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

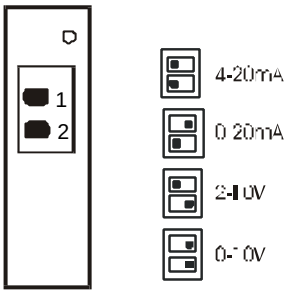
Other supply voltages available upon request.

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

Output signal
for example:
4-20mA



Approvals

CE

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°C.

HSB Industrieelektronik

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Technical data

Supply

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

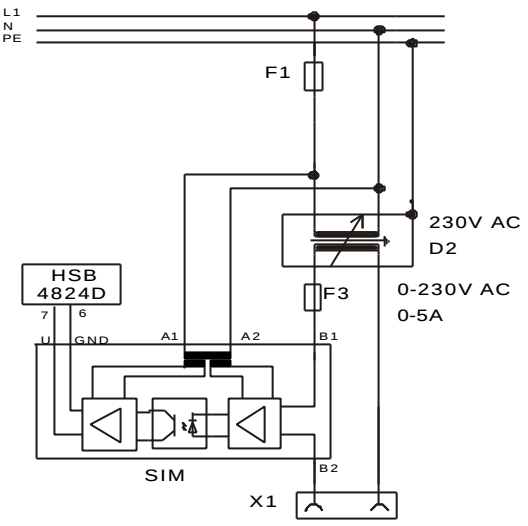
General data

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:

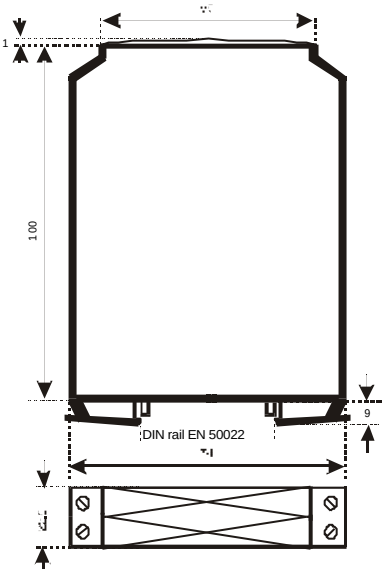
24V AC/DC version	76g
230V AC version	150g

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
		B2 – A2 – nc – GND

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