

Measuring relay
MMP - Phase measuring relay / phase sequence with 1 c/o
17.5mm housing



Approvals



Mounting

Snap-on mounting using a standard DIN rail EN 50022.
The unit is designed to allow side-by-side mounting, with an ambient temperature of < 60°C.

Application

Correct rotation of three-phase motors.

Description

The **MMP phase measuring relay / phase sequence** measures the phases of a three-phase system (400V AC) for phase sequence and phase failure. The relay is powered by the connection to phase L1 (L1 – N > 170V AC). In addition, the star point (neutral) of the phases to be monitored must be connected. The green LED indicates the connection of the power supply.

Function

The measuring relay switches into its work position as soon as all three phases exceed 170V AC (phases – N) and the phase sequence turns clockwise. This status is indicated by the red LED. The relay switches into its rest position if at least one of the phases falls below the minimum value of 170V AC (phases – N) or a counter clockwise rotation occurs. To measure a possible counter clockwise rotation, simply switch the connections of two of the three phases.

Options

Other voltages available upon request.

Part number

012016

**MMP Phase measuring relay
Phase sequence / 1 Changeover**

Measuring relay
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Technical data

Supply

Supply voltage: 3 x 400V AC / N
 Frequency range: 50 ... 60Hz
 Power consumption: 8VA
 Operating mode: continuous

Operation indicators

Supply voltage: LED, green
 Relay in work position: LED, red

Contact

Number of changeovers: 1
 Contact material: AgSnO₂
 Maximum switching voltage: 250V AC
 Maximum switching current: 4A
 Drop-off time of switching element: approx. 20ms
 Mechanical life: 30 Mio.
 Electrical life (with rated load): 0.8 Mio.

General data

Ambient temperature: - 25 ... + 60°C
 Climate resistance: VDE 0435T.2021
 Mounting position: any
 Vibration resistance: VDE 0435T.2021
 Test voltage: 2.5kV
 Isolation group: VDE 0110 Group C
 250
 Protection class: Terminals IP 20
 Housing IP 40

Connection terminals:

Connection cross section:

2.5mm²

Finger touch protection:

Mounting:

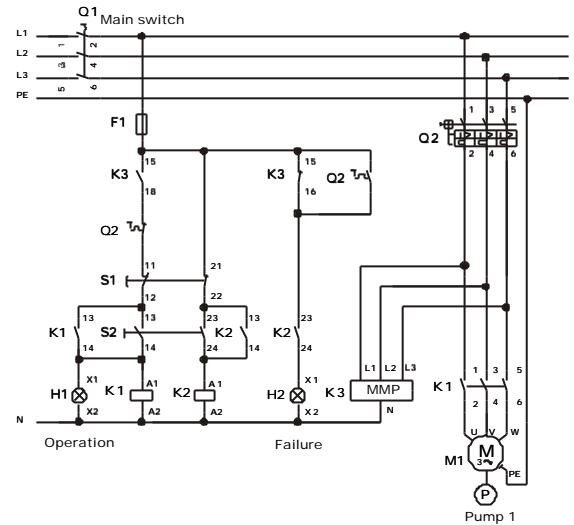
Dimensions l x w x h:

Weight:

Crosshead screws;
 M3.5 self opening
 Multi-strand wire with
 wire sleeves 2 x

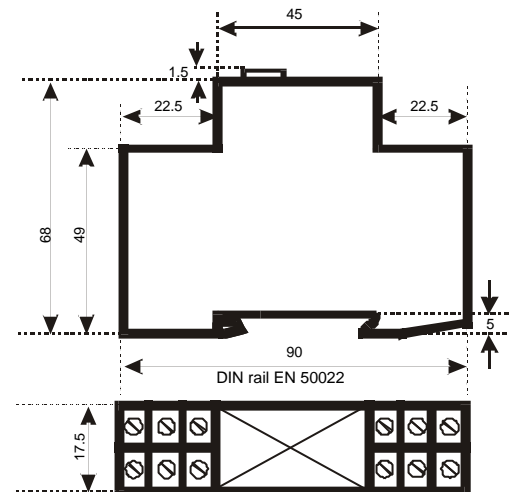
 single wire 2 x 2.5mm²
 VDE 0106T.100 and
 VBG4
 Symmetrical DIN rail
 EN 50022
 90mm x 17.5mm x
 69.5mm
 86g

Example



The MMP monitors the rotation of a pump motor.

Dimensions



Connections

The terminal assignment for the connections is on the front panel of the relay. **Reading the front panel from top to bottom**, the connections are in the following order:

Upper side	Right:	L2 – N – nc
	Left:	L1 – L3 – nc
Lower side	Right:	nc – 15 – 18
	Left:	nc – nc – 16

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