



-power in control



## DATA SHEET



### Phase sequence relays, RMT-111Q96

- With change-over switch
- Clear indication of incorrect connection and phase breakage
- Long-life LED indicators
- Continuous operation
- Q96 housing for flush mounting



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# 1. General information

## 1.1 Application and features

### 1.1.1 Application

The phase sequence relay with relay contacts type RMT-111Q96 is applied for check of the phase sequence of a power plant.

The 400 V<sub>ac</sub> version of the RMT-111Q96 is type-approved by GL, LR and DNV.

A check of the phase sequence is especially required when connecting equipment to a new voltage source, for example when changing from the mains supply of a vessel to the mains at a harbour.

The indicator may furthermore be applied for alarm indication on phase breakage.

The RMT-111Q96 is equipped with two LEDs on the front for indication of the phase condition.

### 1.1.2 Measuring principle

The RMT-111Q96 is connected to all 3 phases of a 3-phase system and registrates the direction of the phase rotation.

If the phase sequence of the supervised power source is correct (L1 - L2 - L3), the LED marked "CORRECT" is lit, and the relay is energised.

If the phase sequence of the supervised power source is incorrect, that is the phase sequence is reversed (L1 - L3 - L2), the LED marked "REVERSED" is lit, and the relay is de-energised.

Should a phase breakage occur, both LEDs will be lit for clear indication of the fault condition, and the relay is de-energised.

### 1.1.3 Relay contacts

The RMT-111Q96 is provided with a change-over switch:

Terminals 1-2 closed: Shore connection OK (relay energised)

Terminals 2-3 closed: Shore connection not OK (relay de-energised)

## 2. Technical information

### 2.1 Technical specifications and dimensions

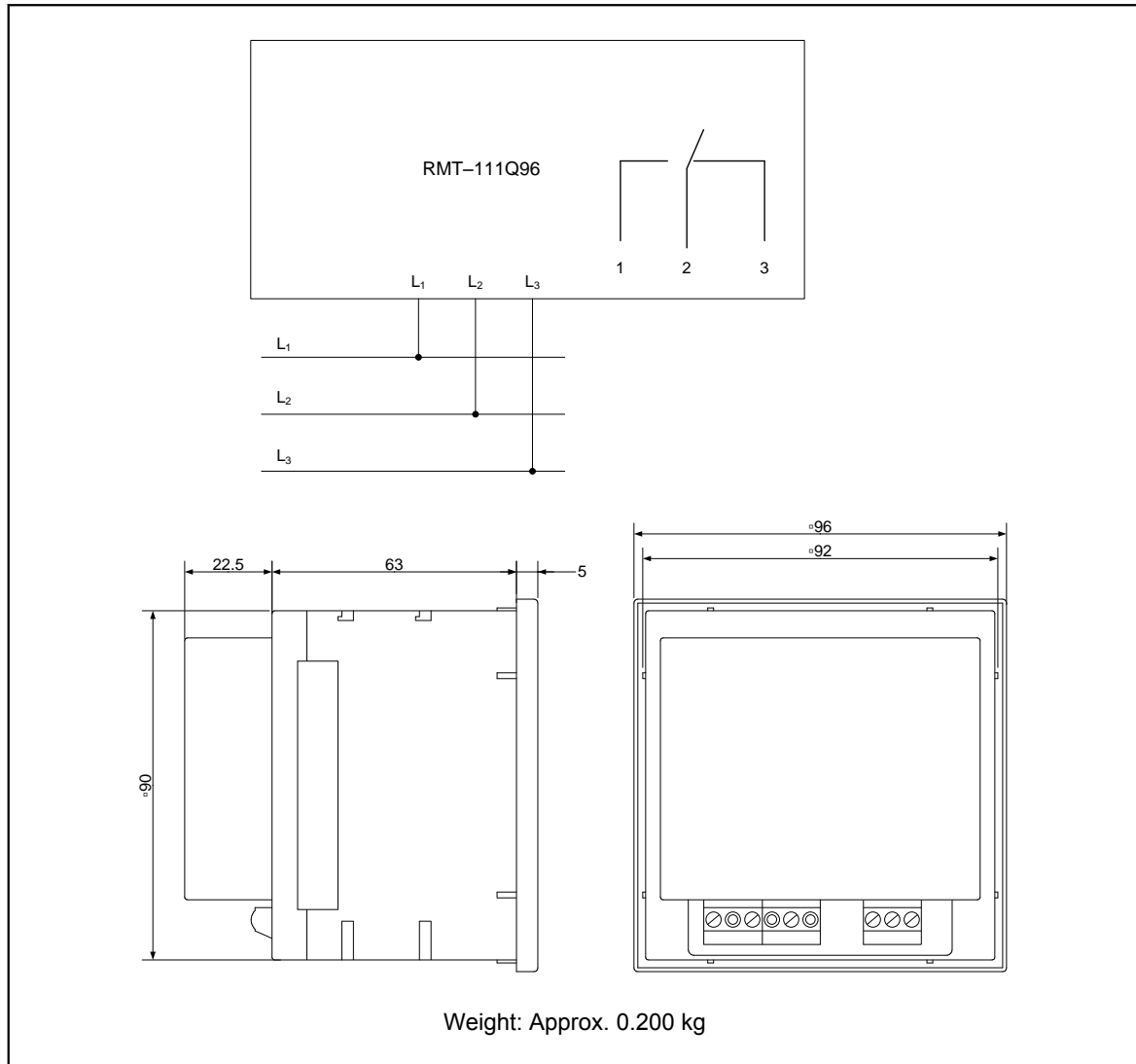
#### 2.1.1 Technical specifications

<b>Meas. voltage</b>	230 V <sub>ac</sub> ±20 % or 400 V <sub>ac</sub> ±20 %
<b>Consumption</b>	Max. 3 W
<b>Frequency range</b>	47 to 63 Hz
<b>Relay output</b>	Change-over switch
<b>Contact ratings</b>	250 V - 6 A - 1500 VA (ac) 24 V - 6 A - 150 W (dc)
<b>Contact voltage</b>	Max. 250 V (ac)

#### 2.1.2 General technical specifications

<b>Temperature</b>	-10 to 55 °C (nominal), -25 to 60 °C (operating), -25 to 65 °C (storage)
<b>Shock test</b>	15 g - 6 times, 3 directions 50 g/6 ms 22 g/20 ms
<b>Climate</b>	HUE, to DIN 40040
<b>EMC</b>	To EN 50081-1/2, EN 50082-1/2, SS4361503 (PL4) and IEC 255-3
<b>Connections</b>	Max. 4.0 mm <sup>2</sup> (single-stranded) Max. 2.5 mm <sup>2</sup> (multi-stranded)
<b>Materials</b>	All plastic parts are self-extinguishing to UL94 (V0)
<b>Protection</b>	Case: IP53. Terminals: IP20, to IEC 529 and EN 60529

### 2.1.3 Connections/dimensions (in mm)



## 3. Ordering information

### 3.1 Order specifications and disclaimer

#### 3.1.1 Available variants

Item no.	Variant no.	Variant description
2918310010	01	RMT-111Q96 All voltages

#### 3.1.2 Order specifications



There are no additional options to the standard variant.

#### Variants

Mandatory information			
Item no.	Type	Variant no.	Measuring voltage

Example:

Mandatory information			
Item no.	Type	Variant no.	Measuring voltage
2918310010-01	RMT-111Q96	01	400 V <sub>ac</sub>

#### 3.1.3 Disclaimer

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