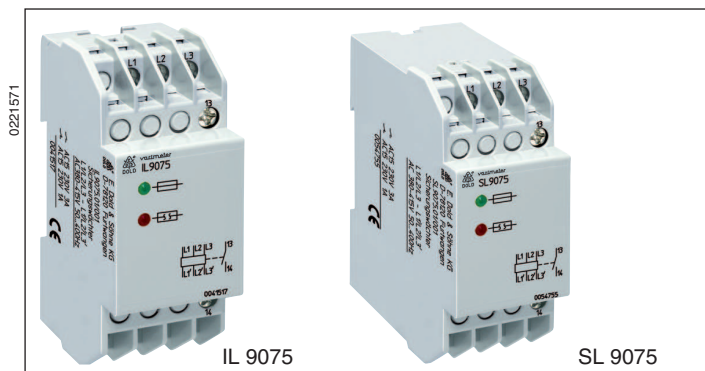


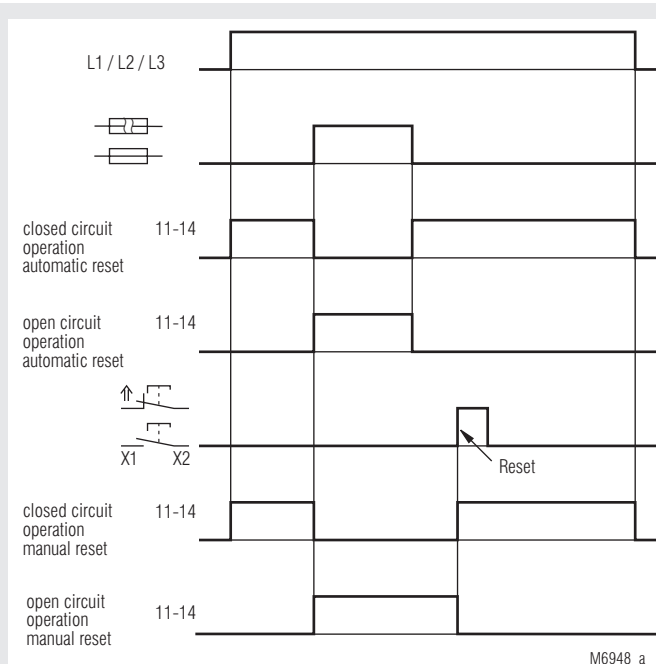
VARIMETER

Fuse Monitor

IL 9075, IP 9075, SL 9075, SP 9075



Function Diagram



- According to IEC/EN 60 255-1
- Recognizes fuse failures in three-phase mains up to 3 AC 690 V
- Can be used for all types and sizes of fuses
- Independent of phase sequence
- Signals even if loads are switched off
- No malfunction on
 - asymmetrical mains
 - mains with harmonic waves
 - motors producing feedback
- Shorter response time than with motor circuit-breakers
- Green LED for intact fuses
- Red LED for fuse failure
- As option: energized / de-energized on trip in the case of IP 9075 programmable via X4-X5 or X3-X4
- As option: with manual reset function and remote reset, programmable via X1-X2
- As option: 1 NO contact or 2 changeover contacts
- Devices available in 2 enclosure versions:
 - I-model: depth 59 mm, with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43 880
 - S-model: depth 98 mm, with terminals at the top for cabinets with mounting plate and cable duct
- IL 9075, SL 9075: width 35 mm
- IP 9075, SP 9075: width 70 mm

Approvals and Markings



¹⁾ only IL 9075

Applications

Fuse monitoring in the three-phase mains, e.g. for automatic switching-off and switch-on blockage of three-phase motors in the event of one or more phase fuses failing.

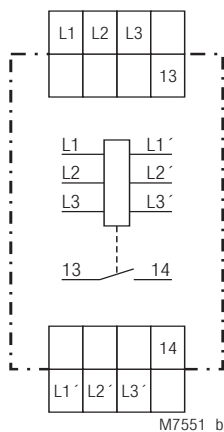
Indicators

green LED: for healthy fuse
red LED: for blown fuse

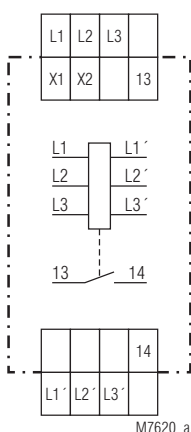
Notes

The internal resistance of the fuse monitor's measuring path is in the MOhm range, meaning that the regulations as regards touch voltage are fulfilled if a fuse is not present or if it is faulty (IEC 974-1, internal resistance > 2000 Ohm/V).

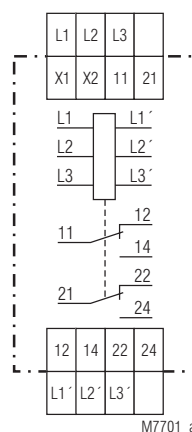
Circuit Diagrams



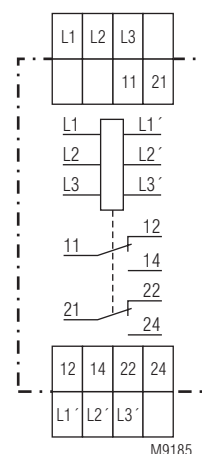
IL 9075.01,
SL 9075.01



IL 9075.01/01_,
SL 9075.01/01_

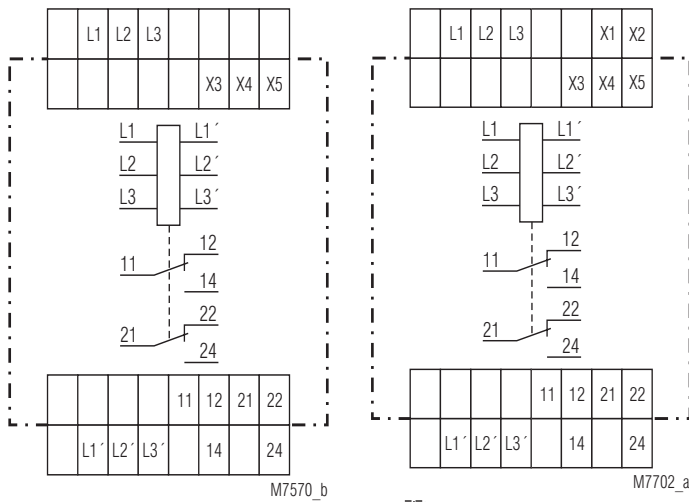


IL 9075.12/01_,
SL 9075.12/01_

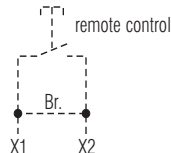


IL 9075.12/001,
SL 9075.12/001

Circuit Diagrams



IP 9075.12, SP 9075.12



without bridge : manual reset
with bridge : auto reset

IP 9075.12/010, SP 9075.12/010

Connection Terminals

Terminal designation	Signal designation
L1, L2, L3	Voltage before the fuses
L1', L2', L3'	Voltage after the fuses
X1, X2	Programming manual reset / reset
X3, X4, X5	Programming input energized / de-energized on trip
__ 9075.01: 11, 13	NO contact Rel. 1
__ 9075.12: 11, 12, 14	C/O contact Rel. 1
__ 9075.12: 21, 22, 24	C/O contact Rel. 2

Technical Data

Input

Nominal voltage U_N :

IL/SL 9075.01/___:

3 AC 110 ... 127 V
3 AC 220 ... 240 V
3 AC 380 ... 415 V
3 AC 400 ... 440 V
3 AC 110 V
3 AC 230 V
3 AC 400 V
3 AC 480 ... 550 V, 600 ... 690 V
0.8 ... 1.1 U_N

IL/SL 9075.12/___:

IP 9075, SP 9075:

Voltage range:

Nominal consumption:

IL 9075, SL 9075:

IP 9075, SP 9075:

Nominal frequency:

Internal resistance of the measuring paths:

Permissible feedback:

2.0 VA (on L2 / L3)
3.0 VA (on L1 / L2)
50 ... 400 Hz

> 2000 Ω/V
max. 90 %

Output

Contacts

IL/SL 9075.01/___:

IL/SL 9075.12/___:

IP/SP 9075.12/___:

1 NO contact
2 changeover contacts
2 changeover contacts

Response/release time:

de-energized on trip

IL/SL 9075. __/001:

IL/SL 9075. __/011:

IP/SP 9075:

energized on trip

IL/SL 9075. __:

IL/SL 9075. __/010:

IP/SP 9075:

< 50 ms
< 50 ms
< 50 ms

< 500 ms
< 500 ms
< 500 ms
max. AC 250 V
4 A

Output nominal voltage:

Thermal current I_{th} :

Switching capacity

to AC 15

IL/SL 9075:

NO contact:

NC contact:

to DC 13:

IP/SP 9075:

Schließer:

Öffner:

3 A / AC 230 V IEC/EN 60 947-5-1
1 A / AC 230 V IEC/EN 60 947-5-1
1 A / DC 24 V IEC/EN 60 947-5-1
3 A / AC 230 V IEC/EN 60 947-5-1
1 A / AC 230 V IEC/EN 60 947-5-1

Electrical life

to AC 15 at 1 A, AC 230 V

IL/SL 9075:

IP/SP 9075:

1.5 x 10⁵ switching cycles
2.5 x 10⁵ switching cycles

Short circuit strength

max. fuse rating:

Mechanical life:

4 A gL IEC/EN 60 947-5-1
> 10⁸ switching cycles

Technical Data		
General Data		
Operating mode:	Continuous operation	
Temperature range:		
Operation:	- 20 ... + 60 °C	
Storage:	- 25 ... + 70 °C	
Altitude:	< 2.000 m	
Clearance and creepage distances		
rated impulse voltage / pollution degree:	4 kV / 2	IEC 60 664-1
EMC		
Electrostatic discharge:	8 kV (air)	IEC/EN 61 000-4-2
HF irradiation		
80 MHz ... 1 GHz:	10 V / m	IEC/EN 61 000-4-3
1 GHz ... 2.7 GHz:	3 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:	10 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	
Climate resistance:	20 / 060 / 04	
Terminal designation:	2 x 2.5 mm ² solid or 2 x 1.5 mm ² stranded ferruled	
	DIN 46 228-1/-2/-3/-4	
Min. cross section:	0,6 mm	
Insulation of wires or sleeve length:	10 mm	
Wire fixing:	Flat terminals with self-lifting clamping piece	
	IEC/EN 60 999-1	
Fixing torque:	0.8 Nm	
Mounting:	DIN rail	
	IEC/EN 60 715 (also available for screw mounting)	
Weight:		
IL 9075:	130 g	
SL 9075:	157 g	
IP 9075:	255 g	
SP 9075:	304 g	

Dimensions

Width x height x depth

IL 9075:	35 x 90 x 59 mm
SL 9075:	35 x 90 x 98 mm
IP 9075:	70 x 90 x 59 mm
SP 9075:	70 x 90 x 98 mm

Standard Types

IL 9075.01/001	AC 380 ... 415 V	50 ... 400 Hz
Article number:	0041517	
SL 9075.01/001	AC 380 ... 415 V	50 ... 400 Hz
Article number:	0054755	
• De-energized on trip • Automatic reset • 1 NO contact		
Nominal voltage U _N :	AC 380 ... 415 V	
Width:	35 mm	

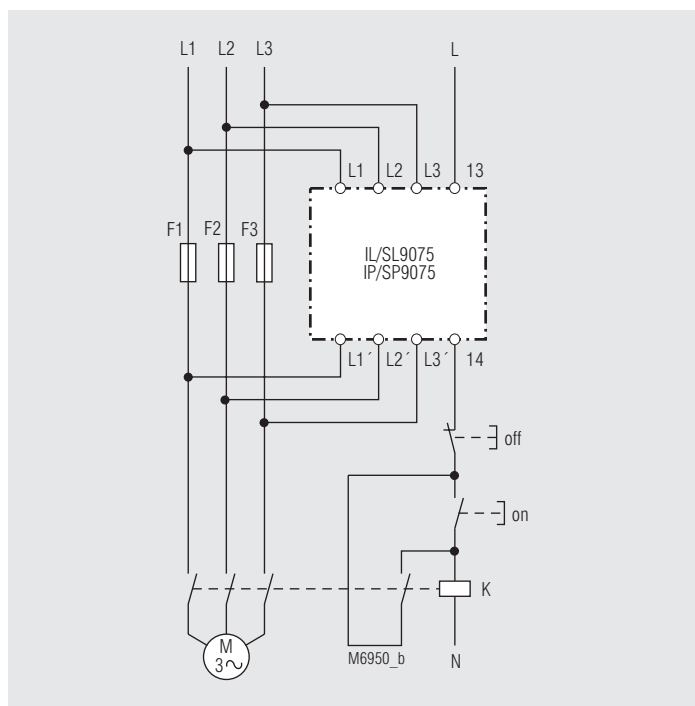
Variants

For rated voltages up to 3 AC 400 resp. 440 V:
IL 9075. __ : energized on trip, automatic reset
IL 9075. __ /001 : de-energized on trip, automatic reset
IL 9075. __ /010 : energized on trip, manual reset
IL 9075. __ /011 : de-energized on trip, manual reset

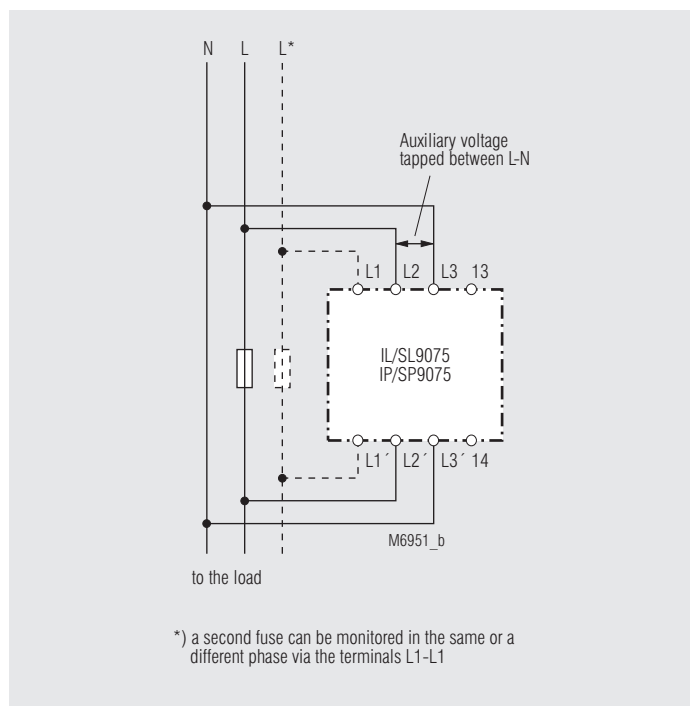
For rated voltages up to 3 AC 690 V,
open/de-energized on trip, settable:
IP 9075.12 : automatic reset
IP 9075.12/010 : manual reset or automatic reset settable

Ordering example for variants

IL 9075	.01	/	__	__	AC 380 ... 415 V	50 ... 400 Hz
						Nominal frequency
						Nominal voltage
						Variant, if required
						Contact
						Type



Fuse monitoring in the 2-phase mains, e.g. for motor protection with IL 9075/001 or with IP 9075, de-energized on trip, jumper X3-X4



*) a second fuse can be monitored in the same or a different phase via the terminals L1-L1

Fuse monitoring in the alternating current mains