



Current transformer

50A AC/DC TRMS - RS485 MODBUS

S6IA50AM
Part No. 2800010

- 0,5 % Accuracy
- RS485 Modbus integrated
- TRMS measurement (monopolar) or DC (bipolar)
- 0-10V analog output
- Din rail mountable
- Fully configurable by free interface software
- Range: 50A TRMS or 25A TRMS
 - ±50A / ±25A DC bipolar
 - or RS485 customize setting



Technical data

Function

AC/DC current transformer with RS485 Modbus and 0-10V interface.

1. Mechanical design

PBT plastic housing, IP rating IP20

DIN-rail mountable with DIN-rail clips (included) for horizontal/vertical mounting, screw predisposition for horizontal/vertical mounting

Mounting position: any

Dimensions: 46,1 x 63 x 26,4mm (without connectors)
Ø15mm (current transformer)

Terminals: - 1,5mm² 5-pole connector (3,5mm pitch)

DIP-switch: 8 poles (4 x Baudrate, 4 x Address, Monopolar/
Bipolar, 25A/50A)

Weight: 72g

2. Indicators

Yellow LED ON: indication of supply voltage

Yellow LED flashing: indication of communication via RS485

3. Power Supply

Input: 12...30 V DC; terminals Pow(+), GND(-)
Protection against polarity reversal and overtemperature

Absorption: max. 20mA

4. RS485 Modbus RTU

Baudrate: 1200 ... 115200 Baud (Standard: 9600);
terminals GND, A+, B-

Response time: 30ms

5. Analog output

Output range: 0-10V

Response time: 1000ms

6. Measuring circuit

Type of Measure: TRMS (monopolar) or DC (bipolar)

Range: 50A / 25A (DIP-switch setting)
bipolar ±50A DC / ±25A DC (DIP-switch setting),
RS485 customize setting

Crest factor: 2

Working frequency: 20 ... 2000Hz or DC

Overload: 2000A pulse, 300A continuous

Hysteresis: 0,15% f.s.

Resolution: 12 bit

7. Accuracy

Current: < 0,5% f.s.

8. General specifications

Temperature coefficient: < 200 ppm/°C

Operation temperature: -15 to +65°C

Storage temperature: -40 to +85°C

Humidity: 10 to 90% (not condensing)

Altitude: Up to 2000m above sea level

Isolation: 3kV on bare wire

Standards: EN55022: 2010-12;

EN55024: 2010-11;

Configuration: With software or via RS485 Modbus.
Communication to free interface program for configuration of all the available parameters

Remarks:

- Modbus connections: A+ and B- as per Modbus RTU standards
- Modbus Register reference: with reference to the logical address, for ex. 40010, corresponds to physical address n°9 as per Modbus RTU standard
- Dip Switch Settings: the setting is not enabled if the first four dip-switches are set to 0000, the rest of dip-switch are disabled. All settings coming from EEPROM.
- Modbus functions supported: 3 (Read multiple registers, max 4), 6 (Write single).
- **Any changes made by dip-switch requires to reset via power supply or sending reset command**

DIP-switch:

Description	DIP-switch							
	1	2	3	4	5	6	7	8
All setting from EEPROM	0	0	0	0				
ADD = 1	0	0	0	1				
ADD = 2	0	0	1	0				
ADD = 15	1	1	1	1				
2400 Baudrate					0	0		
9600 Baudrate					0	1		
38400 Baudrate					1	0		
57800 Baudrate					1	1		
Monopolar (TRMS)							0	
Bipolar (mean value)							1	
50A measuring range								0
25A measuring range								1

Configuration software

The free interface software is downloadable from our website

www.tele-online.com/products/sensact

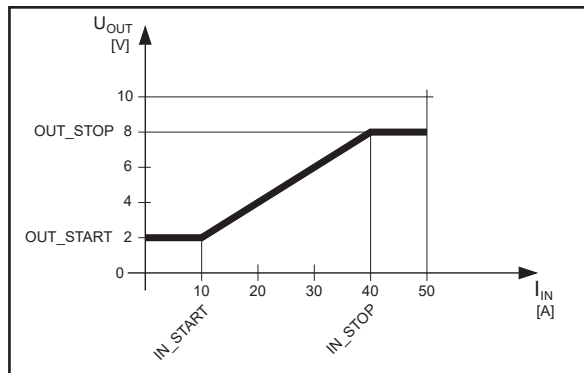
To communicate with the module you have to connect via USB port directly on your PC using the serial converter S-USB485; part No. 498513.

You can configure the module via RS485 using the register map downloadable at www.tele-online.com/products/sensact

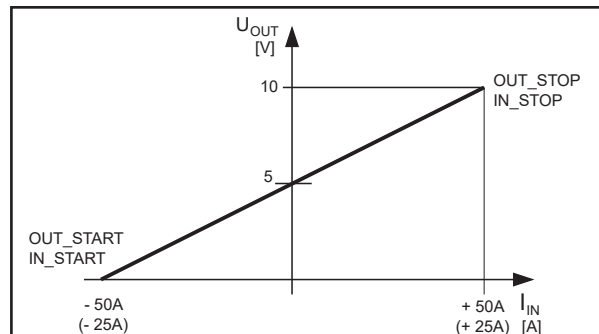
Input / Output diagram

Example:

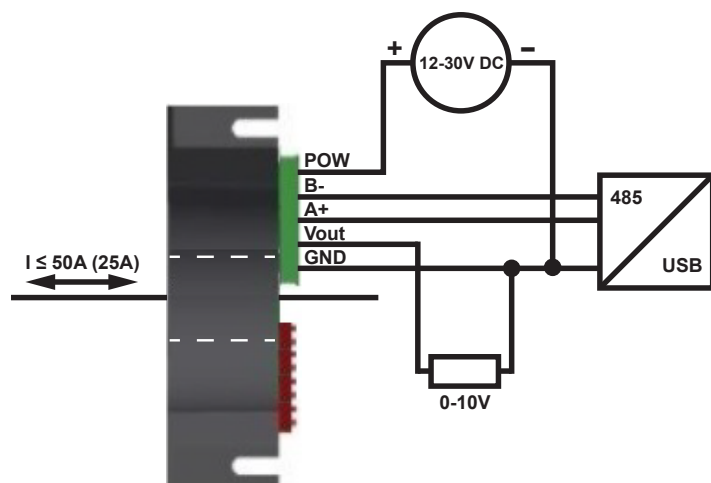
OUT_START: 2V
OUT_STOP: 8V
IN_START: 10A
IN_STOP: 40A



Bipolar

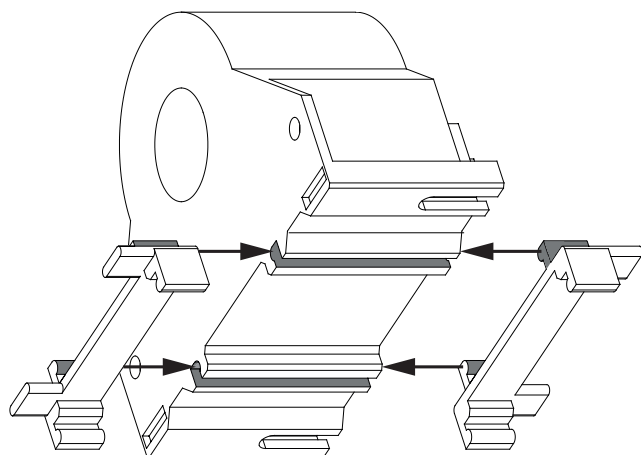


Connections

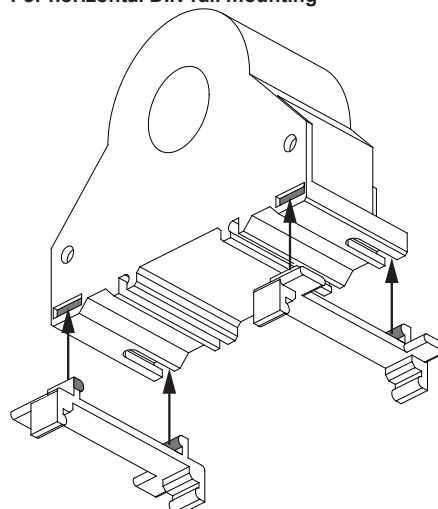


Positioning clips for DIN-rail

For vertical DIN-rail mounting



For horizontal DIN-rail mounting



TELE Haase Steuergeräte Ges.m.b.H.
Vorarlberger Allee 38
AT-1230 Vienna, AUSTRIA

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Subject to alterations and errors

