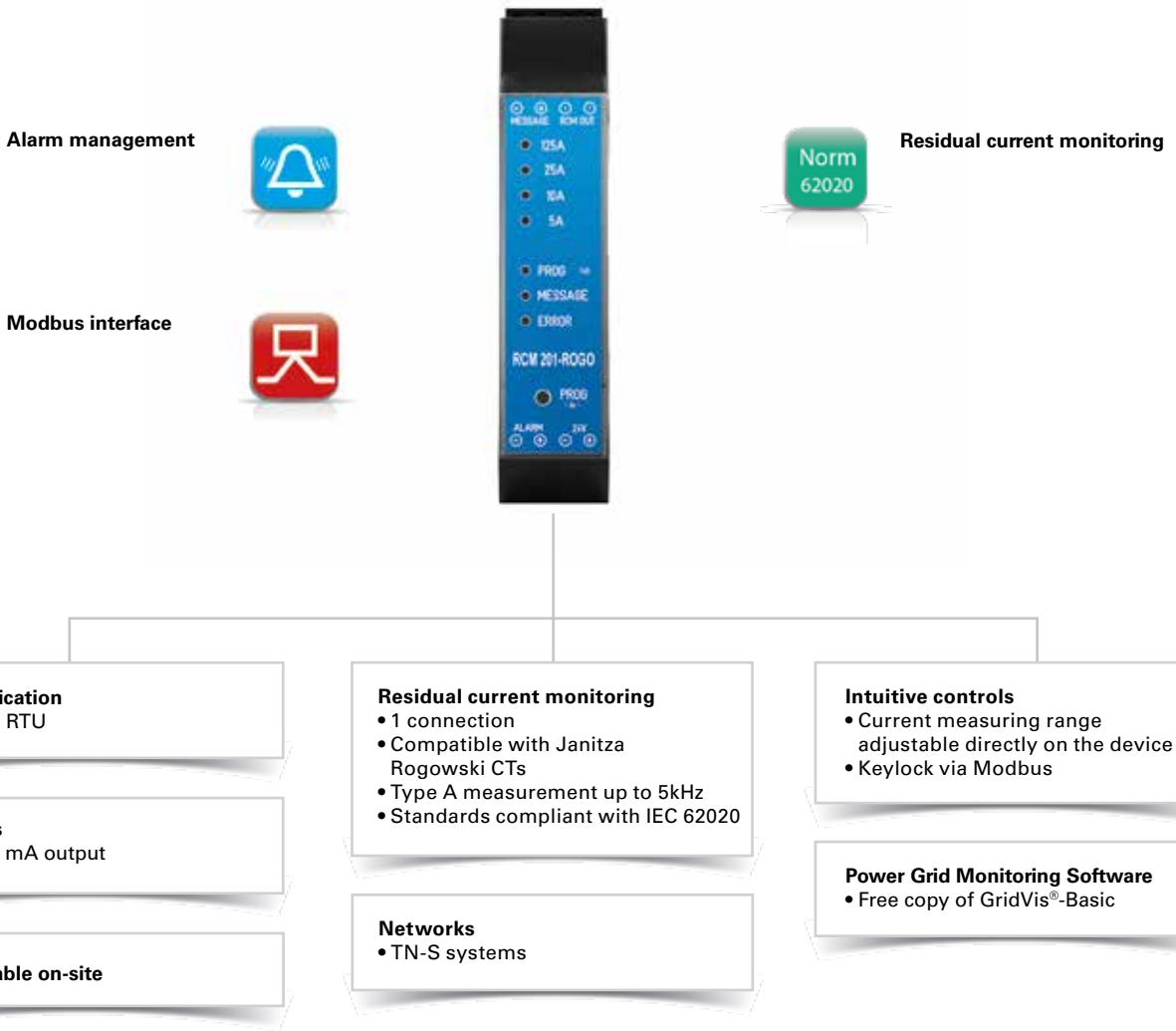
RCM 201-ROGO

Residual current monitoring device, type A, for Rogowski CTs



Communication
- Modbus RTU

Interfaces
- 1 x 0–40 mA output

Configurable on-site

Residual current monitoring
- 1 connection
- Compatible with Janitza Rogowski CTs
- Type A measurement up to 5kHz
- Standards compliant with IEC 62020

Networks
- TN-S systems

Intuitive controls
- Current measuring range adjustable directly on the device
- Keylock via Modbus

Power Grid Monitoring Software
- Free copy of GridVis®-Basic

Areas of application

- Residual current monitoring in:
  – Industrial plants
  – Data centres
  – Hospitals
- Standards compliant measurement to minimize DGUV V3

Main features

High measurement accuracy
- From 2% to final value
- Measurement of residual currents in the measurement ranges 5 / 10 / 25 / 125 A

Standards – compliant to IEC 62020
- Recording, evaluation and monitoring of type A residual currents

Retrofittable
- Rogowski RCM current transformers for large cable cross sections and busbars up to 4000 A

Alarm function
- Configurable limit values and alarm output via digital output and Modbus

Communication
- RS485 interface (protocol Modbus RTU)
- Compatible with all communication-enabled Janitza Modbus master devices

Device overview and technical specifications

	Rogowski coils
Item number (diameter 120 mm)	**15.03.615**
Item number (diameter 200 mm)	**15.03.616**
Item number (diameter 290 mm)	**15.03.617**
Item number (diameter 390 mm)	**15.03.618**
Item number (diameter 580 mm)	**15.03.619**
Diameter	120, 200, 290, 390, 580 mm
Cable length connection line	3.0 m
Lock	Bayonet
Operating temperature	–30 °C to +80 °C (–22 °F ... 176 °F)
Storage temperature	–40 °C to +80 °C (–40 °F ... 176 °F)
Secondary voltage	100 mV/1kA @ 50 Hz
Overvoltage category	1000 Veff CAT III 600 Veff CAT IV
Protection class	IP67

	RCM 201-AB	
Item number	**15.03.614**	
Dimensions	22.5 x 100 x 110 mm (B x H x T) 0.89 x 3.94 x 4.33 in (w x h x d)	
Weight	approx. 0.2 kg (0.44 lb)	
Power supply	24 V_{DC} / 0.1 A	
Connections	Screw terminal (max. 2,5 mm²)	
Rogowski loop connection	Mini-Din 4-pole	
Rated response differential current measuring ranges	2.5 A – 125 A 0.5 A – 25 A 0.2 A – 10 A 0.1 A – 5 A	
Current measuring range setting	Manually using the key (> 3 sec) or Modbus (measuring range selection via micro-controller and PGA)	
Signal and alarm output test	Manually using the key (> 6 sec) or Modbus	
Operation and measuring range display	Measuring range display: Measuring range selection: Signal output: Alarm output:	LED green LED yellow LED yellow LED red
Nominal input voltage	100 µV / A	
Current output	0 – 40 mA ~	
Max. current output for load = 0 Ω	70 mA ~	
Overload current (duration)	50 kA	
Overload current (max. 1 sec)	100 kA	
Transmission error	40 Hz ... 60 Hz < 1%	
	60 Hz ... 5 kHz < 5%	
Rated frequency	40 Hz – 5 kHz	
Load (40 mA output)	0 – 10 Ω	
Operating lock	via MODBUS	
Alarm output potential-free (Opto) (Programming via MODBUS)	**Transistor output 24 V_{DC} / 100 mA**	
Output	Alarm normal (NO) Alarm inverted (NC)	
Alarm functions	Residual current level Measurement loop circuit Overtemperature Undervoltage (24 V) Internal error	
Response differential current alarm output	10% – 100% (0.5% steps)	
Hysteresis response differential current level	5% (0 – 30%)	
Response time alarm output	10 s (1 – 255 s)	

Alarm output potential-free (Opto)	**Transistor output 24 V_{DC} / 100 mA**
Signal output functions	Residual current level normal (NO) Residual current inverted (NC)
Response residual current signal output	5% – 100% (0.5% steps)
Signal output hysteresis	5% (0 – 30%)
Signal output response time	5 s (1 s – 255 s)

Interface	**RS485 (electrically isolated)**
Communication protocol	MODBUS RTU
Baud rate	9600 – 250000; programmable via Modbus
Adress	1 (1 – 255); programmable via Modbus
Protection class	IP30
Operating temperature	–20 °C ... 50 °C (–4 °F ... 122 °F)
Storage temperature	–25 °C ... 85 °C (–13 °F ... 185 °F)

Note: in order to ensure smooth operation of the Rogowski coils, a combination of the coil and the Janitza measurement transducer "RCM 201-ROGO" is always necessary! Additionally a 24 V DC power supply is needed. The combination of the coil and the measurement transducer is not compatible with the UMG 20CM.

Comment: For detailed technical information please refer to the operation manual and the Modbus address list.

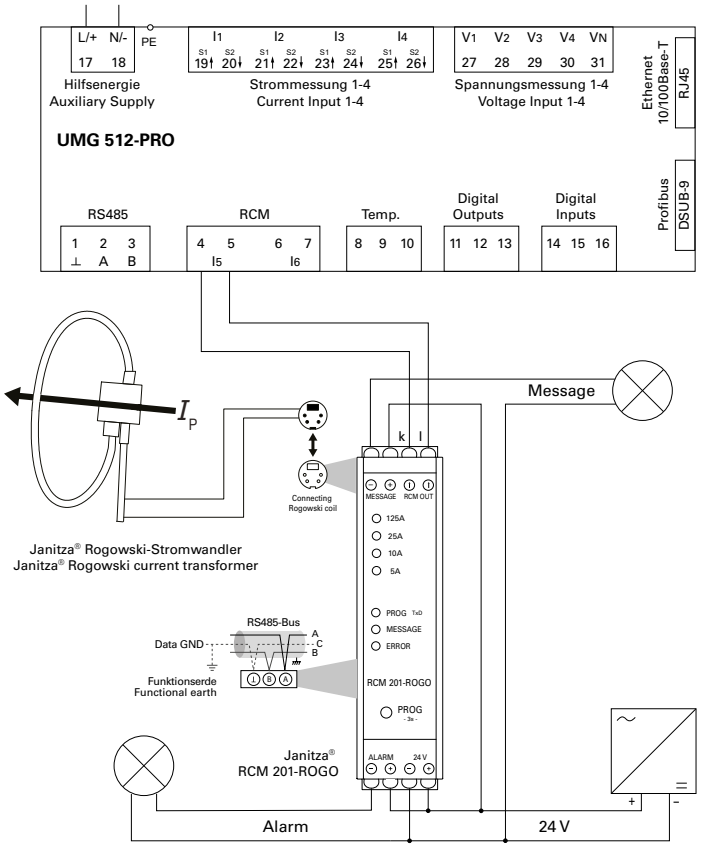


Fig.: Connection example to an UMG 512-PRO