

Isolation and Measuring transducers
SIM - Current transducer for AC conversion
 22.5mm housing



Application

For the current monitoring of alternating voltage systems.

Description

The **SIM current transducer** uses the terminals A1 and A2 for connection to 24V AC/DC and 230V AC (please specify). The green LED indicates the connection of the power supply, which must be continuously connected to the transducer.

Function

The SIM transducer converts a flowing alternating current connected to the terminals B1 and B2 into an independent current or voltage signal. The desired output signal can be adjusted with the DIP switches located on the relay's front panel. The current or voltage signals are connected to different terminals (I_{out} or U_{out}). The SIM has three-way isolation.

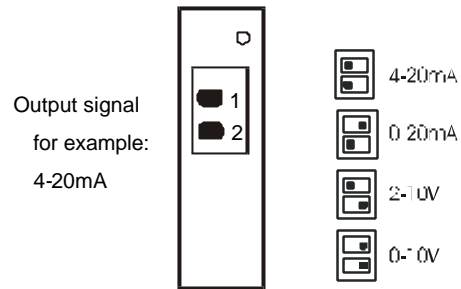
Options

Other supply voltages available upon request.

Part number

013006	SIM	0...20mA AC	24V AC/DC
013007	SIM	0...100mA AC	24V AC/DC
013008	SIM	0...500mA AC	24V AC/DC
013009	SIM	0...1A AC	24V AC/DC
013010	SIM	0...5A AC	24V AC/DC
013030	SIM	0...20mA AC	230V AC
013031	SIM	0...100mA AC	230V AC
013032	SIM	0...500mA AC	230V AC
013033	SIM	0...1A AC	230V AC
013034	SIM	0...5A AC	230V AC

DIP switch adjustments



Approvals



Mounting

Snap-on mounting using a standard DIN rail EN 50022. The unit is designed to allow side-by-side mounting, with an ambient temperature of $< 60^{\circ}\text{C}$.

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Technical data

Supply

Supply voltage
 or: 24V AC/DC -15 / +10%
 230V AC -15 / +10%

Frequency range: 0 / 50 ... 60Hz
 Power consumption: approx. 2VA
 Operating mode: continuous
 Insulation voltage: 24V -> 1kV
 230V -> 3,75kV

Measuring range

Measuring accuracy: 0.5% over the entire temperature and voltage range

Overload capability: 10% continuous, 100% 1s
 Insulation voltage: 3,75kV

Part number

24V AC/DC	230V AC	
013006	013030	0...20mA AC
013007	013031	0...100mA AC
013008	013032	0...500mA AC
013009	013033	0...1A AC
013010	013034	0...5A AC

Output values

Voltage loss in measuring range: max. 150mV
 Output: 0 (4)...20mA DC
 0 (2)...10V DC

Ohmic resistance: current output 750Ω
 voltage output 2kΩ

Insulation voltage: 3,75kV

Operation indicators

Supply voltage: LED, green

General data

Ambient temperature: - 25 ... + 60°C
 Climate resistance: VDE 0435T.2021
 Mounting position: any
 Vibration resistance: VDE 0435T.2021
 Test voltage: 2.5kV
 Isolation group: VDE 0110 Group C 250
 Protection class: Terminals IP 20
 Housing IP 40

Connection terminals:

Crosshead screws;
 M3.5 self opening
 Connection cross section: Multi-strand wire with wire sleeves 2 x 2.5mm²
 single wire 2 x 2.5mm²

Finger touch proof: VDE 0106T.100 and VBG4

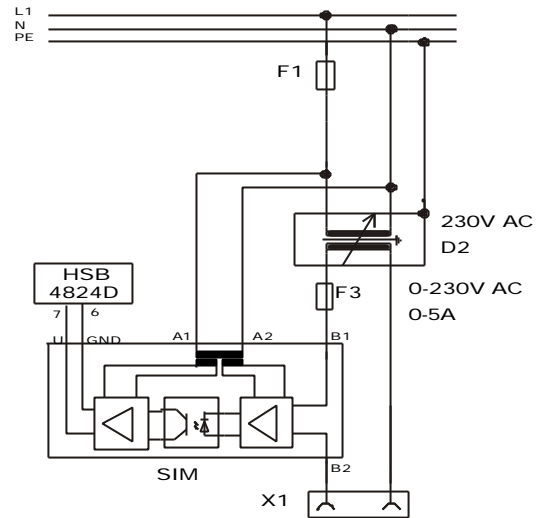
Mounting:

Symmetrical DIN rail EN 50022
 Dimensions l x w x h: 78mm x 22.5mm x 110mm

Weight:

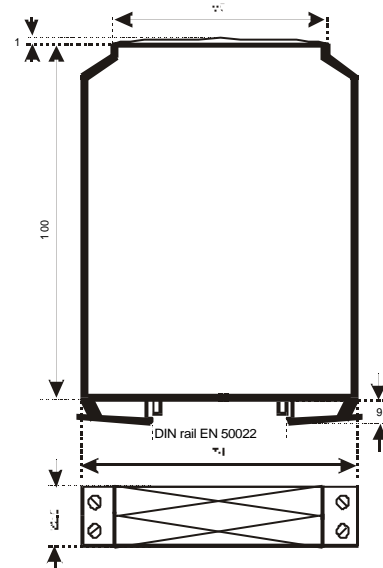
24V AC/DC version 76g
 230V AC version 150g

Example



The SIM converts the load current into a voltage signal. The load current is digitally displayed using the HSB4824D.

Dimensions



Connections

The terminal assignment for the connections is located on the front panel of the relay. **Reading the front panel from top to bottom**, the connections are in the following order:

Upper side	Right:	nc - nc - nc - nc
	Left:	B1 - A1 - I _{out} - U _{out}
Lower side	Right:	nc - nc - nc - nc
	Left:	B2 - A2 - nc - GND