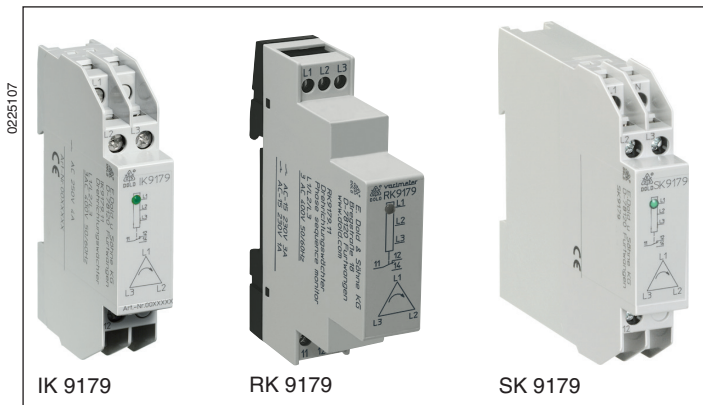


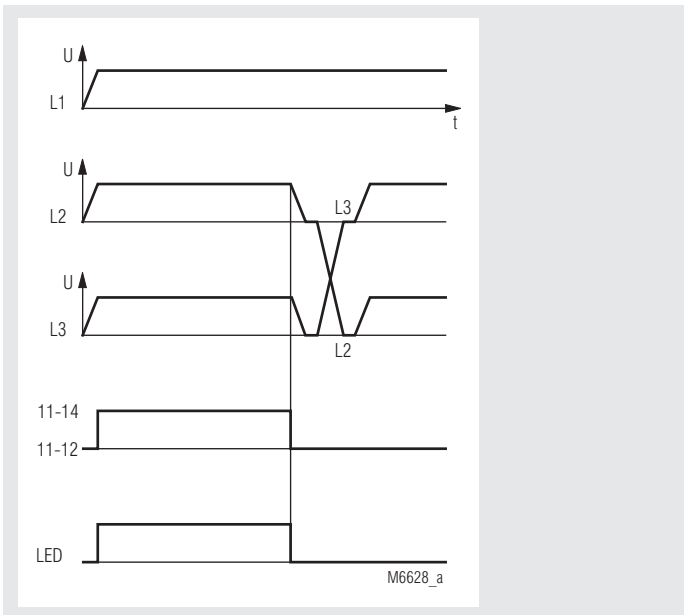
## VARIMETER

Phase Sequence Monitor (Phase Sequence Relay)  
IK 9179, RK 9179, SK 9179



- According to IEC/EN 60255, DIN VDE 0435-303
- Detection of phase sequence in 3-phase systems
- Without auxiliary voltage
- Closed circuit operation
- LED indicator for phase sequence
- Output 1 changeover contact
- **Devices available in 2 enclosure versions:**
  - I- and R-model, e.g. IK 9169 with depth 61 mm or RK 9169 with depth 71 mm with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43 880
  - S-model, e.g. SK 9169 depth 100 mm, with terminals at the top for cabinets with mounting plate and cable duct
- Width 17.5 mm

### Function Diagram



### Approvals and Markings



### Applications

Detection of phase sequence in 3-phase systems. Disable start of motors with fixed direction of rotation in the case of wrong phase sequence

### Indicators

LED: on, when output relay active (contact 11-14 closed)

### Technical Data

#### Input

Nominal voltage  $U_N$ : 3 AC 400 V  
Voltage range: 0.8 ... 1.1  $U_N$   
Nominal frequency: 50 / 60 Hz  
Frequency range: 45 ... 65 Hz

#### Output

#### Contact:

IK 9179.11, RK 9169, SK 9179: 1 changeover contact

Thermal current  $I_{th}$ : 4 A

#### Switching capacity

to AC 15:

NO contact: 3 A / AC 230 V IEC/EN 60 947-5-1

NC contact: 1 A / AC 230 V IEC/EN 60 947-5-1

Electrical life IEC/EN 60 947-5-1

to AC 15 at 1 A, AC 230 V: typ. 300 000 switching cycles

#### Short-circuit strength

max. fuse rating: 4 A gL IEC/EN 60 947-5-1

Mechanical life:  $\geq 30 \times 10^6$  switching cycles

### General Data

Operating mode: Continuous operation

Temperature range: - 20 ... + 60°C

#### Clearance and creepage distances

rated impulse voltage /

pollution degree

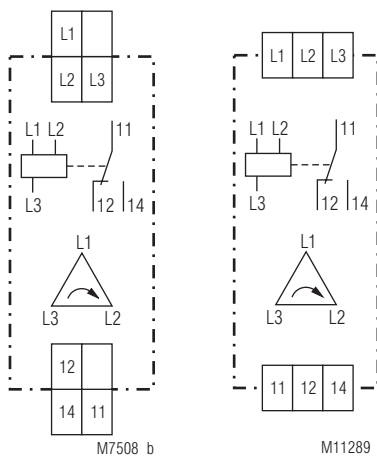
(between L1-L2-L3): 4 kV / 2

IEC 60 664-1

input/output: 4 kV / 2

IEC 60 664-1

### Circuit Diagram



IK 9179, SK 9179

RK 9179

## Technical Data

### EMC

Electrostatic discharge:	8 kV (air)	IEC/EN 61 000-4-2
HF irradiation:	10 V/m	IEC/EN 61 000-4-3
Fast transients:	2 kV	IEC/EN 61 000-4-4
Surge voltages between wires for power supply:	2 kV	IEC/EN 61 000-4-5
between wire and ground:	4 kV	IEC/EN 61 000-4-5
Interference suppression:	Limit value class B	EN 55 011

### Degree of protection

Housing:	IP 40	IEC/EN 60 529
Terminals:	IP 20	IEC/EN 60 529

**Housing:** Thermoplastic with V0 behaviour according to UL subject 94

**Vibration resistance:** Amplitude 0.35 mm IEC/EN 60 068-2-6  
frequency 10 ... 55 Hz

**Climate resistance:** 20 / 060 / 04 IEC/EN 60 068-1

**Terminal designation:** EN 50 005

**Wire connection:** 2 x 2.5 mm<sup>2</sup> solid or  
2 x 1.5 mm<sup>2</sup> stranded ferruled  
DIN 46 228-1/-2/-3/-4

**Wire fixing:** Flat terminals with self-lifting  
clamping piece IEC/EN 60 999-1  
DIN rail IEC/EN 60 715

### Mounting:

#### Weight

IK 9179:	60 g
RK 9179:	74 g
SK 9179:	77 g

## Dimensions

### Width x height x depth

IK 9179:	17.5 x 90 x 61 mm
RK 9179:	17.5 x 90 x 71 mm
SK 9179:	17.5 x 90 x 100 mm

## Standard Types

IK 9179.11 3 AC 400 V 50/60 Hz

Article number: 0049182

RK 9179 3 AC 400 V 50/60 Hz

Article number: 0060273

SK 9179.11 3 AC 400 V 50/60 Hz

Article number: 0051576

- Output: 1 changeover contact
- Nominal voltage  $U_N$ : 3 AC 400 V
- Width: 17.5 mm