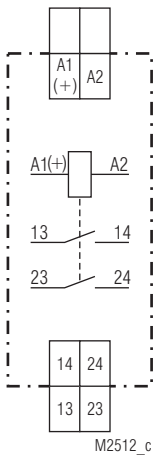


Interface module IK 3079 SAFEMASTER®

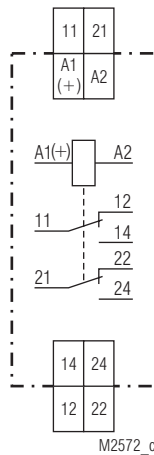


- According to
 - SIL-Claimed Level (SIL CL) 1 to EN 62061
 - Performance Level (PL) c to DIN EN ISO 13849-1
- With input protection circuit against voltage peaks
- Positively-driven contacts according to EN 50 205
- I_{th} max. 8 A or 2 x 5 A
- Functional display by LED
- Optionally 2 NO or 2 changeover contacts or 1 NO and 1 NC
- IK 3079/103: with positively-driven contacts according to ZH/457
- 17.5 mm width

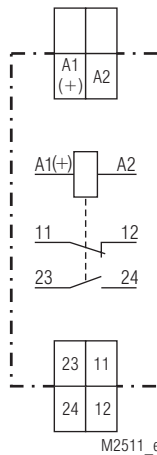
Circuit diagram



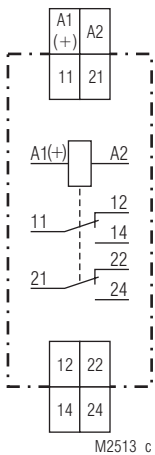
IK 3079.02



IK 3079.12



IK 3079.16
IK 3079.16/103



IK 3079.12 (special version)

Approvals and marking



Indication

green LED: on, when control voltage connected

Technical Data

Input

Nominal voltage U_N:	AC/DC 24 V
IK 3079.02, IK 3079.16:	AC/DC 24 V
IK 3079.12:	AC/DC 24 V, AC 230 V
IK 3079.16/103:	DC 24 V
Voltage range:	AC 0.8 ... 1.1 U_N , DC 0.9 ... 1.2 U_N
Nominal consumption:	approx. 0.9 W
Nominal frequency:	50 / 60 Hz
Frequency range:	± 5 % of nominal frequency

Output

Contacts

IK 3079.02:	2 NO contacts
IK 3079.12:	2 changeover contacts
IK 3079.16, IK 3079.16/103:	1 NC and 1 NO contact
Response time:	≤ 8 ms
Release time:	≤ 15 ms
Contact type:	Spring contact
Nominal output voltage:	AC 10 V ... AC 400 V
Thermal current I_{th}:	max. 8 A or 2 x 5 A simultaneous
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:	≥ 2.5 x 10 ⁵ switching cycles
Electrical life	
to AC 15 at 10 A, AC 230 V:	≥ 10 ⁶ switching cycles IEC/EN 60 947-5-1
Permissible switching frequency:	max. 10 switching cycles / s
Switching capacity	
min. / max.:	3 VA / 2 000 VA or 2 x 1250 VA simultaneous 3 W / 200 W
Mechanical life:	≥ 50 x 10 ⁶

Technical Data

General Data

Operating mode:	Continuous operation	
Temperature range:		
IK 3079:	- 20 ... + 55 °C	
IK 3079/103:	- 20 ... + 85 °C	
Clearance and creepage distances		
rated impuls voltage / pollution degree		
Input/Output:	4 kV / 2	IEC 60 664-1
Contacts:	2.5 kV / 2	IEC 60 664-1
	only for 1-phase systems (same phase)	

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:	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
Interference suppression:	Limit value class B EN 55011	

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

Climate resistance:

Humid heat IEC/EN 60 068-1

Terminal designation:

EN 50 005

Wire connection:

2 x 2.5 mm² solid or
2 x 1.5 mm² stranded ferruled
DIN 46 228-1/-2/-3/-4

Wire fixing:

Flat terminals with self-lifting clamping piece IEC/EN 60 999-1

Mounting:

DIN rail IEC/EN 60 715

Weight:

60 g

Dimensions

Width x height x depth: 17.5 x 89 x 58 mm

Standard type

IK 3079.16 AC/DC 24 V

Article number:	0041187
• Temperature range:	- 20 ... + 55 °C
• Output:	1 NC, 1 NO contact
• Nominal voltage U _N :	AC/DC 24 V
• Width:	17.5 mm

IK 3079.16/103 DC 24 V

Article number:	0053851
• Temperature range:	- 20 ... + 85 °C
• Output:	1 NC, 1 NO contact
• Nominal voltage U _N :	AC/DC 24 V
• Width:	17.5 mm

Ordering example

IK 3079 .16 AC/DC 24 V 50 / 60 Hz

Nominal frequency
Nominal voltage
Contact
Type

IK 3079 .16 /103 DC 24 V 50 / 60 Hz

Nominal frequency
Nominal voltage
Temperature range:
- 20 ... + 85 °C
Contact
Type

Safety related data

Probability of dangerous

Failure per Hour (PFH_D): 1.58 · 10⁻⁷ 1/h

Safe Failure Fraction (SFF):

67.2 %

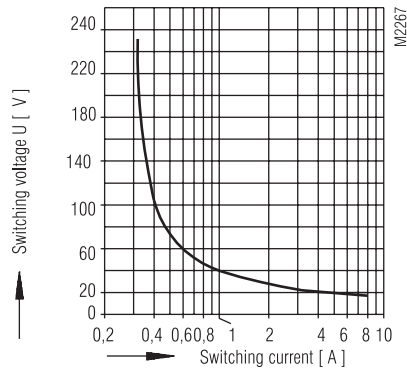
Proof Test Intervall (T1):

20 Years



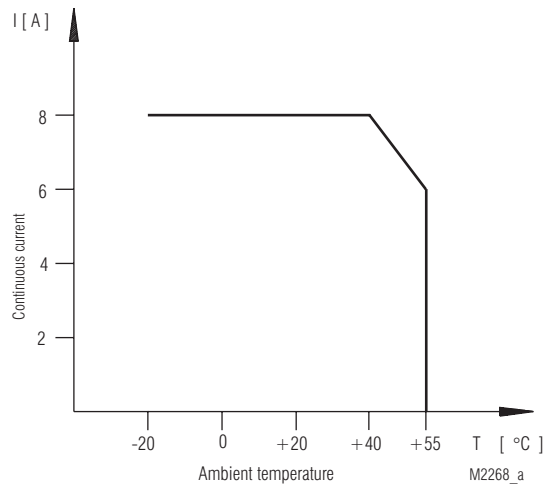
The values stated above are valid for the standard type. Safety data for other variants are available on request

Characteristics

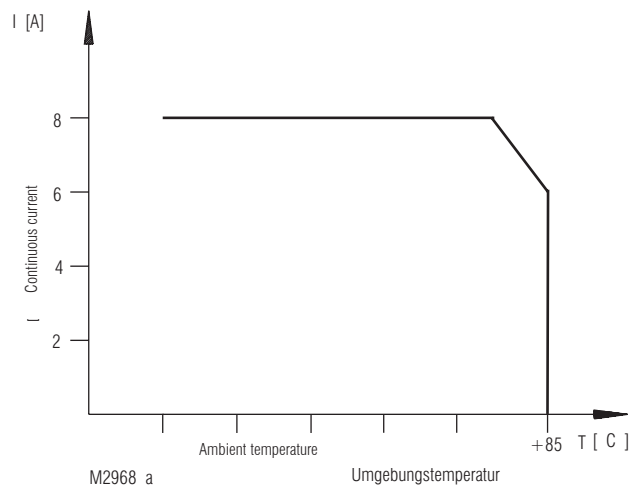


Safe switch-off, no continuous arc, max. 1 switching operation / s

Limit curve for arc-free operation under ohmic load



IK 3079: Continuous current limit curve as a function of the ambient temperature



IK 3079/103: Continuous current limit curve as a function of the ambient temperature