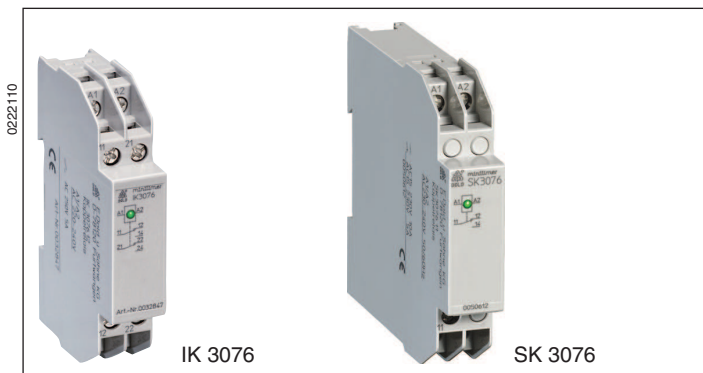
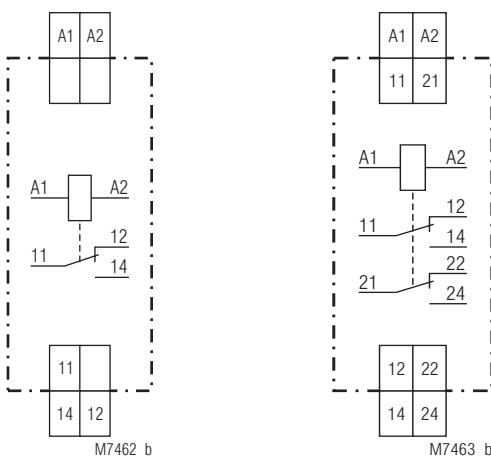


Interface Relay Input Interface Relay - Output Interface Relay IK 3076, SK 3076



- According to IEC/EN 60 255, IEC/EN 61 810-1
- Protective separation according to IEC/EN 61 140, IEC/EN 60 947-1 in configuration with 1 changeover contact
- With input wiring protection against voltage surges
- High permanent current I_{th}
- LED indicator
- As option with 1 or 2 changeover contacts
- As option for switching low loads
- Devices available in 2 enclosure versions:
 - IK 3076: depth 59 mm with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43 880
 - SK 3076: depth 98 mm with terminals at the top for cabinets with mounting plate and cable duct
- Width 17.5 mm

Circuit Diagrams



IK 3076.11
SK 3076.11

IK 3076.12
SK 3076.12

Connection Terminals

Terminal designation	Signal designation
A1	L / +
A2	N / -
11, 12, 14 21, 22, 24	Changeover contacts

Approvals and Markings



Applications

- Link between the control and power levels
- For separating potentials
- For industrial and railway applications

Indicator

LED: on when the relay is supplied with current

Technical Data

Input

Nominal voltage U_N : AC/DC 8, 12, 24, 48 V
AC 110 ... 130, 230 ... 240 V

Voltage range: 0.8 ... 1.1 U_N
0.9 ... 1.25 U_N in battery operating mode

Nominal consumption: DC 24 V AC 230 V
0.5 W 0.8 VA

Nominal frequency: 50 / 60 Hz

Frequency range: $\pm 5\%$

Output

Contacts
IK 3076.11, SK 3076.11: 1 changeover contact
IK 3076.12, SK 3076.12: 2 changeover contacts

Operate/release time: < 10 ms / < 20 ms

Thermal current I_{th}
IK 3076.11, SK 3076.11: 10 A
IK 3076.12, SK 3076.12: 5 A

Switching capacity
to AC 15:
NC contact: 1 A / AC 230 V IEC/EN 60 947-5-1
NO contact: 3 A / AC 230 V IEC/EN 60 947-5-1
to DC 13:
NC contact: 1 A / DC 24 V IEC/EN 60 947-5-1
NO contact: 1 A / DC 24 V IEC/EN 60 947-5-1

Electrical life
AC 15 at 3 A, AC 230 V IEC/EN 60 947-5-1
IK 3076.11, SK 3076.11: 1 x 10⁵ switching cycles
IK 3076.12, SK 3076.12: 1 x 10⁵ switching cycles

Permissible switching frequency: 6 000 switching cycles/h

Short circuit strength max. fuse rating
IK 3076.11, SK 3076.11: 10 A gL IEC/EN 60 947-5-1
IK 3076.12, SK 3076.12: 4 A gL IEC/EN 60 947-5-1

Mechanical life: > 30 x 10⁶ switching cycles

Technical Data

General Data

Operating mode: Continuous operation

Temperature range

Operation: - 20 ... + 60 °C

Storage: - 40 ... + 80 °C

Altitude: < 2.000 m

Clearance and creepage distances

rated impulse voltage/

pollution degree:

IK 3076.11, SK 3076.11:

Input/output: 6 kV / 2 IEC 60 664-1

IK 3076.12, SK 3076.12:

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

80 MHz ... 1 GHz: 10 V/m IEC/EN 61 000-4-3

1 GHz ... 2.5 GHz: 3 V/m IEC/EN 61 000-4-3

2.5 GHz ... 2.7 GHz: 1 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: 1 kV IEC/EN 61 000-4-5

between wire and ground: 2 kV IEC/EN 61 000-4-5

HF-wire guided: 10 V IEC/EN 61 000-5-6

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:

20 / 060 / 04 IEC/EN 60 068-1

Terminal designation:

EN 50 005

Wire connection

Cross section:

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

Stripping 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 mounting (IEC/EN 60715) or
screw mounting M4, 90 mm hole pattern,
with additional clip available as accessory

Weight

IK 3076: 72 g

SK 3076: 91 g

Dimensions

Width x height x depth

IK 3076: 17.5 x 89 x 59 mm

SK 3076: 17.5 x 90 x 98 mm

Standard Types

IK 3076.12 AC/DC 24 V 50/60 Hz

Article number: 0033445

SK 3076.12 AC/DC 24 V 50/60 Hz

Article-number: 0054988

• Output: 2 changeover contacts

• Nominal voltage U_N : AC/DC 24 V

• Width: 17.5 mm

Accessories

ET 4086-0-2: Additional clip for screw mounting
Article number: 0046578

Variants

IK 3076._./004,
SK 3076._./004: for low loads of 0.1 ... 60 V,
1 mA ... 300 mA

IK 3076._./007,
SK 3076._./007: safe release voltage
approx. 27 % of U_N

Ordering example for variants

IK 3076 .12 / - AC/DC 48 V 50 / 60 Hz

— Nominal frequency
— Nominal voltage
— Variant, if required
— Contacts
— Type

Classification to DIN EN 50155 for IK 3076

Vibration and

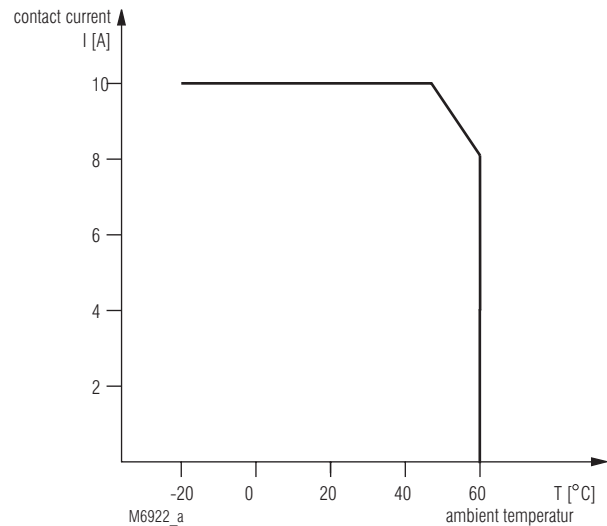
shock resistance: Category 1, Class B IEC/EN 61 373

Ambient temperature: T1 compliant

T2, T3, TX with operational limitations

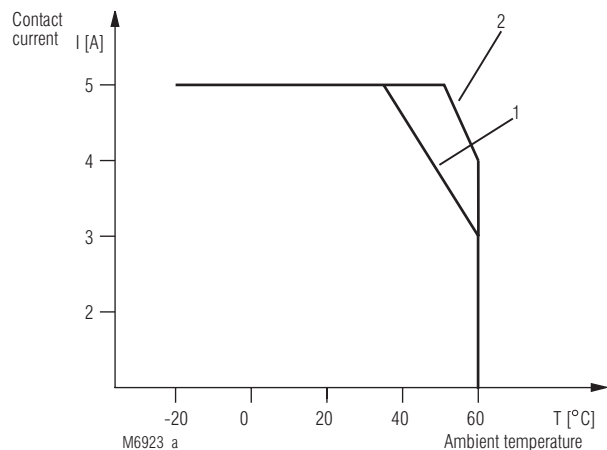
Protective coating of the PCB: No

Characteristics



Permanent current limit curve:

Permissible contact current of IK 3076.11, SK 3076.11 in relation to the ambient temperature



Permanent current limit curve:

Permissible contact current of IK 3076.12, SK 3076.12 in relation to the ambient temperature

- 1 Nominal voltage, mounted without distance, current supplied to both contacts
- 2 Nominal voltage, mounted without distance, current only supplied to one contact