

Safety Relay K-ROS



Technical Data mechanical

General

- 4 contacts
- Forced guided contact set
- According to EN 50205, application type A
- Ambient temperature – 15 ... + 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 electrical

Dimensions L x W x H (in mm)	42 x 16 x 32,2
Shock resistance NO-contact/NC-contact	30/30 g, 11 ms half sinus
Vibration resistance NO-contact/NC-contact	5/5 g, 10 – 55 Hz
Operating time NC-contact, contact opens	typical 9 ms
Operating time NO-contact, contact closes	typical 12 ms
Releasing time NO-contact, contact opens	typical 5 ms
Releasing time NC-contact, contact closes	typical 8 ms
Electrical service life (without load)	>10 ⁷ cycles
Weight	35 g

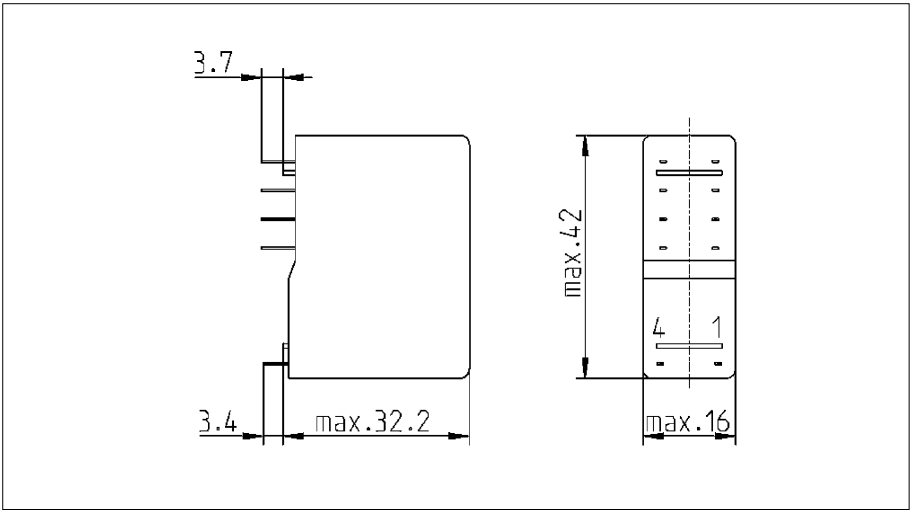
Max. switching capacity	AC 1.840 VA, DC *W
Max. switching voltage	AC 230/240 V, DC *V
Max. switching current	8 A
Constant current I _{th}	8 A
Constant current I _{th2} at the same time over 2 contacts	5,6 A
Constant current I _{th2} at the same time over 3 contacts	4,6 A
Switching capacity	AC-15 230/240 V I _e = 4 A DC-13 24 V I _e = 1,2 A
Electrical service life (with nominal load)	>10 ⁵ cycles
Short-circuit capacity 1.000 A/AC 230 V	10 A gL/gG-fuse
* see DC switching capacity	

Insulation

Over voltage category (Ü) III	B-I = Basic insulation
Degree of pollution (V) 2	V-I = Re-inforced (double) insulation
Insulating material group II	

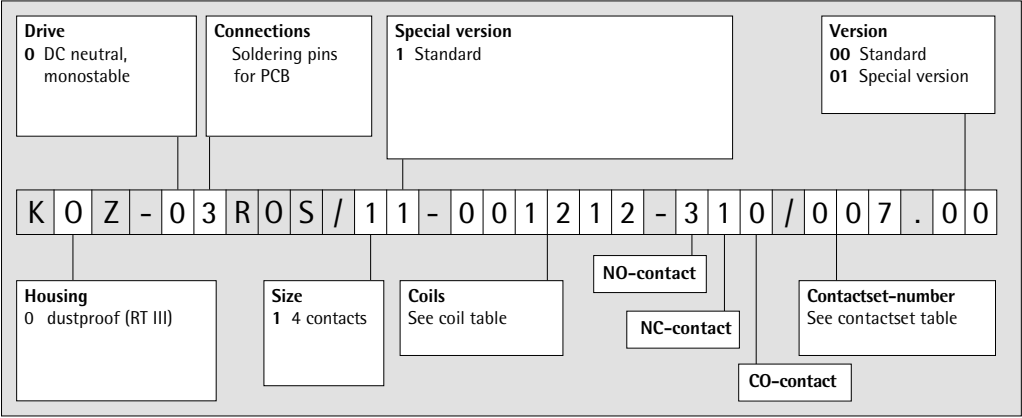
Insulation between	Nominal voltage network system		Air-/creeping distance ^c	Test voltage 50 Hz/60s
	AC 120/240 V	AC 230/400 V		
Contact – Contact	V-I	B-I	> 3 mm	AC 2.500 V
Contactset – Drive	V-I	B-I	> 3 mm	AC 2.500 V

Dimensions



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Type key



Contactset table

Number of contacts NO/NC/CO-contacts	AgCdO	AgNi * + 0,2 µm Au	AgNi * + 10 µm Au	AgSnO ₂ + 0,2 µm Au	AgSnO ₂ + 2 µm A	Contact material
220	001	002	003	004	009	Contactset Number
310	005	006	007	008	01	

* For new projects on request

Coil table

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

Coil-No.	Resistance R/Ω	Resistance- tolerance ±	U ₁ /V	U ₂ /V	U ₃ /V	U _{rück} /V	Printing U _{nom} /V
1124	25	5%	3,4	7,7	8	0,2	6
1016	155	8%	8,7	18,9	19	0,5	12
1212	625	7%	17,5	38,2	39	1,0	24
1208	2.100	7%	31,5	69,8	70	1,7	48
1306	4.000	9%	45,6	95,9	98	2,5	60
1204	11.000	11%	73,7	157,9	156	3,9	110
1096	66.000	16%	197,0	379,1	382	9,5	250

U₁: Minimum operating voltage with consideration of coil self heating
U₂: Thermal restricted maximum coil voltage
U₃: Maximum admissible coil voltage to realize a contact gap of > 0.5 mm also at a contact fault
U_{rück}: Releasing voltage

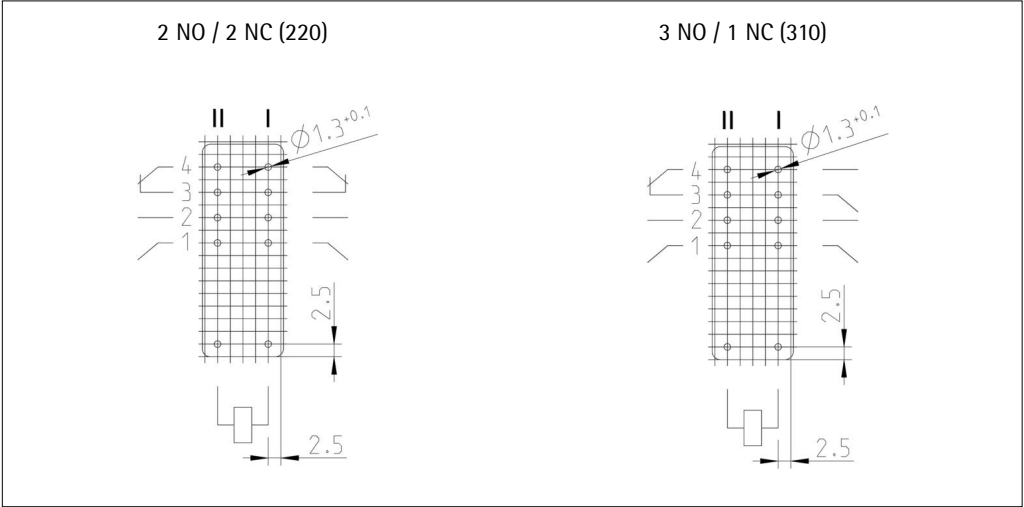
Further coils are possible and available

Running types

Article-No.	Type key	Printing U _{nom}	U ₁ /V	U ₂ /V	U ₃ /V	U _{rück} /V
ROS-2500	KOZ-03ROS/11-001212-220/002.00	DC 24 V	17,5	38,2	39	1,0
ROS-2502	KOZ-03ROS/11-001212-310/006.00	DC 24 V	17,5	38,2	39	1,0
ROS-2503	KOZ-03ROS/11-001212-310/005.00	DC 24 V	17,5	38,2	39	1,0
ROS-2504	KOZ-03ROS/11-001016-220/002.00	DC 12 V	8,7	18,9	19	0,5
ROS-2505	KOZ-03ROS/11-001212-220/003.00	DC 24 V	17,5	38,2	39	1,0
ROS-2506	KOZ-03ROS/11-001212-220/004.00	DC 24 V	17,5	38,2	39	1,0
ROS-2508	KOZ-03ROS/11-001212-310/008.00	DC 24 V	17,5	38,2	39	1,0
ROS-2517	KOZ-03ROS/11-001016-310/006.00	DC 12 V	8,7	18,9	19	0,5
ROS-2526	KOZ-03ROS/11-001212-310/010.00	DC 24 V	17,5	38,2	39	1,0
ROS-2542	KOZ-03ROS/11-001204-310/005.00	DC 110 V	73,7	157,9	156	3,9
ROS-2543	KOZ-03ROS/11-001212-220/009.00	DC 24 V	17,5	38,2	39	1,0
ROS-2551	KOZ-03ROS/11-001016-220/009.00	DC 12 V	8,7	18,9	19	0,5
ROS-2553	KOZ-03ROS/11-001208-220/004.00	DC 48 V	31,5	69,8	70	1,7
ROS-2554	KOZ-03ROS/11-001016-220/004.00	DC 12 V	8,7	18,9	19	0,5
ROS-2555	KOZ-03ROS/11-001016-310/008.00	DC 12 V	8,7	18,9	19	0,5
ROS-2558	KOZ-03ROS/11-001208-310/008.00	DC 48 V	31,5	69,8	70	1,7

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Connection grid
View on soldering side



Diagram

