

- ▶ Level monitoring of conductive liquids
- ▶ Multifunction
- ▶ Secure isolation of the measuring circuit
- ▶ 2 change-over contacts
- ▶ Width 22.5mm
- ▶ Industrial design



Technical data

1. Functions

Level monitoring of conductive liquid, timing for tripping delay and turn-off delay separately adjustable and the following functions (selectable by means of rotary switch)

Pump up pump up or minimum monitoring
 Pump down pump down or maximum monitoring

2. Time ranges

	Adjustment range	
Tripping delay:	0.5s	10s
Turn-off delay:	0.5s	10s

3. Indicators

Green LED ON: indication of supply voltage
 Yellow LED ON/OFF: indication of relay output

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 2.5mm² with/without multicore cable end
 1 x 4mm² without multicore cable end
 2 x 0.5 to 1.5mm² with/without multicore cable end
 2 x 2.5mm² flexible without multicore cable end

5. Input circuit

Supply voltage:			
24V AC	terminals A1-A2	(G2LM20 24VAC)	
110V AC	terminals A1-A2	(G2LM20 110VAC)	
230V AC	terminals A1-A2	(G2LM20 230VAC)	
Tolerance:			
24V AC	-15% to +10%	(G2LM20 24VAC)	
110V AC	-15% to +10%	(G2LM20 110VAC)	
230V AC	-15% to +15%	(G2LM20 230VAC)	
Rated frequency:	48 to 63Hz		
Rated consumption:			
24V AC	2VA (1.5W)	(G2LM20 24VAC)	
110V AC	2VA (1.5W)	(G2LM20 110VAC)	
230V AC	2VA (1.5W)	(G2LM20 230VAC)	
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

2 potential free change-over contacts
 Rated voltage: 250V AC
 Switching capacity (distance <5mm): 750VA (3A / 250V)
 Switching capacity (distance >5mm): 1250VA (5A / 250V)
 Fusing: 5A fast acting
 Mechanical life: 20 x 10⁶ Operations
 Electrical life: 2 x 10⁵ Operations at
 1000VA resistive load
 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

Input: conductive probes (type SK1, SK2, SK3) terminals E1-E2-E3
 Switching threshold: 0.25 to 100kΩ (4mS to 1μS)
 Sensor voltage: max. 16V AC
 Sensor current max. 7mA
 Wiring distance (capacity of cable 100nF/km)
 max. 1000m (set value <50%)
 max. 100m (set value 100%)
 Overvoltage category: III (according to IEC 60664-1)
 Rated surge voltage: 6kV

8. Accuracy

Base accuracy: -
 Adjustment accuracy: -
 Repetition accuracy: -
 Voltage influence: -
 Temperature influence: -

9. Ambient conditions

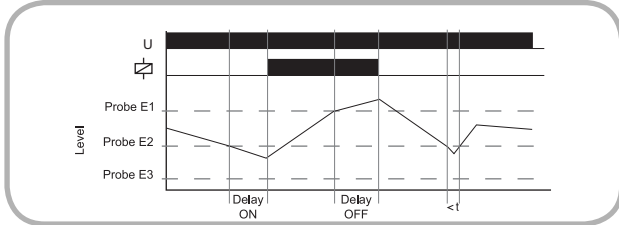
Ambient temperature: -25 to +55°C (according to IEC 68-1)
 -25 to +40°C (according to UL 508)
 Storage temperature: -25 to +70°C
 Transport temperature: -25 to +70°C
 Relative humidity: 15% to 85%
 (according to IEC 721-3-3 class 3K3)
 Pollution degree: 3 (according to IEC 664-1)
 Vibration resistance: 10 to 55Hz 0.35mm
 (according to IEC 68-2-6)
 Shock resistance: 15g 11ms (according to IEC 68-2-27)

Functions

Pump up

Connection of the probe rods E1, E2 and E3. Alternatively the electrically conducting container can be connected in lieu of the test probe E3.

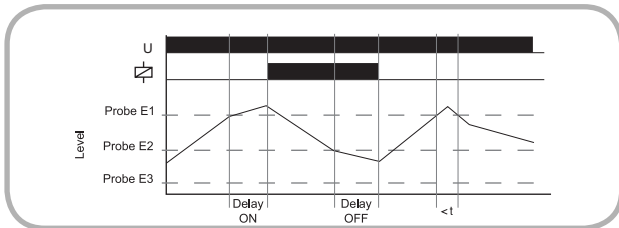
When the air-fluid level falls below the minimum probe E2 the set interval of the tripping delay (DELAY ON) begins. After the expiration of the interval the output relays switch into on-position (yellow LED illuminated). When the air-fluid level again rises above the maximum probe E1, the set interval of the turn-off delay (DELAY OFF) begins. After the expiration of the interval the output relays switch into off-position (yellow LED not illuminated).



Pump down

Connection of the probe rods E1, E2 and E3. Alternatively the electrically conducting container can be connected in lieu of the test probe E3.

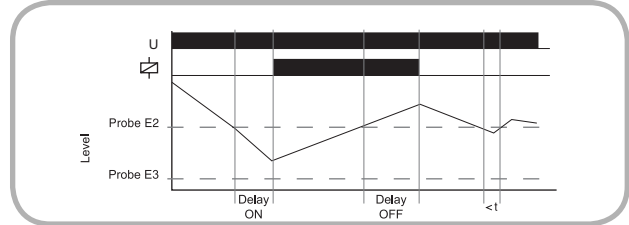
When the maximum probe E1 gets moistened the set interval of the tripping delay (DELAY ON) begins. After the expiration of the interval the output relays switch into on-position (yellow LED illuminated). When the air-fluid level falls below the minimum probe E2, the set interval of the turn-off delay (DELAY OFF) begins. After the expiration of the interval the output relays switch into off-position (yellow LED not illuminated).



Minimum monitoring (Pump up)

Connection of probe rods E2 and E3 (Bridge E1-E3). Alternatively the electrically conducting container can be connected in lieu of the test probe E3.

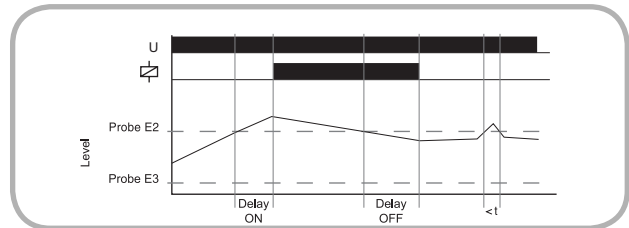
When the air-fluid level falls below the probe E2 the set interval of the tripping delay (DELAY ON) begins. After the expiration of the interval the output relays switch into on-position (yellow LED illuminated). When the air-fluid level again rises above the probe E2, the set interval of the turn-off delay (DELAY OFF) begins. After the expiration of the interval the output relays switch into off-position (yellow LED not illuminated).



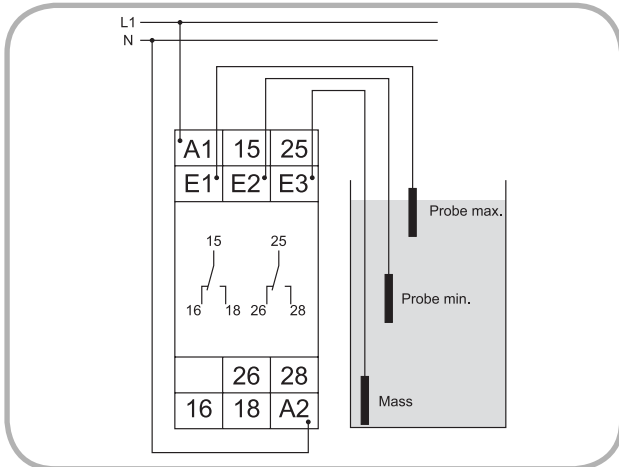
Maximum monitoring (Pump down)

Connection of probe rods E2 and E3 (Bridge E1-E3). Alternatively the electrically conducting container can be connected in lieu of the test probe E3.

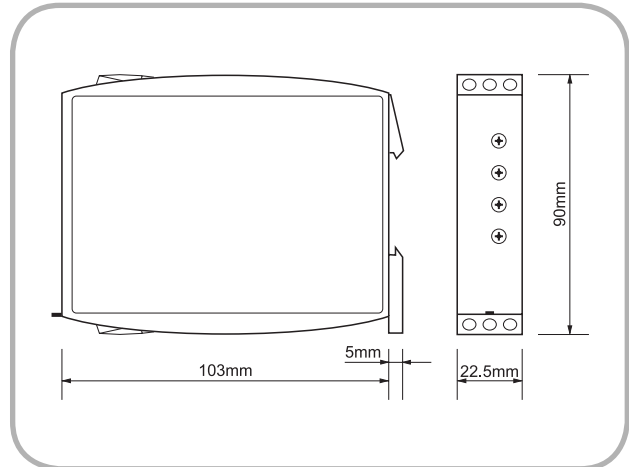
When the probe E2 gets moistened the set interval of the tripping delay (DELAY ON) begins. After the expiration of the interval the output relays switch into on-position (yellow LED illuminated). When the air-fluid level sinks below the probe E2, the set interval of the turn-off delay (DELAY OFF) begins. After the expiration of the interval the output relays switch into off-position (yellow LED not illuminated).



Connections



Dimensions



Subject to alterations and errors