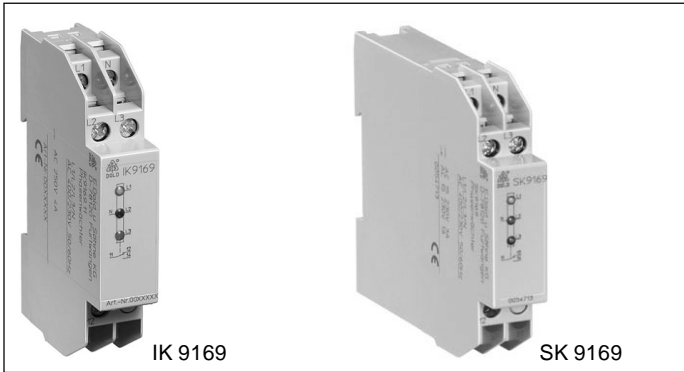


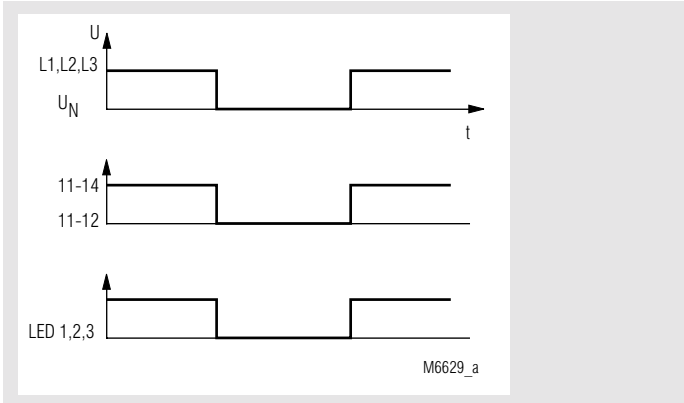
Phase monitor IK 9169, SK 9169 varimeter

0225117



- According to IEC 255, EN 60 255, VDE 0435 part 303
- **Devices available in 2 enclosure versions:**
 - IK 9169:** depth 59 mm, with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43 880
 - SK 9169:** depth 98 mm, with terminals at the top for cabinets with mounting plate and cable duct
- Detection of phase failure in 3-phase systems
- Single phase connection possible
- Closed circuit operation
- Independent of phase sequence
- LED indicator for each phase
- Output 1 changeover contact
- Width 17,5 mm

Function diagram



Approvals and marking



Applications

Detection of phase failure in 3-phase systems

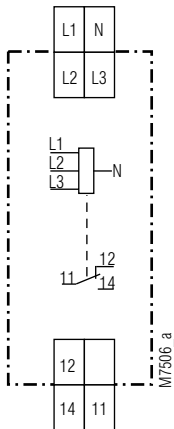
Indicators

LED L1, L2, L3: on, when phase is present

Notes

On broken or disconnected neutral the LEDs are off although the 3 phases are present. In this case measurement is necessary to prove that no voltage is present.

Circuit diagram



IK 9169, SK 9169

Technical data

Input

Nominal voltage U_N : 3/N AC 400/230 V
Voltage range: 0,8 ... 1,15 U_N
Nominal frequency: 50 / 60 Hz
Frequency range: 45 ... 65 Hz
Response value: 0,7 $U_N \pm 10\%$

Output

Contact
 IK 9169, SK 9169: 1 changeover contact
Thermal current I_{th} : 4 A
Switching capacity
 to AC 15
 NO contact: 3 A / AC 230 V EN 60 947-5-1
 NC contact: 1 A / AC 230 V EN 60 947-5-1
Electrical life
 to AC 15 at 1 A, AC 230 V: typ. 300 000 switching cycles
Short-circuit strength
max. fuse rating: 4 A gL 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
 overvoltage category /
 contamination level
 (between L1-L2-L3-N): 4 kV / 2 IEC 60 664-1

Technical data

input / output:	4 kV / 2	IEC 60 664-1
EMC		
Electrostatic discharge:	8 kV (air)	EN 61 000-4-2
HF irradiation:	10 V/m	EN 61 000-4-3
Fast transients:	2 kV	EN 61 000-4-4
Surge voltages		
between		
wires for power supply:	2 kV	EN 61 000-4-5
between wire and ground:	4 kV	EN 61 000-4-5
Interference suppression:	Limit value class B	EN 55 011
Degree of protection:		
Housing:	IP 40	EN 60 529
Terminals:	IP 20	EN 60 529
Housing:		
	Thermoplastic with V0 behaviour according to UL subject 94	
Vibration resistance:		
	Amplitude 0,35 mm	
	frequency 10 ... 55 Hz	EN 60 068-2-6
Climate resistance:		
	20 / 060 / 04	EN 60 068-1
Terminal designation:		
	EN 50 005	
Wire connection:		
	2 x 2,5 mm ² solid or	
	2 x 1,5 mm ² stranded ferruled	
	DIN 46 228-1/-2/-3	
Wire fixing:		
	Flat terminals with self-lifting	
	clamping piece	EN 60 999
	DIN rail	EN 50 022
Mounting:		
Weight		
IK 9169:	60 g	
SK 9169:	80 g	

Dimensions

Width x height x depth

IK 9169:	17,5 x 90 x 59 mm
SK 9169:	17,5 x 90 x 98 mm

Standard type

IK 9169.11 3/N AC 400 / 230 V 50/60 Hz

Article number: 0049177

- Output: 1 changeover contact
- Nominal voltage U_N : 3/N AC 400 / 230 V
- Width: 17,5 mm

SK 9169.11 3/N AC 400 / 230 V 50/60Hz

Article number: 0054713

- Output: 1 changeover contact
- Nominal voltage U_N : 3/N AC 400 / 230 V
- Width: 17,5 mm

Ordering example

IK 9169	.11	3/N AC 400/230 V	50/60 Hz	
				Nominal frequency
				Nominal voltage
				Contacts
				Type