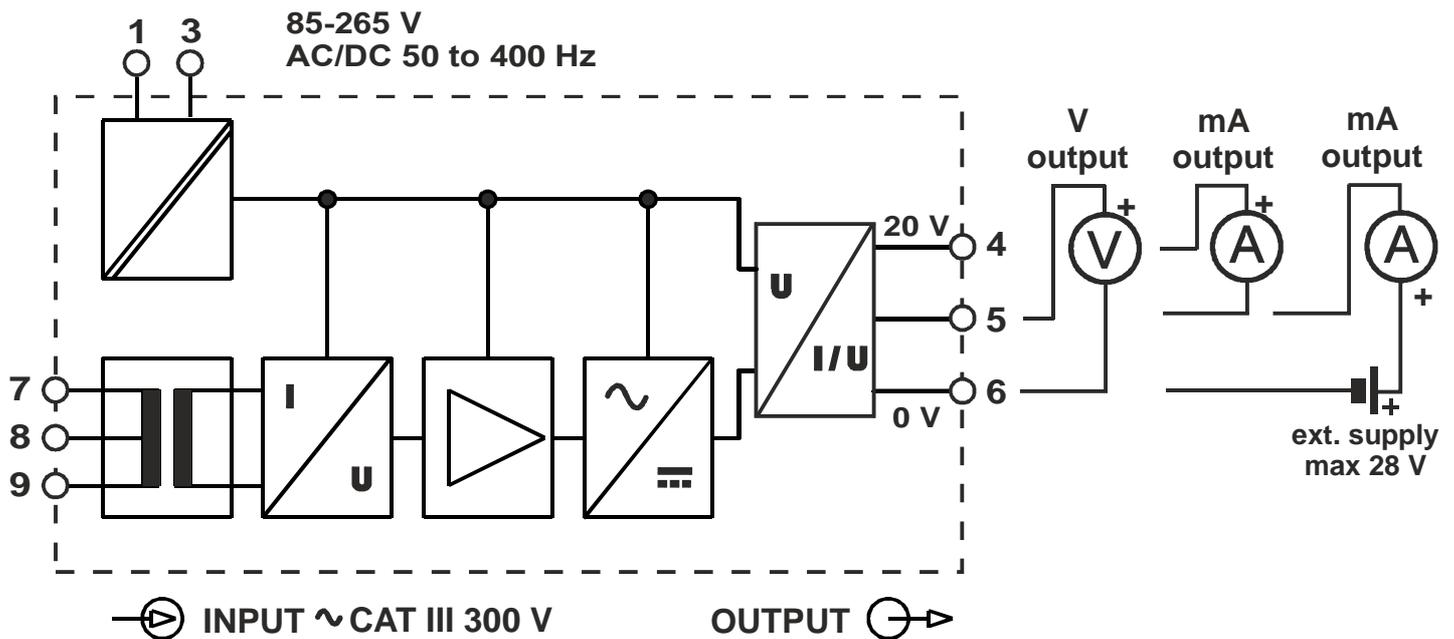
GENERAL SPECIFICATIONS

The Z201-H current converter measures the simple harmonic alternating current applied at the input and generates a standard mA or V signal directly proportional to the current measured.

- 5 AAC or 10 AAC full scale current input
- 0-20 mA or 4-20 mA output with active or passive connection; 0-10 VDC, 2-10 VDC, 0-5 VDC, or 1-5 VDC
- Settable by internal jumper and DIP-switch
- High precision: 0.3% FS
- Power supply presence indication on front panel
- 3-way isolation: 4000 VAC between power supply / input and output

BLOCK DIAGRAM

Power supply



TECHNICAL SPECIFICATIONS

Power Supply Specifications

Power Supply:	85-265 VDC or VAC from 50 to 400 Hz; Isolation: input / output : 4000 VAC
Consumption:	< 2 W at full load; < 20 mA @ 230 VAC

Input Specifications

Current Input:	Alternating Current: 0-5 AAC or 0-10 AAC, Selectable by terminal wiring.
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Frequency Isolation: Overvoltage measurement Class:	20 Hz to 1 kHz 4000 VAC power supply / output CAT III 300 V, for installation on 3-phase lines up to 500 VAC ph-ph, 300 VAC ph-n.
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Output Specifications

Current Output:	Active or passive: 0-20 mA or 4-20 mA selectable by internal jumper and DIP-switch. Maximum load resistance : 600 Ω. Protection : 400 W/ms. Available Voltage: < 21 V. Maximum applicable external voltage (if passive output): 28 V. Isolation: power supply / input 4000 VAC
Voltage Output:	0-5 V, 1-5 V, 0-10 V or 2-10 V selectable by internal jumper and DIP-switch. Minimum load resistance: 2500 Ω. Protection: 400 W/ms Isolation: power supply / input 4000 VAC

Precision Specifications

Precision @ 25°C (1)			Other (2)
20-400 Hz (3)	0.2 % om	0.1 % ots	< 0.1 % ots
400-1000 Hz (3)	0.4 % om	0.2 % ots	< 0.1 % ots
Thermal Stability:	200 ppm/K.		

Other Specifications

Response Time:	For a stepped variation: max 100 ms from 10 to 90 %.
Operating conditions:	Temperature: -10 to 65°C, humidity 30-95 % @ 40°C not-condensing. Group III. Storage Temperature : -20 to 85 °C Altitude: up to 2000 meters a.s.l.
LED signal:	Presence of power supply (green)
Protection degree:	IP20.
Weight, Dimensions:	140 g, 100 x 112 x 17.5 mm
Standards: 	EN60688/1997 + A1 + A2 EN61000-6-4/2002-10 (electromagnetic emission, industrial environment) EN61000-6-2/2006-10 (electromagnetic immunity, industrial environment) EN61010-1/2001 (safety)

(1): These acronyms apply: om = of measurement, ots = of the scale.

(2): Error caused by electromagnetic disturbances (EMI).

(3): The precision values are indicated for a sinusoidal signal with distortion of < 1%, on current reading 4-20 mA; errors on the other output scales are increased as follows: by 0.1 % for zero offset (0 mA, 0 V), by 0.1 % on fs 5 V and by 0.15 % on fs 10 V.

The precision indicated in the table can, on request, be provided on another specified scale.

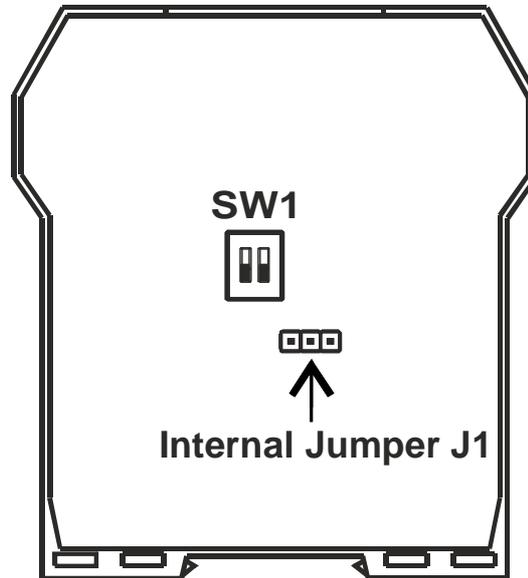
Remember that the instrument indicates the average adjusted value in relation to the RMS value.

INSTALLATION REQUIREMENTS

The module is designed to be installed on a DIN 46277 rail, and wired only by the front terminals.

We suggest you to install the instrument vertically in order to allow ventilation of the module. Do not install any objects or wire channels that can obstruct the ventilation louvers. Avoid installing modules above equipment that generates heat. Install in the bottom of the panel or compartment.

DIP-SWITCH AND INTERNAL JUMPER POSITION



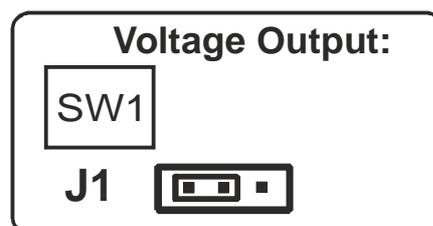
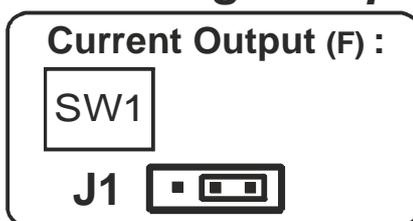
OUTPUT SIGNAL SETTINGS

The Z201-H instrument transmits a voltage or a current signal.

The output type (voltage or current) is set using the internal jumper, accessible under the rear side of the the case.

The signal range is set using the double DIP switch SW1.

Current or Voltage Output Selection



(F) : Factory settings.

Output Range Settings

Switch 1	Position	Scale
SW 1.1	0 - OFF	The full scale of the voltage output is 5 V .
	1 - ON (F)	The full scale of the voltage output is 10 V .
SW 1.2	0 - OFF	The start of scale offset is disabled (0-20 mA , 0-5/10 V scale).
	1 - ON (F)	The start of scale offset is enabled (4-20 mA , 1-5 o 2-10 V

(F) : Factory settings.

ELECTRICAL CONNECTIONS

We recommend using shielded cables for signal connections; the shield must be connected to a instrument earth connection. We also recommend never positioning these wires near power cables such as those for inverters, motors, or induction ovens, etc.

Power Supply Connection

The power supply voltage must be in the range of 85-265 VAC/VDC.

The upper limits must not be exceeded as this can seriously damage the module.

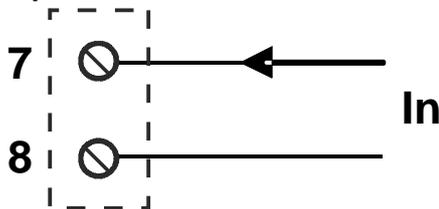
The power supply source must include a fuse or suitable limiting device to protect from any failures in the module.

Power supply

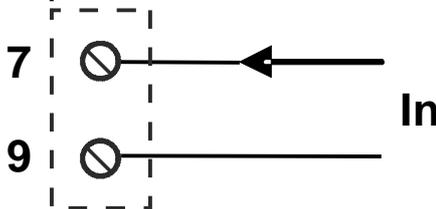


Input Connection

Input for $I_n < 10\text{ A}$



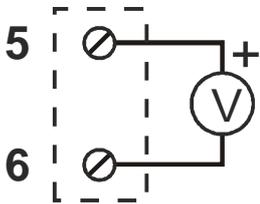
Input for $I_n < 5\text{ A}$



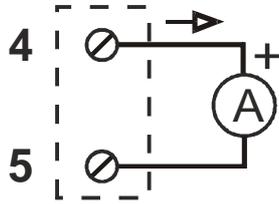
When connected to a current transformer, one of the two wires must be grounded.

Output Connection

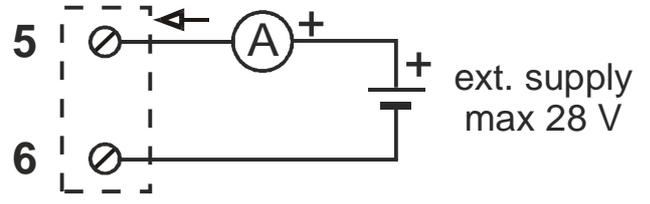
Voltage



Applied Current



External Power Supply



Disposal of Electrical & Electronic Equipment (Applicable throughout the European Union and other European countries with separate collection programs)

This symbol, found on your product or on its packaging, indicates that this product should not be treated as household waste when you wish to dispose of it. Instead, it should be handed over to an applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences to the environment and human health, which could otherwise be caused by inappropriate disposal of this product. The recycling of materials will help to conserve natural resources. For more detailed information about the recycling of this product, please contact your local city office, waste disposal service or the retail store where you purchased this product.

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SENECA s.r.l.

Via Austria, 26 - 35127 - PADOVA - ITALY

Tel. +39.049.8705355 - 8705359 - Fax +39.049.8706287

e-mail: info@seneca.it - www.seneca.it