

- ▶ AC/DC current monitoring in 1-phase mains
- ▶ Overcurrent monitoring
- ▶ Supply voltage selectable via power modules
- ▶ 1 change-over contact
- ▶ Width 22.5mm
- ▶ Industrial design



## Technical data

### 1. Functions

AC/DC overcurrent monitoring in 1-phase mains with adjustable threshold and hysteresis and adjustable tripping delay

### 2. Time ranges

	Adjustment range
Start-up suppression time:	-
Tripping delay:	0.2s      10s

### 3. Indicators

Green LED ON:	indication of supply voltage
Yellow LED ON/OFF:	indication of relay output
Red LED ON/OFF:	indication of failure of the corresponding threshold
Red LED flashing:	indication of tripping delay of the corresponding threshold

### 4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40  
 Mounted on DIN-Rail TS 35 according to EN 50022  
 Mounting position: any  
 Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20  
 Tightening torque: max. 1Nm  
 Terminal capacity:  
 1 x 0.5 to 2.5mm<sup>2</sup> with/without multicore cable end  
 1 x 4mm<sup>2</sup> without multicore cable end  
 2 x 0.5 to 1.5mm<sup>2</sup> with/without multicore cable end  
 2 x 2.5mm<sup>2</sup> flexible without multicore cable end

### 5. Input circuit

Supply voltage: 12 to 400V AC	terminals A1-A2 (galvanically separated) selectable via power modules TR2
Tolerance:	according to specification of power module
Rated frequency:	according to specification of power module
Rated consumption:	2VA (1.5W)
Duration of operation:	100%
Reset time:	500ms
Residual ripple for DC:	-
Drop-out voltage:	>30% of the supply voltage
Overvoltage category:	III (according to IEC 60664-1)
Rated surge voltage:	4kV

### 6. Output circuit

1 potential free change-over contact	
Rated voltage:	250V AC
Switching capacity (distance <5mm):	750VA (3A / 250V AC)
Switching capacity (distance >5mm):	1250VA (5A / 250V AC)

Fusing:	5A fast acting
Mechanical life:	20 x 10 <sup>6</sup> operations
Electrical life:	2 x 10 <sup>5</sup> operations at 1000VA resistive load
Switching frequency:	max. 60/min at 100VA resistive load max. 6/min at 1000VA resistive load (according to IEC 947-5-1)
Overvoltage category:	III (according to IEC 60664-1)
Rated surge voltage:	4kV

### 7. Measuring circuit

Measured variable:	DC or AC Sinus (48 to 63Hz)
Input:	terminals K-I1(+) terminals K-I2(+) terminals K-I3(+)
20mA AC/DC	
1A AC/DC	
5A AC/DC	
Overload capacity:	250mA 3A 10A
Input resistance:	2.7Ω 47mΩ 10mΩ
20mA AC/DC	
1A AC/DC	
5A AC/DC	
Switching threshold:	10% to 100% of I <sub>N</sub> 5% to 95% of I <sub>N</sub>
Max	
Min	
Overvoltage category:	III (according to IEC 60664-1)
Rated surge voltage:	4kV

### 8. Accuracy

Base accuracy:	±5% (of maximum scale value)
Frequency response:	-10% to +5% (48 to 63Hz)
Adjustment accuracy:	≤5% (of maximum scale value)
Repetition accuracy:	≤2%
Voltage influence:	-
Temperature influence:	≤0.1% / °C

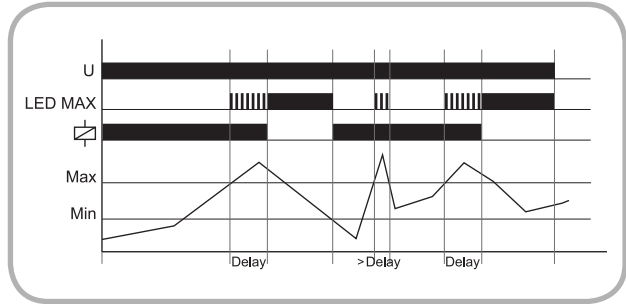
### 9. Ambient conditions

Ambient temperature:	-25 to +55°C (according to IEC 68-1) -25 to +40°C (according to UL 508)
Storage temperature:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative humidity:	15% to 85% (according to IEC 721-3-3 class 3K3)
Pollution degree:	3 (according to IEC 60664-1)
Vibration resistance:	10 to 55Hz 0.35mm (according to IEC 68-2-6)
Shock resistance:	15g 11ms (according to IEC 68-2-27)

## Functions

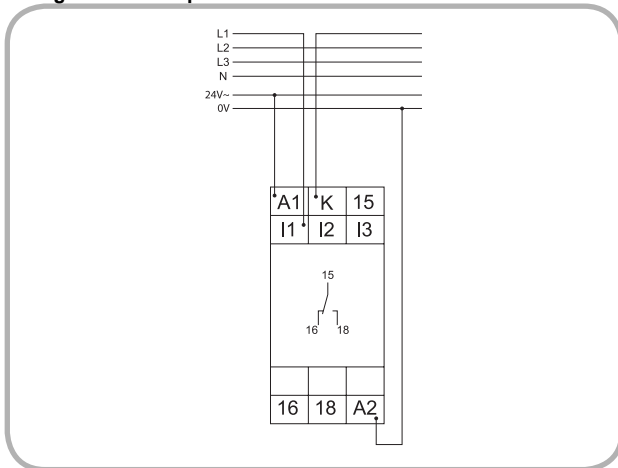
### Overcurrent monitoring (OVER)

When the measured current exceeds the value adjusted at the MAX-regulator, the set interval of the tripping delay (DELAY) begins (red LED MAX flashes). After the interval has expired (red LED MAX illuminated), the output relay switches into off-position (yellow LED not illuminated). The output relay again switches into on-position (yellow LED illuminated), when the measured current falls below the value adjusted at the MIN-regulator (red LED MAX not illuminated). For all the functions the LEDs MIN and MAX are flashing alternating, when the minimum value for the measured current was chosen to be greater than the maximum value.

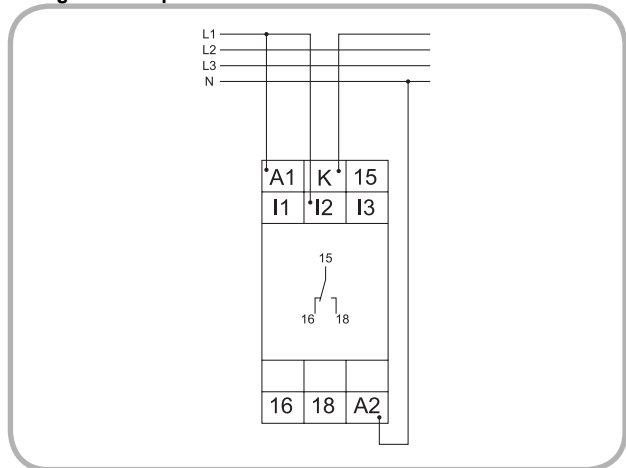


## Connections

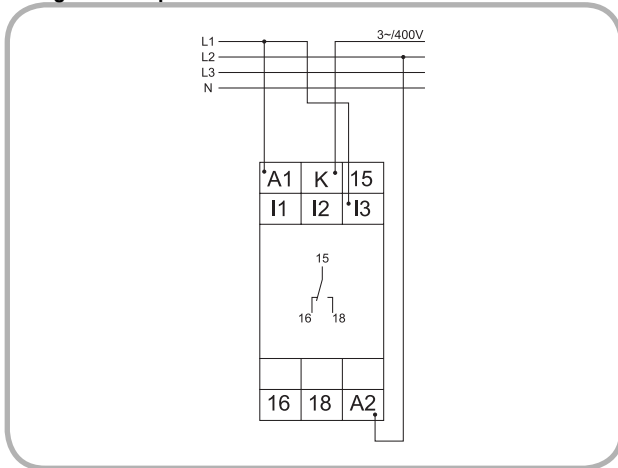
### Range 20mA with power modul 24V AC



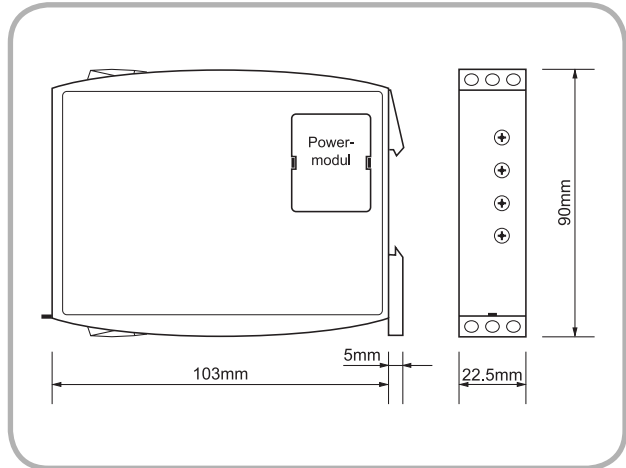
### Range 1A with power modul 230V AC



### Range 5A with power modul 400V AC



## Dimensions



Subject to alterations and errors