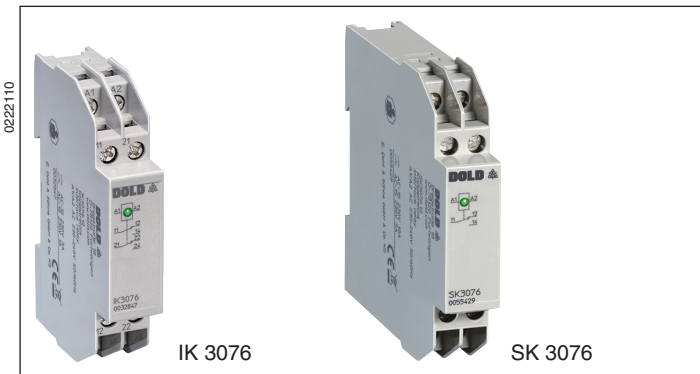


## Interface Relay IK 3076, SK 3076

Translation  
of the original instructions



### Your advantages

- According to IEC/EN 60947-5-1, IEC/EN 61810-1
- Protective separation according to IEC/EN 61140, IEC/EN 60947-1 in configuration with 1 changeover contact
- With input wiring protection against voltage surges
- High permanent current  $I_{th}$

### Features

- 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 43880
  - SK 3076: Depth 98 mm with terminals at the top for cabinets with mounting plate and cable duct
- DIN rail or screw mounting
- Width 17.5 mm

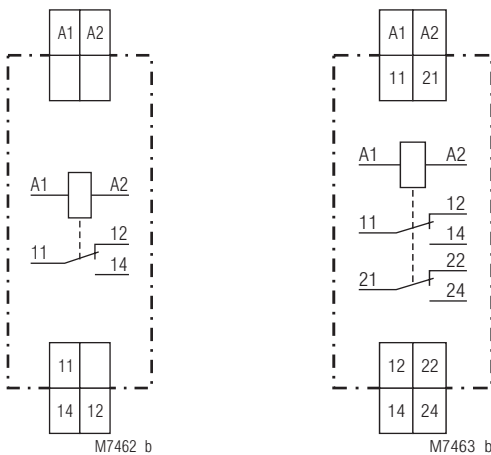
### Product Description

The coupling relay IK 3076 and SK 3076 is used for contact multiplication and is suitable as a link between control and power level. The coupling relay is available with different contact combinations and optionally for switching small loads.

### Approvals and Markings



### Circuit Diagrams



IK 3076.11  
SK 3076.11

IK 3076.12  
SK 3076.12

### 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 60947-5-1  
NO contact: 3 A / AC 230 V IEC/EN 60947-5-1  
To DC 13:  
NC contact: 1 A / DC 24 V IEC/EN 60947-5-1  
NO contact: 1 A / DC 24 V IEC/EN 60947-5-1

**Electrical life**  
AC 15 at 3 A, AC 230 V IEC/EN 60947-5-1  
IK 3076.11, SK 3076.11: 1 x 10<sup>5</sup> switching cycles  
IK 3076.12, SK 3076.12: 1 x 10<sup>5</sup> switching cycles

**Permissible switching frequency:** 6000 switching cycles/h

**Short circuit strength**  
**max. fuse rating**  
IK 3076.11, SK 3076.11: 10 A gG / gL IEC/EN 60947-5-1  
IK 3076.12, SK 3076.12: 4 A gG / gL IEC/EN 60947-5-1

**Mechanical life:** > 30 x 10<sup>6</sup> switching cycles

### Connection Terminals

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

## Technical Data

### General Data

**Operating mode:** Continuous operation

### Temperature range

Operation: - 25 ... + 60 °C

Storage: - 40 ... + 80 °C

**Altitude:** ≤ 2000 m

### Clearance and creepage distances

Rated impulse voltage / pollution degree:

IK 3076.11, SK 3076.11:

Input / output: 6 kV / 2 IEC 60664-1

IK 3076.12, SK 3076.12:

Input / output: 4 kV / 2 IEC 60664-1

Contacts: 2.5 kV / 2 IEC 60664-1

Only for 1-phase systems (same phase)

### EMC

Electrostatic discharge: 8 kV (air) IEC/EN 61000-4-2

HF irradiation

80 MHz ... 1 GHz: 10 V/m IEC/EN 61000-4-3

1 GHz ... 2.5 GHz: 3 V/m IEC/EN 61000-4-3

2.5 GHz ... 2.7 GHz: 1 V/m IEC/EN 61000-4-3

Fast transients: 2 kV IEC/EN 61000-4-4

Surge voltages between

wires for power supply: 1 kV IEC/EN 61000-4-5

Between wire and ground: 2 kV IEC/EN 61000-4-5

HF-wire guided: 10 V IEC/EN 61000-5-6

Interference suppression: Limit value class B EN 55011

### Degree of protection

Housing: IP 40 IEC/EN 60529

Terminals: IP 20 IEC/EN 60529

**Housing:** Thermoplastic with V0 behaviour according to UL Subject 94

**Vibration resistance:** Amplitude 0.35 mm

frequency 10 ... 55 Hz IEC/EN 60068-2-6

**Climate resistance:** 25 / 060 / 04 IEC/EN 60068-1

**Terminal designation:** EN 50005

### Wire connection

Cross section: 2 x 2.5 mm<sup>2</sup> solid or 2 x 1.5 mm<sup>2</sup> stranded ferruled DIN 46228-1/-2/-3/-4

Stripping length: 10 mm

**Wire fixing:** Flat terminals with self-lifting clamping piece IEC/EN 60999-1

**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

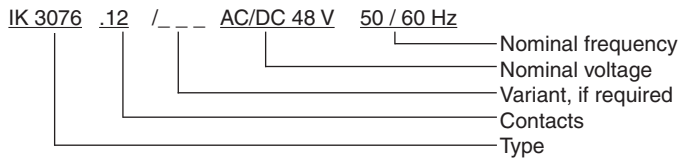
ET 4086-0-2: Additional clip for screw mounting  
Article number: 0046578

## 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



## Classification to DIN EN 50155 for IK 3076

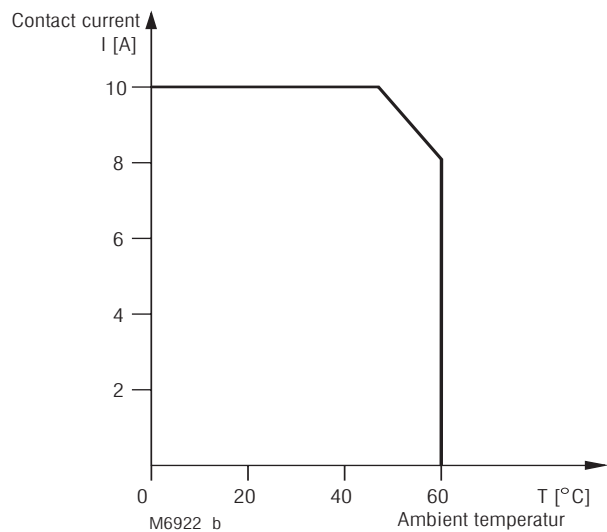
### Vibration and

**shock resistance:** Category 1, Class B IEC/EN 61373

**Service temperature classes:** OT1 compliant

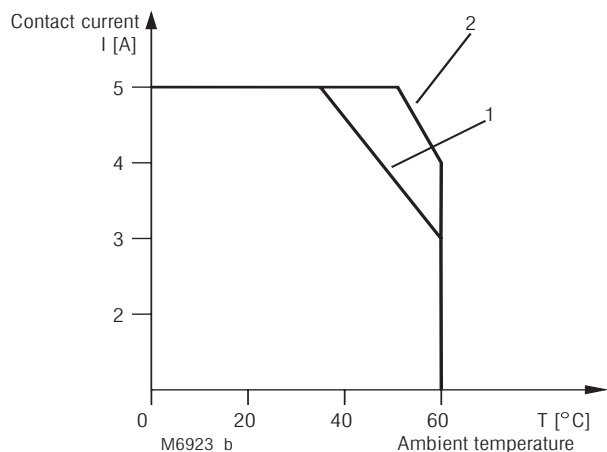
**Protective coating of the PCB:** No

## 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