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

0225107

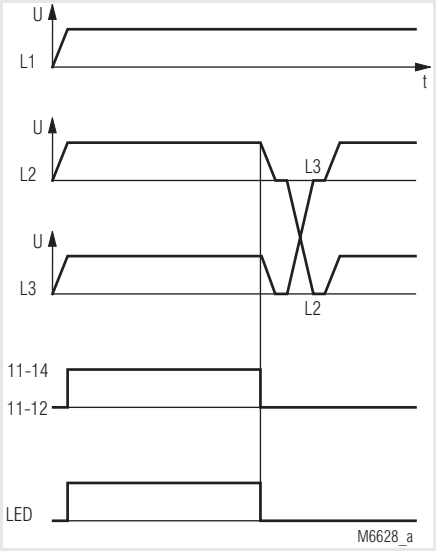

IK 9179


RK 9179

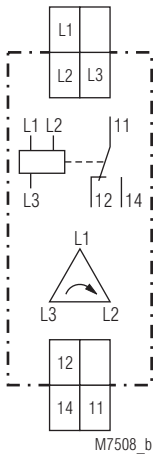

SK 9179

- According to IEC/EN 60255-1
- 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

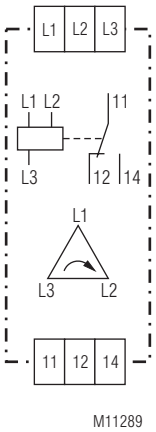
Function Diagram



Circuit Diagram



IK 9179, SK 9179



RK 9179

Connection Terminals

Terminal designation	Signal designation
L1, L2, L3	Measuring input or. supply voltage
11, 12 ,14	Changeover contact

Approvals and Markings

CE

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: ≥ 30 x 10^6 switching cycles

All technical data in this list relate to the state at the moment of edition. We reserve the rigth for technical improvements and changes at any time.

Technical Data

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
EMC		
Electrostatic discharge:	8 kV (air)	IEC/EN 61 000-4-2
HF irradiation		
80 MHz ... 2,7 GHz:	10 V/m	IEC/EN 61 000-4-3
Fast transients:	4 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
HF wire guided:	20 V	IEC/EN 61 000-4-6
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 frequency 10 ... 55 Hz	IEC/EN 60 068-2-6

The 1 MHz slow damped oscillator test according to IEC/EN 60255-1 has not been made.

Climate resistance:	20 / 060 / 04	IEC/EN 60 068-1
Terminal designation:	EN 50 005	
Wire connection:	DIN 46 228-1/-2/-3/-4	
IK 9179, SK 9179		
Cross section:	2 x 0,6 ... 2,5 mm² solid or 2 x 0,28 ... 1,5 mm² stranded wire with and without ferrules	
Stripping length:	10 mm	
Leiterbefestigung:	Plus-Minus-terminal screws M3,5 with self-lifting clamping piece	
Fixing torque:	0.8 Nm	
RK 9179		
Cross section:	0,34 ... 2,5 mm² solid or 0,34 ... 2,5 mm² stranded wire with and without ferrules	
Stripping length:	7 mm	
Wire fixing:	Captive slotted screw / M2,5	
Fixing torque:	0.5 Nm	
Mounting:	DIN rail	IEC/EN 60 715
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 9179.11 3 AC 400 V 50/60 Hz
Article number: 0060282
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