

# Safety Relay H-472



## General

- 7 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 (double) insulation
- Fault-tolerant contact behavior
- Signal relay according to UIC736e

## Connections

- Soldering pins for PCB, pre-soldered with Sn100

## Drive

- Direct current, polarized monostable

## Approvals

- cUL/US • TÜV

## Standards

- EN 50205 • IEC 61810-1 • UL 508

## Technical Data mechanical

Dimensions L x W x H (in mm)	54,5 x 35,7 x 15,7
Shock resistance NO-contact/NC-contact	10/8 g, 11 ms half sinus
Vibration resistance NO-contact/NC-contact	10/5 g, 10 – 200 Hz
Operating time NC-contact, contact opens	typical 16 ms
Operating time NO-contact, contact closes	typical 21 ms
Releasing time NO-contact, contact opens	typical 6 ms
Releasing time NC-contact, contact closes	typical 11 ms
Mechanical service life (without load)	>10 <sup>7</sup> cycles
Weight	55 g

## Technical Data electrical

Max. switching capacity	AC 1.380 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 same time over 2 contacts	6 A
Constant current I <sub>th2</sub> at same time over 3 contacts	4,9 A
Constant current I <sub>th2</sub> at same time over 4 contacts	4,2 A
Constant current I <sub>th2</sub> at same time over 5 contacts	3,8 A
Switching capacity AC-15 230/240 V	I <sub>e</sub> = 3,0 A
DC-13 24 V	I <sub>e</sub> = 2,5 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

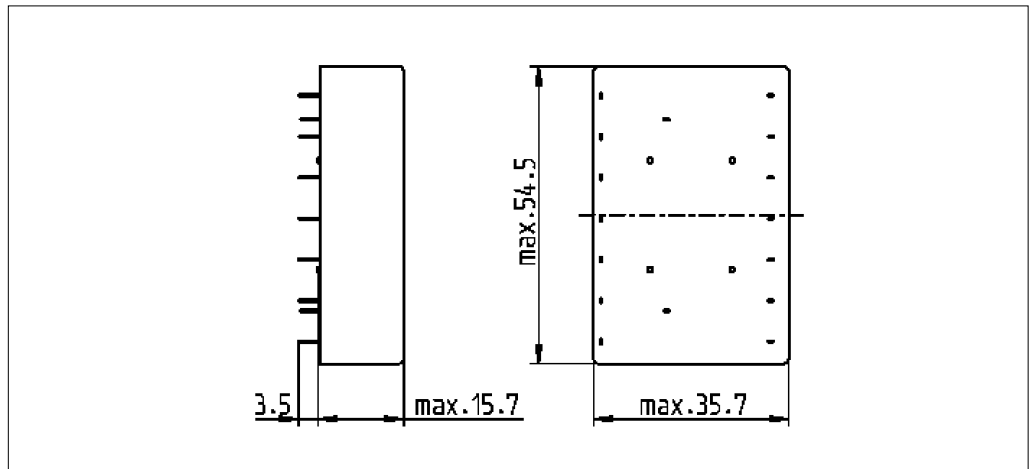
Over voltage category (Ü) III	B-I = Basic insulation
Degree of pollution (V) 2	V-I = Reinforced (double) insulation
Insulating material group II	

Insulation between	Nominal voltage network system		Air-/creeping distance	Test voltage 50 Hz/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 contactgroup A	V-I	B-I	> 3,0 mm	2.500 V
Contacts within contactgroup B	V-I	V-I	> 5,5 mm	4.000 V
Contactgroup A and B	V-I	V-I	> 5,5 mm	4.000 V

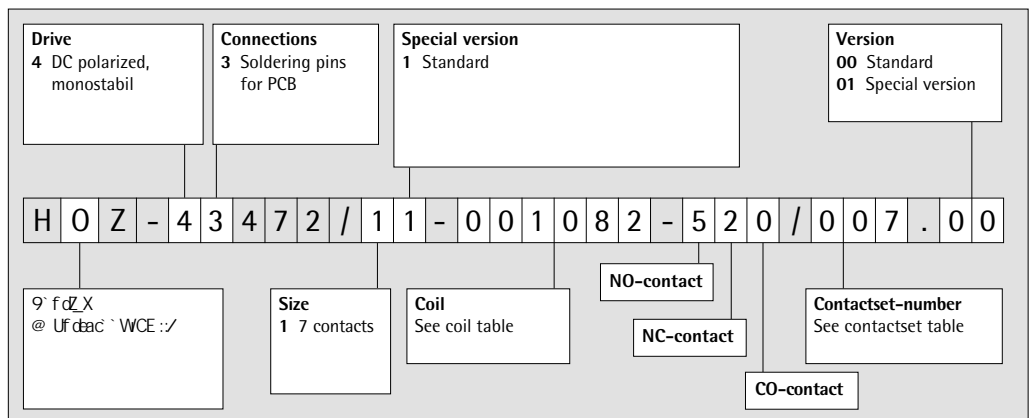
\* Contactgroup A and B see connection grid

# Safety Relay H-472

## Dimensions



## Type key



## Contactset table

Number of contacts NO/NC/CO-contacts	AgNi +0,2 µm Au	AgNi +2 µm Au	AgNi +5 µm Au	AgSnO <sub>2</sub> +0,2 µm Au	AgSnO <sub>2</sub> +2 µm Au	Contact- material
430	003	004	010	001	002	Contactset- number
520	007	008	012	005	006	

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

## Coil 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
1022	40	6%	4,0	11,3	13	0,5	6
1016	150	8%	8,1	21,7	27	1,0	12
1012	600	7%	16,2	43,6	54	2,1	24
1078	2.400	9%	32,1	86,4	104	4,0	48
1079	3.600	9%	39,8	105,9	129	5,0	60
1090	12.300	11%	75,0	194,2	235	9,1	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

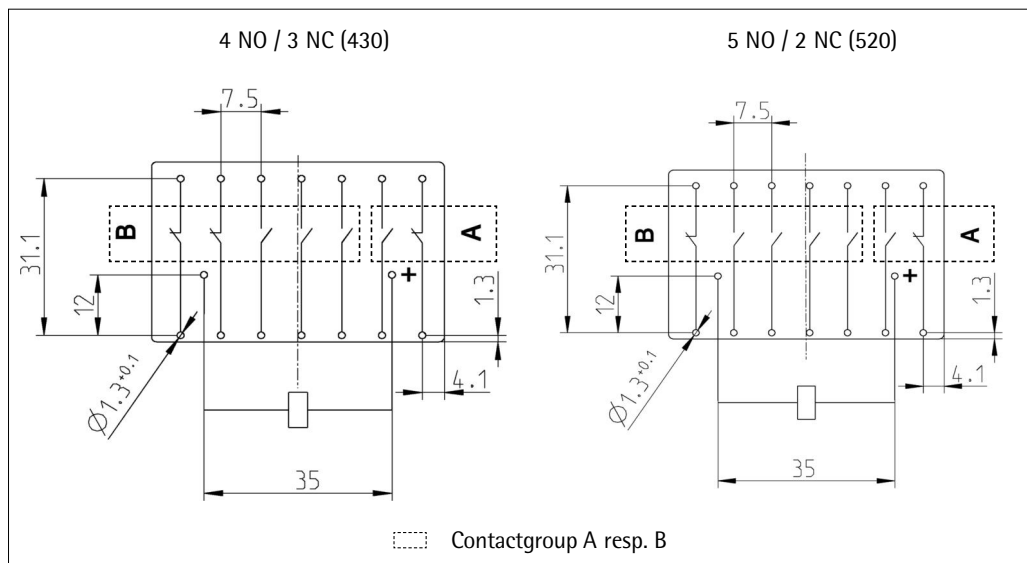
Further coils are possible and available.

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## Running types

Article-No.	Type key	Printing $U_{nom}$	$U_1/V$	$U_2/V$	$U_3/V$	$U_{rück}/V$
472-1053	HOZ-43472/11-001012-520/006.00	DC 24 V	16,2	43,6	54	2,1
472-1063	HOZ-43472/11-001016-430/002.00	DC 12 V	8,1	21,7	27	1,0
472-1064	HOZ-43472/11-001012-430/002.00	DC 24 V	16,2	43,6	54	2,1
472-1080	HOZ-43472/11-001090-520/005.00	DC 110 V	75,0	194,2	235	9,1
472-1081	HOZ-43472/11-001012-430/004.00	DC 24 V	16,2	43,6	54	2,1
472-1094	HOZ-43472/11-001079-430/002.00	DC 60 V	39,8	105,9	129	5,0
472-1095	HOZ-43472/11-001022-430/002.00	DC 6 V	4,0	11,3	13	0,5
472-1100	HOZ-43472/11-001079-430/001.00	DC 60 V	39,8	105,9	129	5,0
472-1101	HOZ-43472/11-001079-430/002.00	DC 60 V	39,8	105,9	129	5,0
472-1102	HOZ-43472/11-001012-520/012.00	DC 24 V	16,2	43,6	54	2,1

## Connection grid View on soldering side



## Diagram

