

Current and Voltage Controls

1-Phase Max. and Min. Current Control

Type H 479

CARLO GAVAZZI



- AC current metering relay
- Measuring range: 0.5 - 500 AAC with 1-phase current metering transformer, type MI...
- Upper and lower current limits separately adjustable
- Output: 8 A DPDT relay
- For mounting on DIN-rail in accordance with DIN/EN 50 022
- H4-housing
- LED-indication for power supply and output ON
- AC power supply

Product Description

1-phase AC current metering relay. For mounting on DIN-rail. Adjustment of upper and lower current values possible.

Often used where a reaction has to be taken e.g. when a motor exceeds the set value.

Ordering Key

H 479 166 230

Housing _____
 Type _____
 Output _____
 Power supply _____

Type Selection

Plug	Output	Supply: 24 VAC	Supply: 115 VAC	Supply: 230 VAC
Screw terminals	DPDT	H 479 166 024	H 479 166 115	H 479 166 230

Input Specifications

Input Terminals 7 & 8	Overvoltage cat. III (IEC 60664) nom. voltage: 0.4-4 V _p max. 20 V from current transformer MI ... 9.9 kΩ	
Impedance		
Measuring ranges	Range	Max. current
Types of current transformers	AAC rms	rms
MI 5	0.5 - 5	20 AAC
MI 20	2 - 20	50
MI 100	10 - 100	250 AAC
MI 500	50 - 500	700 AAC

Supply Specifications

Power supply AC types	Overvoltage cat. III (IEC 60664) (IEC 60038) 24 VAC ± 15%, 45 to 65 Hz 115 VAC ± 15%, 45 to 65 Hz 230 VAC ± 15%, 45 to 65 Hz ≤ 40 ms 2 kVAC (rms) (supply/elect.) 4 kV (1.2/50 μs) (line/neutral, line/line), no direct connection to electronics
Rated operational voltage	
Through term. 21 & 22 024	
115	
230	
Voltage interruption	
Dielectric voltage	
Rated impulse withstand volt.	
Rated operational power	2.5 VA

Output Specifications

Output	DPDT relay
Rated insulation voltage	250 VAC (rms) (cont./elect., cont./cont.)
Contact ratings (AgCdO)	μ (micro gap)
Resistive loads AC 1	8 A/250 VAC (2000 VA)
DC 1	0.4 A/250 VDC (100 W)
or	4 A/25 VDC (100 W)
Small inductive loads AC 15	2.5 A/230 VAC
DC 13	5 A/24 VDC
Mechanical life	≥ 30 x 10 ⁶ operations
Electrical life AC 1	≥ 2.5 x 10 ⁵ operations (at max. load)
Operating frequency	≤ 7200 operations/h
Dielectric strength	
Dielectric voltage	≥ 2 kVAC (rms) (cont./elect.)
Rated impulse withstand volt.	4 kV (1.2/50 μs) (cont./elect.) (IEC 60664)



General Specifications

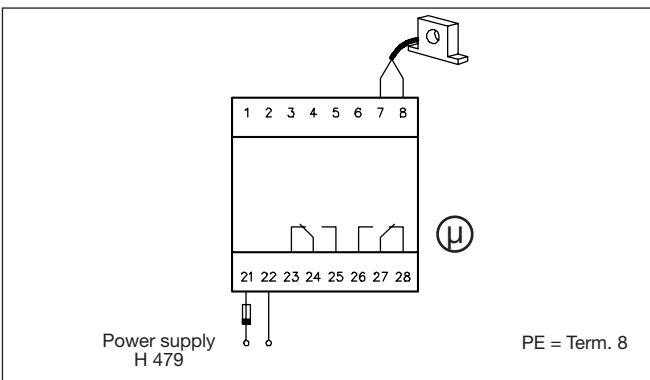
Reaction time	$\tau = 0.2\text{ s}$, worst case reaction time may be up to $5 \times \tau$
Indication for Power supply ON Output ON	LED, green LED, red
Environment Degree of protection Pollution degree Operating temperature Storage temperature	(IEC 60947-1) IP 20 B/front IP 40 D (IEC 60529) 3 (IEC 60664) -20° to +50°C (-4° to +122°F) -50° to +85°C (-58° to +185°F)
Weight	300 g

Mode of Operation

The relay operates when the current is within set points (including hysteresis) and releases when the measured current drops below/exceeds the set points (under and over current monitoring).

If the lower set point is set above the upper set point, the output relay releases and cannot be activated before the lower set point is set lower than the upper set point.

Wiring Diagram



Range Setting

Range setting
Right potentiometer:
Upper limit adjustable from 10 to 100% of max. value of 4 V_p.

Left potentiometer:
Lower limit adjustable from 8 to 98% of max. value of 4 V_p.

Hysteresis
Approx. 1% of set point values.

Accessories

Current metering transformers
MI 5, MI 20, MI 100, MI 500.

For further information refer to "Current Metering Transformers".

Operation Diagram

