EN

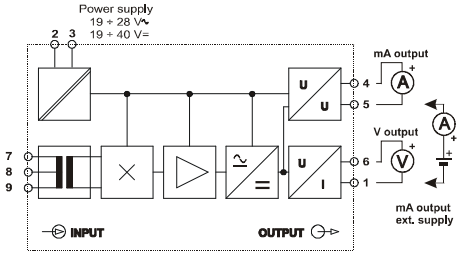
Z201
AC CURRENT CONVERTER

GENERAL SPECIFICATIONS

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

- 5 or 10A AC f.s. current input.
- Output 0..20 mA or 4..20 mA output with active or passive connection; 0/2..10 V DC or 0/1..5V DC settable by dip-switch.
- High conversion precision: 0.3% of the f.s. starting from 10% of the scale.
- Power supply presence indication on front panel.
- 3-point insulation: 1500V AC between power supply and output; 3700V AC between input and power supply/output.

BLOCK DIAGRAM



TECHNICAL SPECIFICATIONS

Power supply:	19..40V DC, 19..28V AC 50-60 Hz, max 2.5W.			
Input:	Current: 0 5A AC or 0 10A AC settable by terminal panel Insulation 3700V AC.			
Output:	Current 0..20 or 4..20 mA, maximum load 600 Ohm; Voltage 0..10 or 0..5V DC, 2..10 or 1..5V DC. Minimum load 2500 Ohm.			
Ambient conditions:	Temperature: 0..55°C, Min. humidity: 30%, max 90% at 40°C non-condensing (see also section "***installation***).			
Errors regard field of input measurement and with input > 10% of the scale.	Calibration error	Thermal coefficient	Linearity error	Other
20..400 Hz simple harmonic	0,3%	0,02%/°C	0,1%	1% max for EMC
400..1000 Hz simple harm.	0,5%	0,02%/°C	0,2%	1% max for EMC
Response time:	< 200 ms			
Permissible overload:	12A continuative, 30A for 1 s.			
Power supply/output protection:	against impulse voltage overload 400W/ms.			
Installation class:	III, it can be applied on a three-phase network of up to 500V AC phase-phase, 300V AC phase-ground.			
Standards: CE	The instrument complies with the following standards: EN50081-2 (electromagnetic emission, industrial environment) EN50082-2 (electromagnetic immunity, industrial environment) EN61010-1 (safety) All low-voltage circuits must be provided with double insulation protection against high voltage circuits.. The power supply transformer must comply with EN60742 standards for insulation transformers and safety transformers. insulation transformers and safety transformers.			

INSTALLATION

The module has been designed for vertical installation on a DIN 46277 guide.
For optimal operation and long life, adequate ventilation must be provided for the module(s), which must be positioned vertically. Avoid positioning channels or other objects that obstruct the ventilation louvers.
Avoid fitting modules above equipment that generates heat; you are advised to fit them at the bottom of the panel.

HARSH OPERATING CONDITIONS:

The following constitute harsh operating conditions:
- *High power supply voltage (> 30V DC / > 26V AC).*

When the modules are fitted side by side it may be **necessary to separate them by at least 5 mm** in the following cases:
- Panel temperature above 45°C in at least one of the above harsh operating conditions.

ELECTRICAL CONNECTIONS

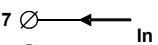
We recommend using shielded cables for signal connections; the shield must be connected to a preferential earth connection for instrumentation. We also recommend never positioning these wires near power installation cables such as those for inverters, motors, or induction ovens, etc.

POWER SUPPLY

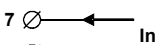
The power supply voltage must be in the range of 19 and 40V DC (any polarity or 19 and 28V AC; see also section ***INSTALLATION***
The upper limits must not be exceeded as this can seriously damage the module.
The power supply source must be protected from any failures in the module by means of a suitably sized fuse.

INPUT

Input for In < 10 A



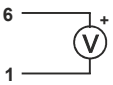
Input for In < 5 A



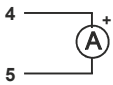
When connected to a transformer, one of the two wires must be grounded.

OUTPUT

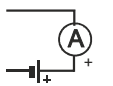
Voltage



Applied current



External power supply



OUTPUT SIGNAL PRE-SETTING

Pre-set the dip-switches on the side of the instrument marked “SW1” as shown in the figure below:

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