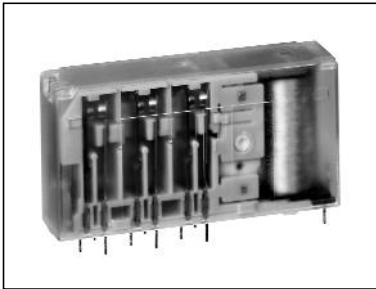


Safety Relay H-470



General

- 4 or 6 contacts
- Forced guided contact set
- According to EN 50205, Application type A
- Ambient temperature -25 ... +80 °C
- Soldering heat resistance 260 °C/5s
- RoHS compliance
- Reinforced insulation
- Fault tolerant contact behavior

Connections

- Soldering pins for PCB, pre-soldered with Sn100

Drive

- Direct current, polarized monostable

Standards

- EN 50205 • IEC 61810-1

Technical Data mechanical

Dimensions L x W x H (in mm)	Size 1: 56 x 17 x 35 Size 2: 68 x 17 x 35
Shock resistance NO-contact/NC-contact	10/10 g, 11 ms Half sinus
Vibration resistance NO-contact/NC-contact	5/5 g, 10 – 100 Hz
Operating time NC-contact, contact opens	typical 8 ms
Operating time NO-contact, contact closes	typical 18 ms
Releasing time NO-contact, contact opens	typical 4 ms
Releasing time NC-contact, contact closes	typical 8 ms
Mechanical service life (without load)	>10 ⁷ cycles
Weight	Size 1: 62 g Size 2: 70 g

Technical Data electrical

Max. switching capacity	AC 2.000 VA, DC *W
Max. switching voltage	AC 230/240 V, DC *V
Max. switching current	10 A
Constant current I _{th2}	10 A
Constant current I _{th2} at the same time over 2 contacts	8,0 A
Constant current I _{th2} at the same time over 3 contacts	7,0 A
Constant current I _{th2} at the same time over 4 contacts	6,0 A
Switching capacity	AC-15 230/240 V I _e = 1,5 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

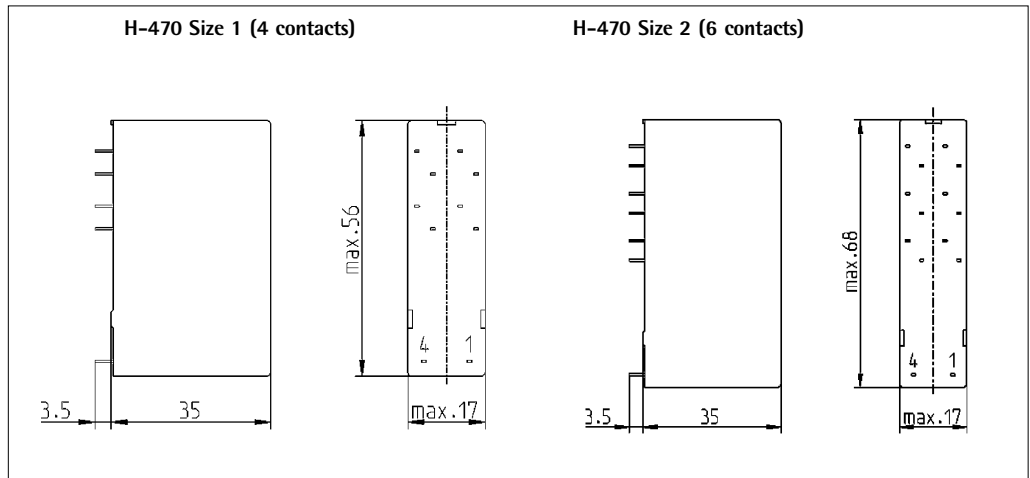
Over voltage category (Ü) III	B-I = Basic insulation
Degree of pollution (V) 2	V-I = Reinforced (double) insulation
Insulating material group II	

Insulation between	Nominal voltage network system		Air-/creeping distance	Test voltage 50Hz/60s
	AC 120/240 V	AC 230/400 V		
Drive – Contact – group A*	V-I	B-I	> 3,0 mm	2.500 V
Drive – Contact – group B*	V-I	V-I	> 5,5 mm	4.000 V
Contacts within contact group A	V-I	B-I	> 3,0 mm	2.500 V
Contacts within contact group B	V-I	V-I	> 5,5 mm	4.000 V
Contact group A and B	V-I	V-I	> 5,5 mm	4.000 V

* For contact groups A and B see under connection grid

Safety Relay H-470

Dimensions



Type key

Drive 4 DC polarized, monostable	Connections 3 Soldering pins for PCB	Special version 1 Standard	Version 00 Standard 01 Special version
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H O Z - 4 3 4 7 0 / 1 1 - 0 0 1 0 8 0 - 3 1 0 / 0 0 1 . 0 0

Housing O dustproof (RT II)* D wash-tight (RT III) upon request	Size 1 4 contacts 2 6 contacts	Coil See coil table	NO-contact	NC-contact	CO-contact	Contactset number See contactset table
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* Preferred types

Contactset table

Number of contacts NO/NC/CO-contacts	AgCdO +0,2 μm Au	AgCdO +2 μm Au	AgSnO ₂ +0,2 μm Au	AgSnO ₂ +2 μm Au	Contact material
220	005	006	007	008	Contactset number
310	001	002	003	004	
420	013	014	015	016	
510	009	010	011	012	

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

Coil table

Coil-No.	Resistance R/Ω	Resistance- tolerance ±	U_1/V	U_2/V	U_3/V	$U_{rück}/V$	Printing U_{nom}/V
1025	40	5%	4,6	11,2	22	0,9	6
1081	155	6%	9,3	22,0	43	1,8	12
1080	610	8%	19,0	43,4	86	3,6	24
1068	1.560	7%	30,5	69,7	140	5,8	48
1082	2.500	7%	38,4	88,1	176	7,3	60
1083	9.210	9%	77,3	167,9	343	14,3	110

U_1 : Minimum operating voltage with consideration of coil self heating

U_2 : Thermal restricted maximum coil voltage

U_3 : 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

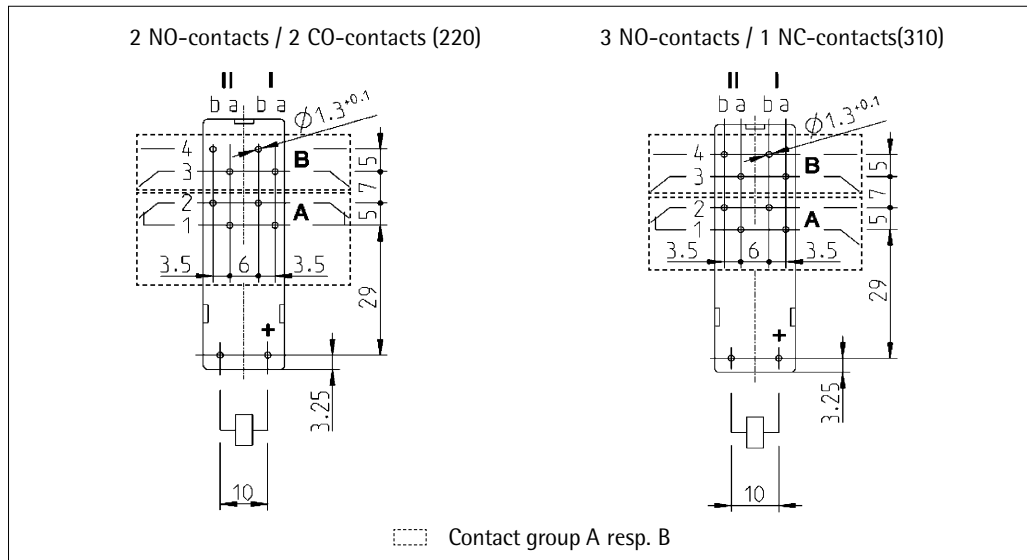
Safety Relay H-470

Running type

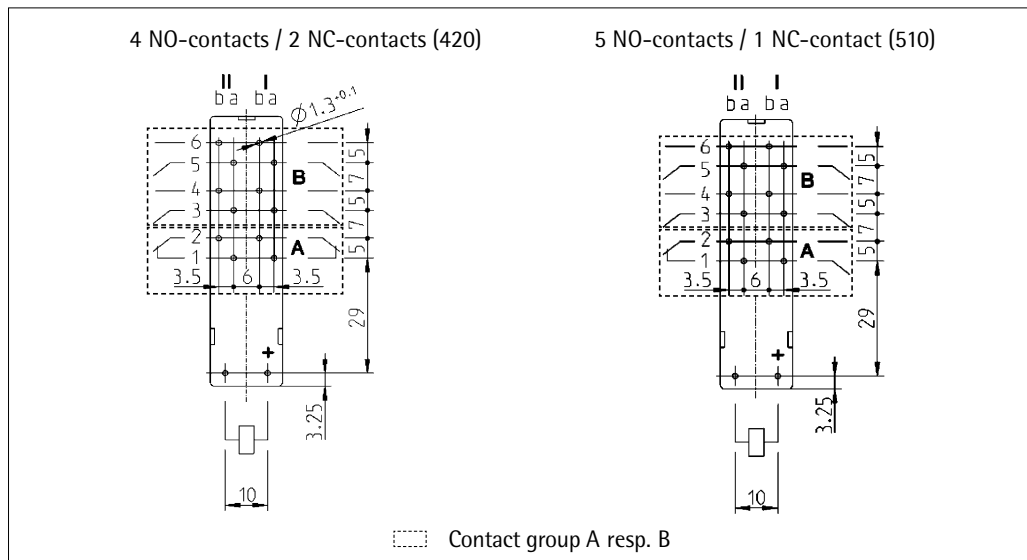
Article-No.	Type key	Printing U_{nom}	U_1/V	U_2/V	U_3/V	$U_{rück}/V$
470-1004	HOZ-43470/11-001080-310/001.00	DC 24 V	19,0	43,4	86	3,6
470-1008	HOZ-43470/11-001081-310/002.00	DC 12 V	9,3	22,0	43	1,8
470-1016	HOZ-43470/11-001080-220/005.00	DC 24 V	19,0	43,4	86	3,6
470-1022	HOZ-43470/11-001080-220/006.00	DC 24 V	19,0	43,4	86	3,6
470-1028	HOZ-43470/21-001080-510/009.00	DC 24 V	19,0	43,4	86	3,6
470-1032	HOZ-43470/21-001081-510/010.00	DC 12 V	9,3	22,0	43	1,8
470-1046	HOZ-43470/21-001080-420/014.00	DC 24 V	19,0	43,4	86	3,6
470-1050	HOZ-43470/21-001025-510/009.00	DC 6 V	4,6	11,2	22	0,9

Connection grid Few on soldering side

Size 1



Size 2



Safety Relay H-470

Diagrams

