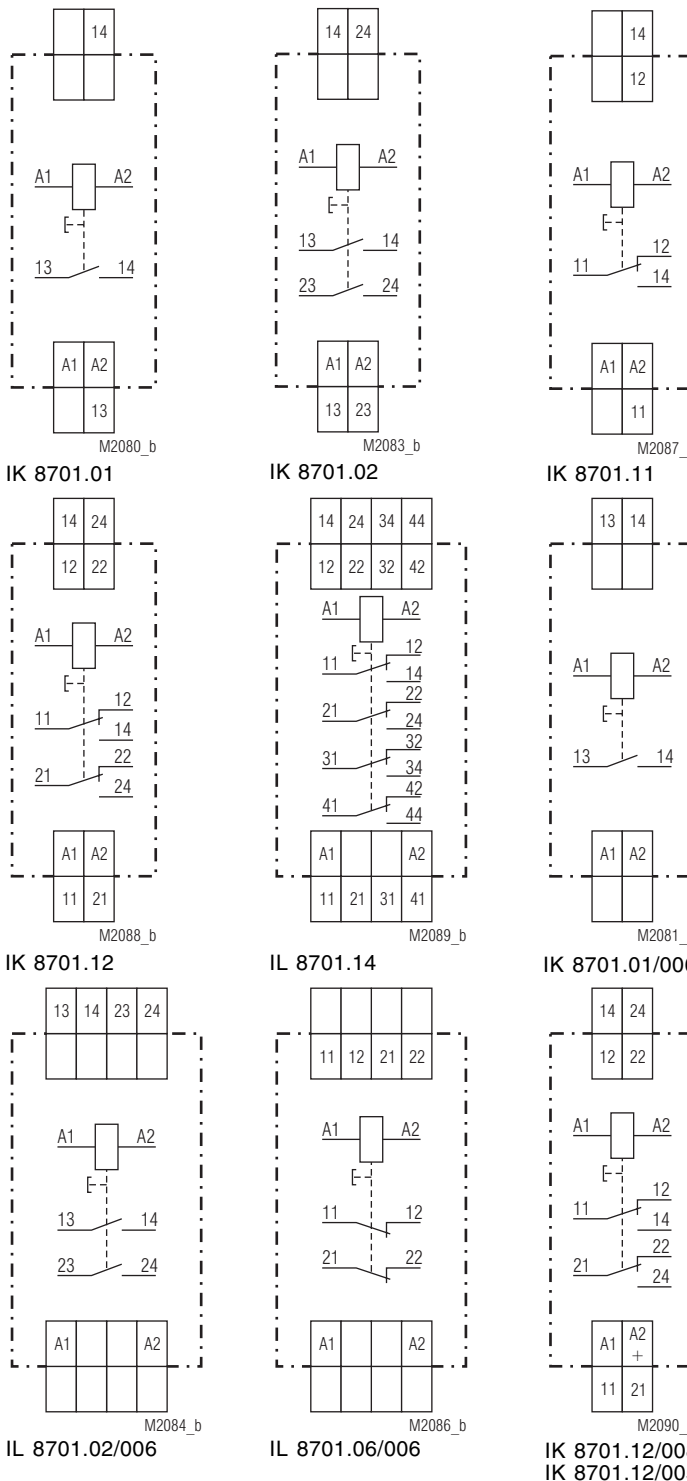




- According to IEC/EN 61 810-1
- Optionally contacts with up to a maximum 4 changeover contacts
- High thermal current  $I_{th}$
- Pushbutton for manual actuation of the contact
- Operating position display
- Optionally without manual actuation and an operating position display
- Optionally for 2-wire initiator activation
- Optionally for switching low loads
- Optionally for switching lamps with parallel compensation (e.g. HQ lamps)
- Optionally for switching large inductive direct current loads
- Optionally with a recovery diode
- Optionally with reliable release voltage of AC 120 V
- IK 8701: width 17,5 mm  
IL 8701: width 35 mm  
IN 8701: width 52,5 mm

### Circuit diagrams



### Approvals and marking



### Applications

- For switching lamp loads
- Input interface relay, e.g. for activation of PLC
- Output interface relay, e.g. for PLC-controlled loads

### Function

The contacts are actuated with an armature via a plunger. After the exciting voltage has dropped, a spring returns the armature (which is connected to the plunger) to its home position. The contacts can be actuated manually via a pushbutton on the front as well. The pushbutton acts at the same time as an operating position display. The contacts are closed when the pushbutton is pressed. The red pushbutton is flush with the front edge when there is no current.

### Indicators

Pushbutton: pressed, when the relay is supplied with current

### Technical data

#### Input

**Nominal voltage:** AC 24, 42, 230 V  
DC 12, 24 V  
other voltages available on request

**Voltage range:** 0,9 ... 1,1  $U_N$

**Nominal consumption**

IK 8701:	AC 1,8 W	DC 1,2 W
IL 8701:	AC 3,8 W	DC 2,6 W
IN 8701:	AC 5,8 W	DC 4,0 W

**Nominal frequency:** 50 or 60 Hz

#### Output

**Contacts**

IK 8701.01:	1 NO contact
IK 8701.02:	2 NO contacts
IK 8701.05:	1 NC contact
IK 8701.06:	2 NC contacts
IK 8701.11:	1 changeover contact
IK 8701.12:	2 changeover contacts
IL 8701.13:	3 changeover contacts
IL 8701.14:	4 changeover contacts

**Operate time:** < 30 ms  
**Release time:** < 30 ms  
**Nominal output voltage:** AC 230 / 400 V IEC/EN 60 947-5-1  
**Thermal current  $I_{th}$ :** 16 A  
**Direct current load:** See arc limit curve

## Technical data

### Switching capacity

fluorescent lamp load: 20 lamps with 58 W / contact each  
 fluorescent lamp load with electronic series reactor: 58 lamps with 18 W / contact each  
 28 lamps with 40 W / contact each  
 20 lamps with 58 W / contact each

### duo switching

(series compensated): 2 x 20 lamps with 58 W / contact each  
 5 x 10<sup>4</sup> switching cycles

### bulb load:

1200 W / contact  
 5 x 10<sup>4</sup> switching cycles

### Electrical life:

with ohmic load AC 230 V: 500 switching cycles / h  
 6 A 150 x 10<sup>4</sup> switching cycles  
 10 A 75 x 10<sup>4</sup> switching cycles  
 16 A 12 x 10<sup>4</sup> switching cycles

### Inductive load cos φ 0,6:

10 A 10 x 10<sup>4</sup> switching cycles  
 see arc limit curve

### DC-load:

### Permissible switching frequency:

1 000 switching cycles / h

### Short circuit strength

max. fuse rating: 16 A gL IEC/EN 60 947-5-1

### Mechanical life:

> 10 x 10<sup>6</sup> switching cycles

## General data

### Operating mode:

Continuous operation

### Temperature range:

- 20 ... + 45°C

### Clearance and creepage distances

#### overvoltage category /

#### contamination level:

4 kV / 2 IEC 60 664-1

### Degree of protection:

Housing: IP 30 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 60 068-2-30

### Terminal designation:

EN 50 005

### Wire connection:

2 x 2,5 mm<sup>2</sup> solid or  
 2 x 1,5 mm<sup>2</sup> stranded ferruled  
 DIN 46 228-1/-2/-3/-4 or  
 2 x 1 mm<sup>2</sup> stranded ferruled  
 DIN 46 228-1/-2/-3/-4

### Wire fixing:

Flat terminals with self-lifting clamping piece IEC/EN 60 999-1  
 DIN rail IEC/EN 60 715

### Mounting:

#### Weight:

IK 8701: 100 g  
 IL 8701: 200 g  
 IN 8701: 300 g

## Dimensions

### Width x height x depth:

IK 8701: 17,5 x 89 x 58 mm  
 IL 8701: 35 x 89 x 58 mm  
 IN 8701: 52,5 x 89 x 58 mm

## Standard type

IK 8701.12 AC 230 V 50 Hz

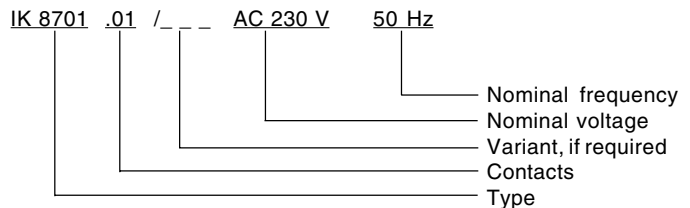
Article number: 0033896 stock item

- Pushbutton for manual actuation of the contacts and operating position display
- Output: 2 changeover contacts
- Nominal voltage U<sub>N</sub>: AC 230 V
- Width: 17,5 mm

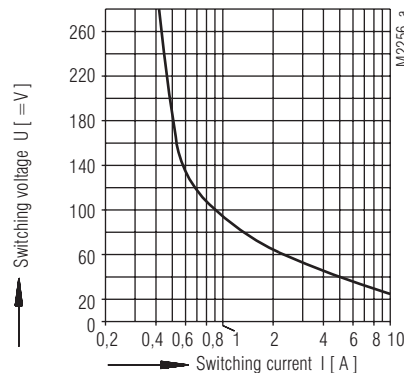
## Variants

- IK 8701.\_ /001:** For switching low loads up to maximum of 6 VA/W at 0,3 ... 60 V / 1 ... 300 mA  
 The contacts also permit the maximum switching current.  
 However, since the gold plating is burnt off at this current level, the unit is no longer suitable for switching low loads again afterwards.
- IK 8701.\_ /002:** Can be activated with 2-wire initiators, permissible residual current ≤ 3 mA. Max. 6 glow lamps (0,5 mA each) are possible parallel to the mains button.
- IK 8701.\_ /003:** 3 mm contact opening (only NC and NO contact)
- IK 8701.\_ /005:** Same as IK 8701.\_ /001 with a recovery diode to reduce switching spikes
- IK 8701.\_ /006:** For switching large inductive direct current voltage loads (DC 220 V, L/R = 30 ms), (only NC and NO contact)
- IK 8701.\_ /007:** For switching lamps with parallel compensation, e.g. HQ lamps (only 1 or 2 NO contacts). Maximum parallel compensation 100 µF
- IK 8701.\_ /008:** With a recovery diode to reduce switching spikes
- IK 8701.\_ /009:** With a reliable release voltage of AC 120 V with a nominal voltage of AC 230 V.
- IK 8701.\_ /010:** Same as IK 8701.\_ /006 with a recovery diode to reduce switching spikes
- IK 8701.\_ /016:** Nominal voltage DC 24 V  
 Voltage range 0,8 ... 1,15 UN  
 Temperature range - 20 ... + 55°C (only 1 NC, NO or changeover contact)
- IK 8701.\_ /700:** Without manual actuation and an operating position display

## Ordering example for variants



## Characteristics



safe braking, no continuous arcing  
 max. 1000 switching cycles / h  
 contact spacing min. 0,6mm

Arc limit curve for direct current voltage-resistive load

## Specification for tender for IK 8701

Switching relay according to IEC/EN 61 810-1 to be built in consumer units, 1 NO contact, thermal current 16 A, pushbutton for manual actuation of the contacts and operating position display.

Width 17,5 mm.

Type IK 8701.01

Manufactured by: E. DOLD & SÖHNE KG

Switching relay according to IEC/EN 61 810-1 to be built in consumer units, 2 NO contacts, thermal current 16 A, pushbutton for manual actuation of the contacts and operating position display.

Width 17,5 mm

Type IK 8701.02

Manufactured by: E. DOLD & SÖHNE KG

Switching relay according to IEC/EN 61 810-1 to be built in consumer units, 1 changeover contact, thermal current 16 A, pushbutton for manual actuation of the contacts and operating position display.

Width 17,5 mm

Type IK 8701.11

Manufactured by: E. DOLD & SÖHNE KG

Switching relay according to IEC/EN 61 810-1 to be built in consumer units, 2 changeover contacts, thermal current 16 A, pushbutton for manual actuation of the contacts and operating position display.

Width 17,5 mm

Type IK 8701.12

Manufactured by: E. DOLD & SÖHNE KG

Switching relay according to IEC/EN 61 810-1 to be built in consumer units, 3 changeover contacts, thermal current 16 A, pushbutton for manual actuation of the contacts and operating position display.

Width 17,5 mm

Type IK 8701.13

Manufactured by: E. DOLD & SÖHNE KG

Switching relay according to IEC/EN 61 810-1 to be built in consumer units, 4 changeover contacts, thermal current 16 A, pushbutton for manual actuation of the contacts and operating position display.

Width 17,5 mm

Type IK 8701.14

Manufactured by: E. DOLD & SÖHNE KG

