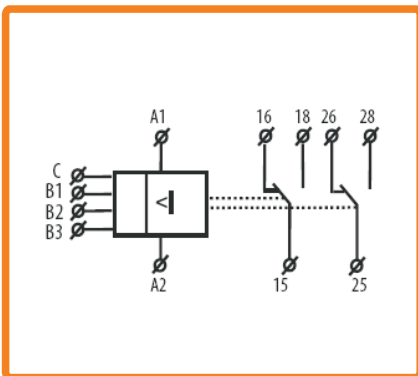


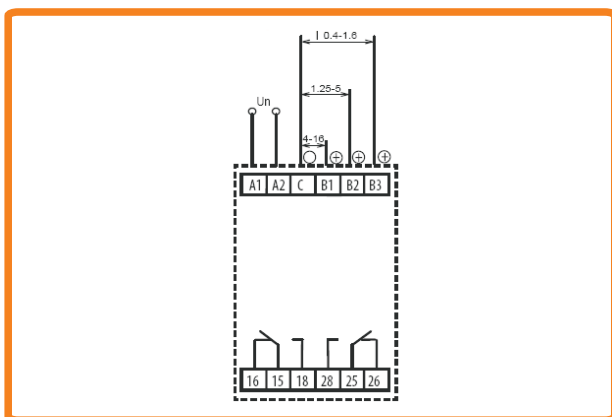


- To monitor overloading / discharge (machine, motor...), load sensing, diagnostics of remote device (interruption, short circuit, current consumption increase...)
- Monitors AC/DC 1-phase current in 3 ranges
- Monitoring adjusted current in 2 independent levels
- MCR 41: "HYSTERESIS" function and MCR 42: "WINDOW" function
- function of 2nd relay (independent/parallel):
 - "MEMORY" function - manual reset.
 - "RESET" button on the frontal panel.
- Adjustable time delay for each level
- Galvanically separated supply
- Output contact: 1x changeover/ SPDT 16 A / 250 V AC1 for each current level
- 3-MODULE, DIN rail mounting

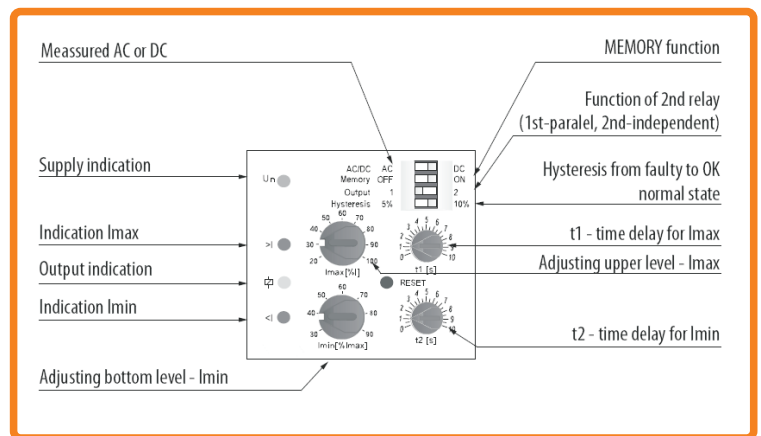
Symbol



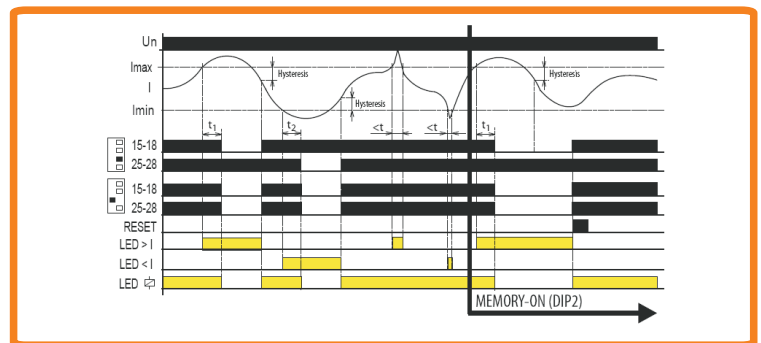
Connection



Description



Function



Relay is delivered in two versions - according to setting and level monitoring. MCR 41 has function hysteresis, which means that you set only upper level (I_{max}) and lower level is set in % from upper level. Therefore when upper level is changed, lower level changes automatically. MCR 42 has function "WINDOW", which means that you set upper level (I_{max}) and lower level (I_{min}) individually in % of rated monitored range. Both types have selectable function MEMORY. In case the relay gets to faulty state, this function leaves relay in this state until it is reset by RESET button. DIP switch No. 3 can be used to choose if output relay should switch for each level separately, or in parallel in case any current level is exceeded. DIP switch No. 4 serves to set hysteresis which applies when changing from faulty to normal state. Relay is protected against re-poling of DC current, or wrong AC/DC current (this fault is indicated by LED <I a LED >I common flashing).

Current monitoring relay

MCR 41, MCR 42

Technical data	MCR 41		MCR 42
Supply terminals	A1- A2		
Voltage range	AC 230 V or AC / DC 24 V (AC 50 - 60 Hz)		
Burden	max. 4.5 VA		
Operating range	-15 %; +10 %		
Measuring circuit			
Ranges	4 - 16 A (AC 50 Hz)	1.25 - 5 A (AC 50 Hz)	0.4 - 1.6 A (AC 50 Hz)
Terminals	C - B1	C - B2	C - B3
Input resistance	5 mΩ	11 mΩ	50 mΩ
Max. permanent current	16 A	5 A	1.6 A
Inrush overload <1ms	20 A	6.3 A	2 A
Time delay for I_{max}	adjustable 0-10 sec		
Time delay for I_{min}	adjustable 0-10 sec		
Accuracy			
Measuring accuracy	5 %		
Repeat accuracy	<1 %		
Temperature dependancy	< 0.1 % / °C		
Limit values tolerance	5 %		
Hysteresis (fault to OK)	selectable 5 % / 10 %		
Output			
Number of contacts	changeover / SPDT (AgNi / Silver Alloy)		
Current rating	16 A / AC1		
Breaking capacity	4000 VA / AC1, 384 W / DC		
Inrush current	30 A / < 3 s		
Switching voltage	250 V AC1 / 24 V DC		
Min. breaking capacity DC	500 mW		
Output indication	yellow LED		
Mechanical life	3×10^7		
Electrical life (AC1)	0.7×10^5		
Other information			
Operating temperature	-20 ... +55 °C		
Storage temperature	-30 ... +70 °C		
Electrical strenght	4 kV (supply - output)		
Operating position	any		
Mounting	DIN rail EN 60715		
Protection degree	IP 40 from front panel / IP 20 terminals		
Overvoltage category	III.		
Pollution degree	2		
Max. cable size (mm ²)	solid wire max. 1x 2.5 or 2x1.5/ with sleeve max. 1x1.5		
Dimensions	90 x 52 x 65 mm		
Weight	239 g		
Standards	EN 60255-6, EN 61010-1		