

Isolation and Measuring transducers
SUM - Voltage transducer for DC conversion
 22.5mm housing



Application

For the voltage monitoring of direct voltage systems

Description

The **SUM voltage 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 SUM transducer converts a direct voltage connected to the terminals B1 and B2 into an independent current or voltage signal. The desired output signal can be adjusted with 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 SUM has three-way isolation.

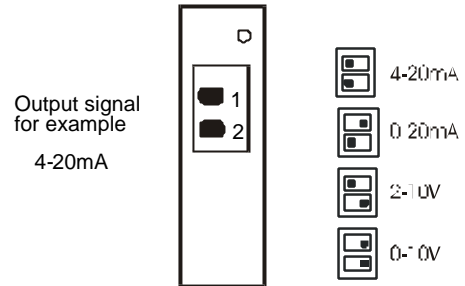
Part number

013025	SUM 0...5V DC	24V AC/DC
013026	SUM 0...10V DC	24V AC/DC
013027	SUM 0...50V DC	24V AC/DC
013028	SUM 0...100V DC	24V AC/DC
013029	SUM 0...250V DC	24V AC/DC
013049	SUM 0...5V DC	230V AC
013050	SUM 0...10V DC	230V AC
013051	SUM 0...50V DC	230V AC
013052	SUM 0...100V DC	230V AC
013053	SUM 0...250V DC	230V AC

Options

Other supply voltages available upon request.

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	24V AC/DC	-15 / +10%
or:	230V AC	-15 / +10%
Frequency range:	0 / 50 ... 60Hz	
Power consumption:	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	
013025	013049	0...5V DC
013026	013050	0...10V DC
013027	013051	0...50V DC
013028	013052	0...100V DC
013029	013053	0...250V DC

Output values

Output:	0 (4)...20mA DC
	0 (2)...10V DC
Ohmic resistance:	current output 750Ω
	voltage output 2kΩ
Insulation voltage:	3,75kV

Operating indicators

Supply voltage:	LED, green
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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
VDE 0106T.100 and
VBG4

Finger touch proof:

Mounting:

Symmetrical DIN rail
EN 50022

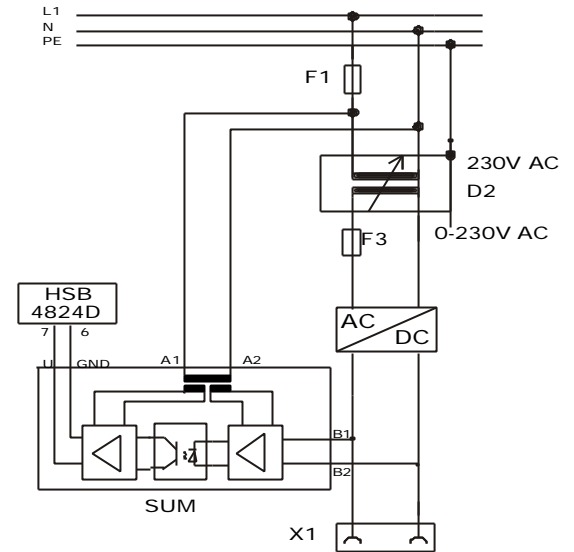
Dimensions l x w x h:

78mm x 22.5mm x
110mm

Weight:

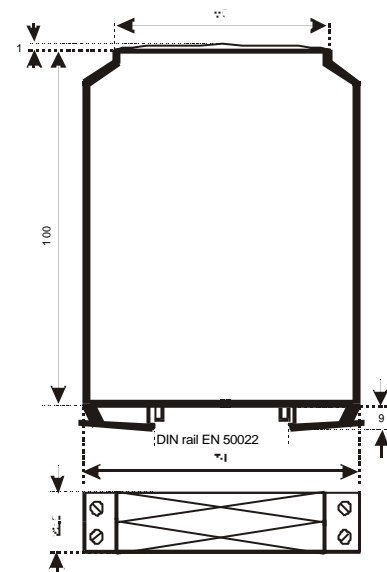
24V AC/DC version	76g
230V AC version	150g

Example



The SUM 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