

# Monitoring Relay MR50



- Input standard signals 0/4..20 mA, 0/2..10 V DC
- Measuring range programmable
- Max. 4 alarm outputs
- Isolated analog output 0/4..20 mA, 0/2..10 V DC

## Characteristics

The Monitoring Relay MR50 has inputs for industry standard signals 0/4..20 mA and 0/2..10 V DC. Measuring value and programmed unit are shown in the display. The integrated transmitter supply offers direct connection of loop powered sensors. Simple programming, up to 4 alarm outputs (SPDT) and optional available fully isolated free programmable analog output 0/4..20 mA; 0/2..10 V DC meets the demand for different applications.

## Technical data

### Power supply

Supply voltage : 230 V AC  $\pm 10\%$ , 115 V AC  $\pm 10\%$ , or 24 V DC  $\pm 15\%$

Power consumption : max. 5 VA

### Operating

temperature : -10..+55 °C

CE-conformity : EN 61326-1:2013

EN 60664-1:2007

Input : 0/4..20 mA; 0/2..10 V DC

Ri : current 10  $\Omega$ ,  
voltage 10 k $\Omega$

Fault detection : break of wire

Accuracy : <0,1 %,  $\pm 1$  Digit

Transmitter supply : 24 V DC max. 30mA

### Outputs

Relay SPDT : < 250 V AC < 250 VA < 2 A  
 $\cos\phi \geq 0.3$ , < 300 V DC < 40 W < 2 A

Analog output : 0/4..20 mA, burden  $\leq 500 \Omega$ ;  
0/2..10 V burden >500  $\Omega$ , isolated,  
output changes automatically  
(burden dependent)

Accuracy : 0.2 %;TK 0.01 %/K

### Fault function at break of wire:

→ Analog output : 0 mA, < 3.6 mA or >21.5 mA

→ Alarm contact(s) : min. or max. programmable

Display : graphic LCD-display with 128 x 64 Pixel,  
and white back-light

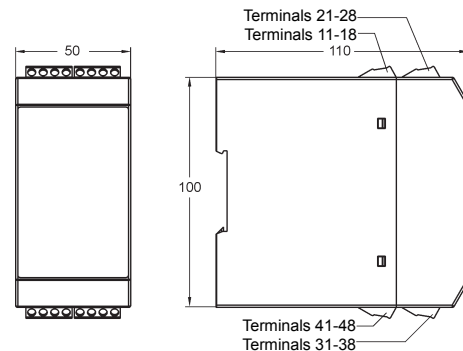
Case : Polyamide (PA) 6.6 , UL94V-0  
acc. to DIN EN 60715

Weight : approx. 450 g

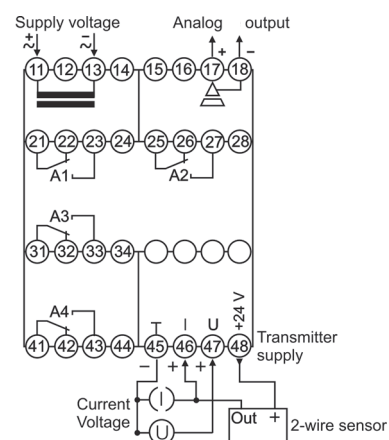
Connection : screw terminals 0.14..2.5 mm<sup>2</sup>  
(AWG 26..14)

Protection class : case IP30, terminals IP20, BGV A3

## Dimensions



## Connection diagram



## Ordering code

MR50 -  1. -  2. -  3. -  4. -  5. -  6.

1. Input	
1	standard signals 0/4..20 mA, 0/2..10 V DC, transmitter supply 24 V DC, max. 30 mA
2. Alarm output A1, A2	
2R	2 relays SPDT
3. Alarm output A3, A4	
00	not installed
2R	2 relays SPDT
4. Analog output	
00	not installed
AO	0/4..20 mA, 0/2..10 V DC
5. Supply voltage	
0	230 V AC, $\pm 10\%$ 50-60 Hz
1	115 V AC, $\pm 10\%$ 50-60 Hz
5	24 V DC, $\pm 15\%$
6. Options	
00	without option