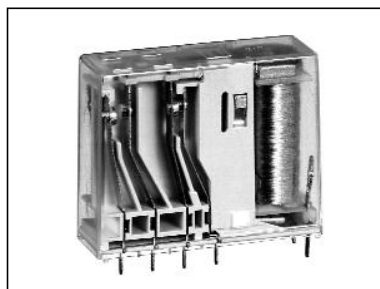


# Safety Relay K-RAS



## General

- 4 contacts
- Forced guided contact set
- According to EN 50205, application type A
- Ambient temperature -25 ... +70 °C
- Soldering heat resistance 260 °C/5s
- RoHS compliance

## Connections

- Soldering pins for PCB, pre-soldered with Sn100

## Drive

- Direct current, neutral monostable

## Approvals

- cULus • TÜV

## Standards

- EN 50205 • IEC 61810-1 • UL 508

## Technical Data mechanical

Dimensions L x W x H (in mm)	36 x 12,5 x 29
Shock resistance NO-contact/NC-contact	10/10 g, 16 ms half sinus
Vibration resistance NO-contact/NC-contact	5/5 g, 10 – 55 Hz
Operating time NC-contact, contact opens	typical 6 ms
Operating time NO-contact, contact closes	typical 12 ms
Releasing time NO-contact, contact opens	typical 4 ms
Releasing time NC-contact, contact closes	typical 6 ms
Mechanical service life (without load)	>10 <sup>7</sup> cycles
Weight	30 g

## Technical Data electrical

Max. switching capacity	AC 1.500 VA, DC *W
Max. switching voltage	AC 230/240 V, DC *V
Max. switching current	6 A
Constant current I <sub>th2</sub>	6 A
Constant current I <sub>th2</sub> at the same time over 2 contacts	4,2 A
Constant current I <sub>th2</sub> at the same time over 3 contacts	3,4 A
Switching capacity NO-contact/NC-contact	AC-15 230/240 V I <sub>e</sub> =4/1,2 A
NO-contact/NC-contact	DC-13 24 V I <sub>e</sub> =2/1,2 A
Electrical service life (with nominal load)	>10 <sup>5</sup> cycles
Short-circuit capacity 1.000 A/AC 230 V	6 A gL/gG-fuse
* see DC-switching capacity	

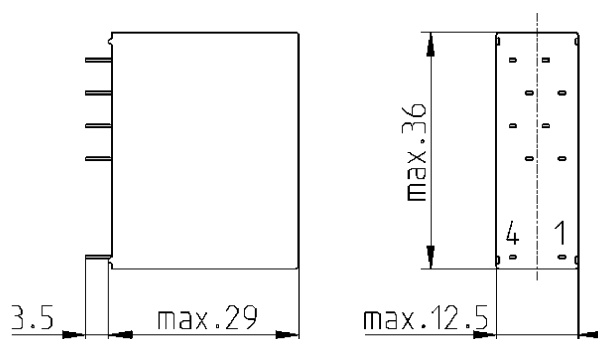
## Insulation

Over voltage category (Ü) = III  
 Degree of pollution (V) = 2  
 Insulating material group II

B-I = Basic insulation  
 V-I = Reinforced (double) insulation

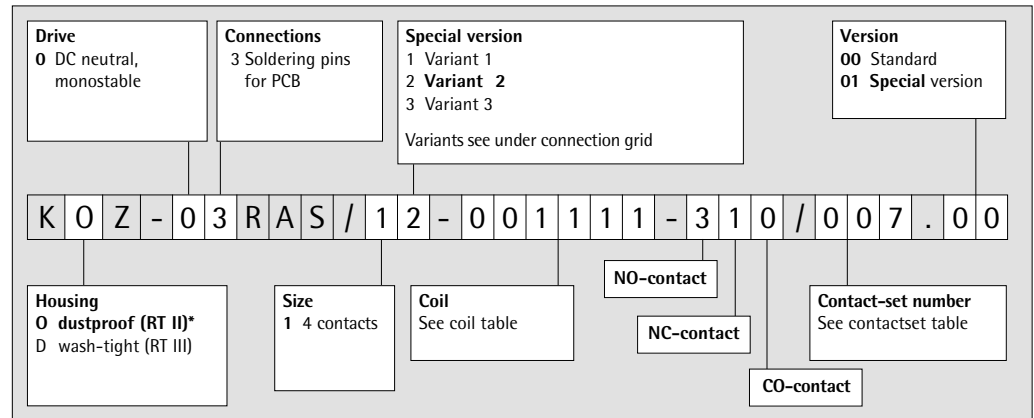
Insulation between	Nominal voltage network system		Air-/creeping distance	Test voltage 50Hz/60s
	AC 120/240 V	AC 230/400		
Contact - Contact	V-I	B-I	> 3 mm	AC 2.500 V
Contactset - Drive	V-I	B-I	> 3 mm	AC 4.000 V

## Dimensions



# Safety Relay K-RAS

## Type key



\* Preferred version

## Contactset table

Variants see under connection grid	Number of contacts NO/NC/CO-contacts	AgSnO <sub>2</sub> + 0,2 μm Au	AgSnO <sub>2</sub> + 2 μm Au	Contact material
<b>Variant 1</b>	220	001	002	Contactset-number
<b>Variant 1</b>	310	003	004	
<b>Variant 2</b>	220	005	006	
<b>Variant 2</b>	310	007	008	
<b>Variant 3</b>	220	014	016	
<b>Variant 3</b>	310	015	017	

All values at ambient temperature  $T_u = 20\text{ °C}$

## Contactset table

Coil-No.	Resistance R/Ω	Resistance-tolerance±	U <sub>1</sub> /V	U <sub>2</sub> /V	U <sub>3</sub> /V	U <sub>rück</sub> /V	Printing U <sub>nom</sub> /V
1020	45	7%	3,7	10,0	9	0,2	6
1180	190	8%	8,1	20,4	20	0,5	12
1111	730	7%	14,9	40,2	37	1,0	24
1006	2.770	9%	30,5	77,8	74	1,9	48
1094	4.950	10%	42,9	103,4	101	2,6	60
1002	15.440	14%	77,2	180,4	174	4,5	110

U<sub>1</sub>: Minimum operating voltage with consideration of coil self heating

U<sub>2</sub>: Thermal restricted maximum coil voltage

U<sub>3</sub>: Maximum admissible coil voltage to realize a contact gap of > 0.5 mm also at a contact fault

U<sub>rück</sub>: Releasing voltage

Further coils are possible and available

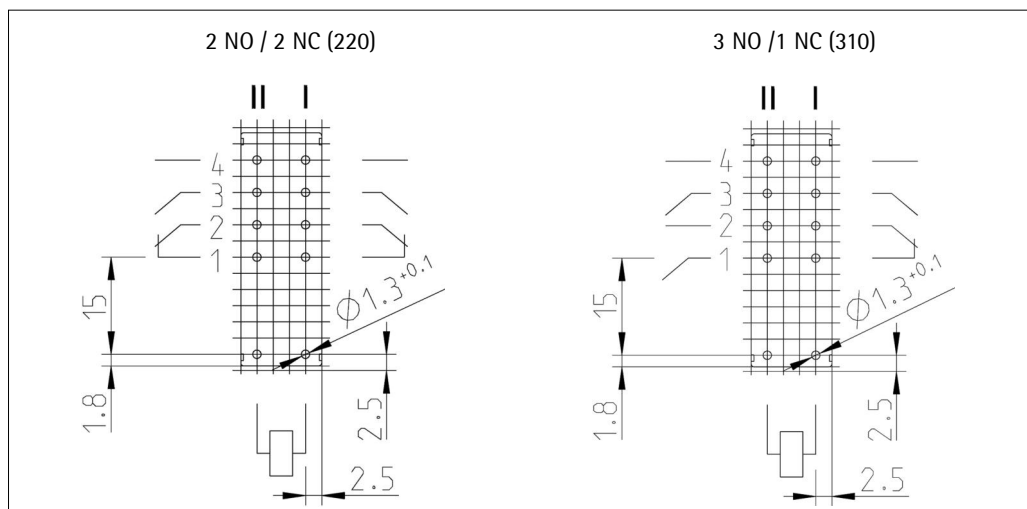
# Safety Relay K-RAS

## Running types

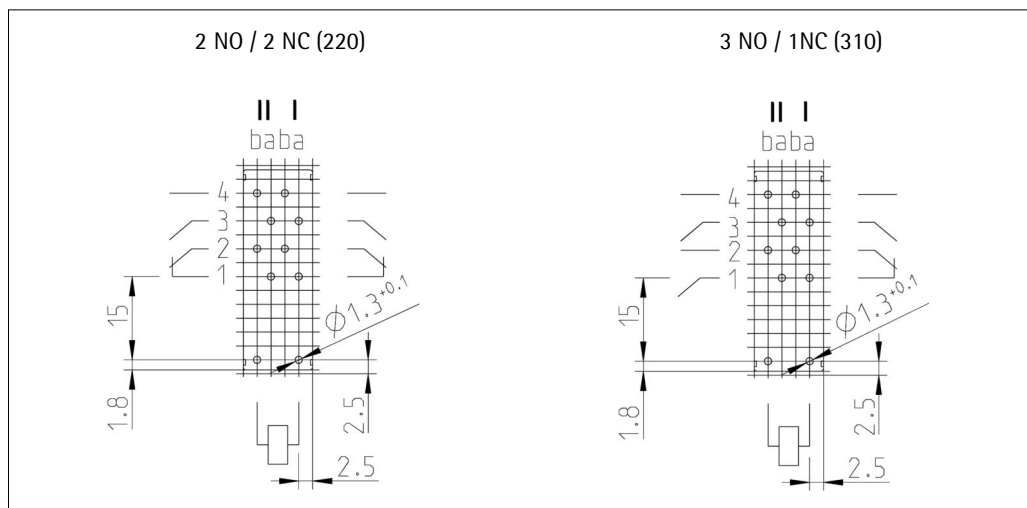
Article-No.	Type key	Printing U <sub>nom</sub>	U <sub>1</sub> /V	U <sub>2</sub> /V	U <sub>3</sub> /V	U <sub>Rück</sub> /V
RAS-2702	KOZ-03RAS/12-001111-310/008.00	DC 24 V	14,9	40,2	37	1,0
RAS-2704	KOZ-03RAS/12-001111-310/007.00	DC 24 V	14,9	40,2	37	1,0
RAS-2705	KOZ-03RAS/11-001111-310/003.00	DC 24 V	14,9	40,2	37	1,0
RAS-2709	KOZ-03RAS/12-001111-220/006.00	DC 24 V	14,9	40,2	37	1,0
RAS-2710	KOZ-03RAS/11-001111-220/002.00	DC 24 V	14,9	40,2	37	1,0
RAS-2711	KOZ-03RAS/12-001180-220/006.00	DC 12 V	8,1	20,4	20	0,5
RAS-2713	KOZ-03RAS/11-001111-220/001.00	DC 24 V	14,9	40,2	37	1,0
RAS-2714	KOZ-03RAS/12-001180-310/008.00	DC 12 V	8,1	20,4	20	0,5
RAS-2721	KOZ-03RAS/12-001111-220/005.00	DC 24 V	14,9	40,2	37	1,0
RAS-2722	KOZ-03RAS/11-001180-220/001.00	DC 12 V	8,1	20,4	20	0,5
RAS-2723	KOZ-03RAS/11-001180-310/003.00	DC 12 V	8,1	20,4	20	0,5
RAS-2724	KOZ-03RAS/11-001180-220/002.00	DC 12 V	8,1	20,4	20	0,5
RAS-2725	KOZ-03RAS/11-001180-310/004.00	DC 12 V	8,1	20,4	20	0,5
RAS-2727	KOZ-03RAS/12-001180-310/007.00	DC 12 V	8,1	20,4	20	0,5
RAS-2731	KOZ-03RAS/12-001006-220/005.00	DC 48 V	30,5	77,8	74	1,9
RAS-2733	KOZ-03RAS/12-001006-220/006.00	DC 48 V	30,5	77,8	74	1,9
RAS-2734	KOZ-03RAS/12-001006-310/008.00	DC 48 V	30,5	77,8	74	1,9
RAS-2748	KOZ-03RAS/12-001002-310/008.00	DC 110 V	77,2	180,4	174	4,5
RAS-2767	KOZ-03RAS/12-001111-220/006.00	DC 24 V	14,9	40,2	37	1,0
RAS-2768	KOZ-03RAS/12-001180-220/006.00	DC 12 V	8,1	20,4	20	0,5

## Connection grid Few on soldering side

### Variant 1



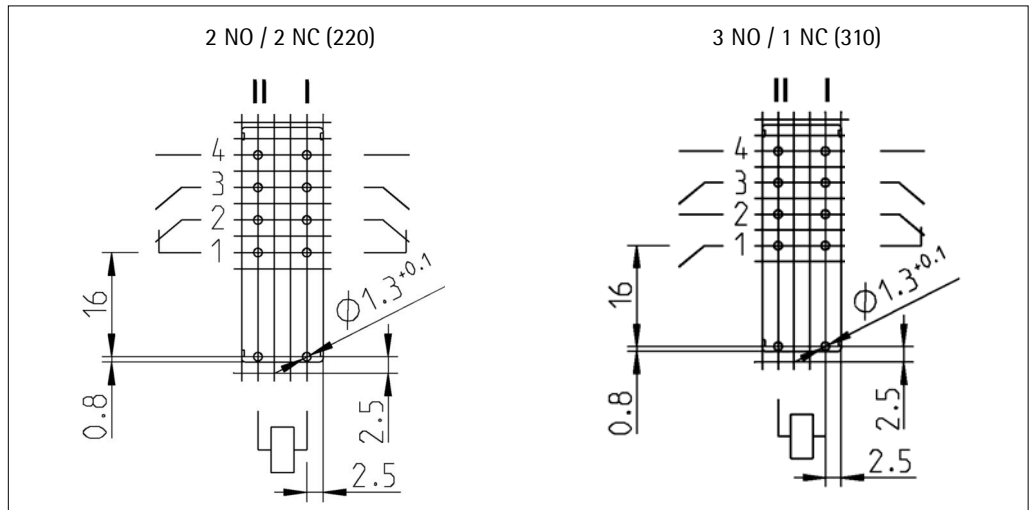
### Variant 2



# Safety Relay K-RAS

**Connection grid**  
Few on soldering side

Variant 3



**Diagram**

