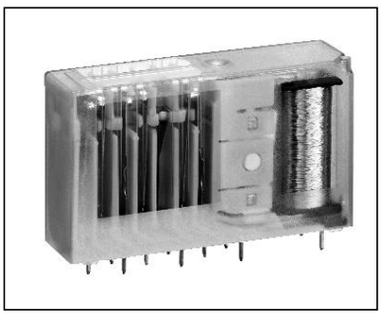
Safety Relay H-468



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

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)		Size 1: 44,6 x 12,5 x 30 Size 2: 50 x 12,5 x 30
Shock resistance NO-contact/NC-contact		10/9 g, 16 ms half sinus
Vibration resistance NO-contact/NC-contact		5/5 g, 5 – 200 Hz
Operating time NC-contact, contact opens		typical 15 ms
Operating time NO-contact, contact closes		typical 17 ms
Releasing time NO-contact, contact opens		typical 6 ms
Releasing time NC-contact, contact closes		typical 8 ms
Mechanical service life (without load)		>10^7 cycles
Weight	Size 1: Size 2:	35 g 38 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		8 A
		Size 1
Constant current I_{th_2}		6 A
Constant current I_{th_2} at same time over 2 contacts		4,2 A
Constant current I_{th_2} at same time over 3 contacts		3,5 A
		Size 2
Constant current I_{th_2}		6 A
Constant current I_{th_2} at same time over 2 contacts		5,2 A
Constant current I_{th_2} at same time over 3 contacts		4,2 A
Constant current I_{th_2} at same time over 4 contacts		3,7 A
Switching capacity	AC-15 230/240 V DC-13 24 V	Ie = 4/2 A (contact AgNi/$AgSnO_2$) Ie = 2/1,5A (contact AgNi/$AgSnO_2$)
Electrical service life (with nominal load)		>10^5 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

Size 1

Insulation between	Nominal voltage network system		Air-/ creeping distance	Test voltage 50 Hz/60 s
	AC 120/240 V	AC 230/400 V		
Contact – Contact	V-I	B-I	> 3 mm	AC 2.000 V
Contactset – Drive	V-I	B-I	> 3 mm	AC 2.500 V

Size 2

Insulation between	Nominal voltage network system		Air-/ creeping distance	Test voltage 50 Hz/60 s
	AC 120/240 V	AC 230/400 V		
Drive-contact-group A*	V-I	B-I	> 3,0 mm	1.500 V
Drive-contact-group B*	V-I	V-I	> 5,5 mm	3.000 V
Contacts within contactgroup A	V-I	B-I	> 3,0 mm	1.500 V
Contacts within contactgroup B	V-I	B-I	> 3,0 mm	1.500 V
Contactgroup A and B	V-I	V-I	> 5,5 mm	3.000 V

* Contactgroup A and B see connection grid

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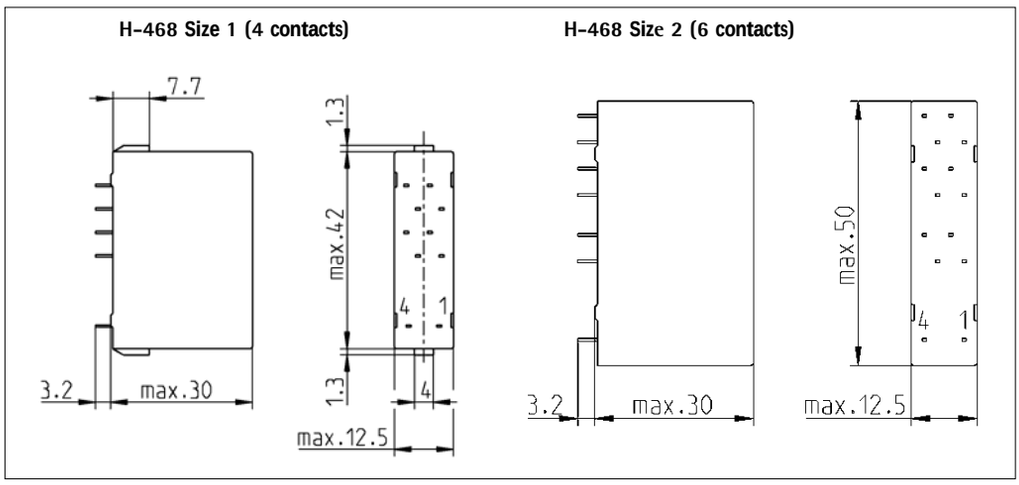
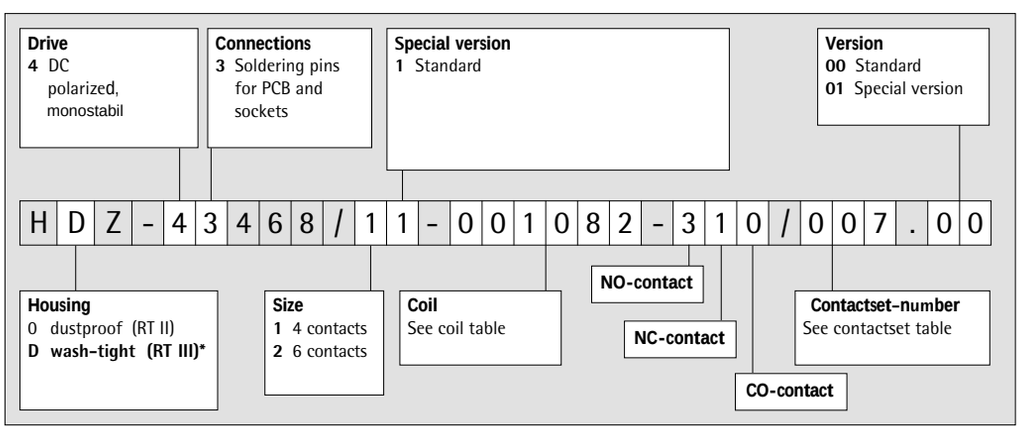
Dimensions



Type key



* **Preferred version**

Contactset table

Number of contacts NO/NC/CO-contacts	AgNi +0,2 µm Au	AgNi +2 µm Au	$AgSnO_2$ +0,2 µm Au	$AgSnO_2$ +2 µm Au	Contact material
220	002	008	010	012	Contactset number
310	001	007	009	011	
420	051	053	055	057	
510	050	052	054	056	

Coil table

All values at ambient temperature Tu = 20 °C

Coil-No.	Resistance R/Ω	Resistance-tolerance ±	U_1/V	U_2/V	U_3/V	$U_{rück}$/V	Printing U_{nom}/V
1088	67	7%	4,6	13,0	38	1,1	6
1080	255	8%	9,1	25,2	74	2,2	12
1082	1.020	8%	18,1	50,4	148	4,3	24
1083	3.910	9%	37,3	98,2	297	8,7	48
1084	6.140	10%	46,8	122,6	369	10,8	60
1002	18.855	14%	85,8	212,1	641	18,7	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.

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Running types

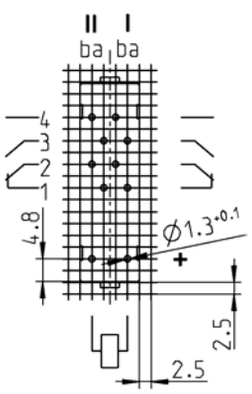
Article-No.	Type key	Printing U_{nom}	U_1/V	U_2/V	U_3/V	$U_{rück}$/V
468-1001	HDZ-43468/11-001088-310/001.00	DC 6 V	4,6	13,0	38	1,1
468-1002	HDZ-43468/11-001080-310/001.00	DC 12 V	9,1	25,2	74	2,2
468-1003	HDZ-43468/11-001082-310/001.00	DC 24 V	18,1	50,4	148	4,3
468-1009	HDZ-43468/11-001080-310/007.00	DC 12 V	9,1	25,2	74	2,2
468-1010	HDZ-43468/11-001082-310/007.00	DC 24 V	18,1	50,4	148	4,3
468-1012	HDZ-43468/11-001083-310/007.00	DC 48 V	37,3	98,2	297	8,7
468-1016	HDZ-43468/11-001080-220/002.00	DC 12 V	9,1	25,2	74	2,2
468-1017	HDZ-43468/11-001082-220/002.00	DC 24 V	18,1	50,4	148	4,3
468-1021	HDZ-43468/11-001002-220/002.00	DC 110 V	85,8	212,1	641	18,7
468-1023	HDZ-43468/11-001080-220/008.00	DC 12 V	9,1	25,2	74	2,2
468-1024	HDZ-43468/11-001082-220/008.00	DC 24 V	18,1	50,4	148	4,3
468-1026	HDZ-43468/11-001083-220/008.00	DC 48 V	37,3	98,2	297	8,7
468-1027	HDZ-43468/11-001084-220/008.00	DC 60 V	46,8	122,6	369	10,8
468-1064	HDZ-43468/11-001082-310/009.00	DC 24 V	18,1	50,4	148	4,3
468-1133	HOZ-43468/11-001082-310/001.01	DC 24 V	18,1	50,4	148	4,3
468-1140	HOZ-43468/11-001082-310/007.00	DC 24 V	18,1	50,4	148	4,3
468-1141	HOZ-43468/11-001082-220/008.00	DC 24 V	18,1	50,4	148	4,3
468-1160	HOZ-43468/11-001080-310/007.00	DC 12 V	9,1	25,2	74	2,2
468-1165	HDZ-43468/21-001082-510/050.00	DC 24 V	18,1	50,4	148	4,3
468-1166	HDZ-43468/21-001082-420/051.00	DC 24 V	18,1	50,4	148	4,3
468-1167	HOZ-43468/21-001082-510/050.00	DC 24 V	18,1	50,4	148	4,3
468-1168	HOZ-43468/21-001082-420/051.00	DC 24 V	18,1	50,4	148	4,3

Connection grid

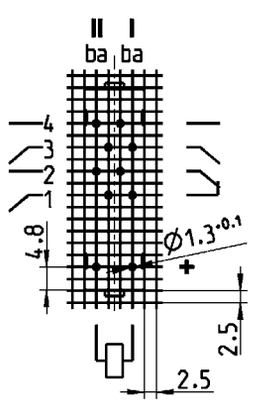
View on soldering side

Size 1

2 NO / 2 NC (220)

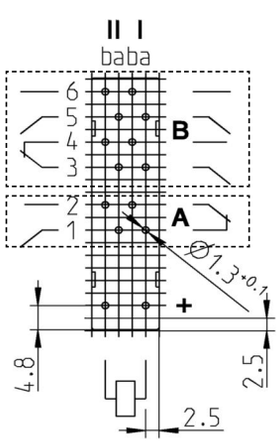


3 NO / 1 NC (310)

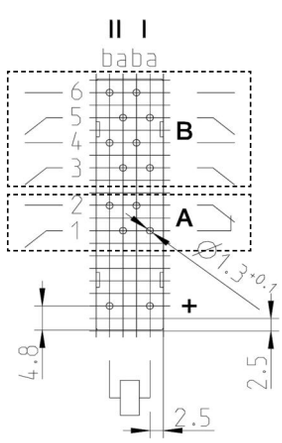


Size 2

4 NO / 2 NC (420)



5 NO /1 NC (510)



Contactgroup A resp. B

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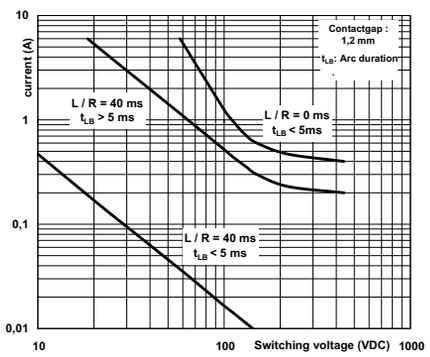
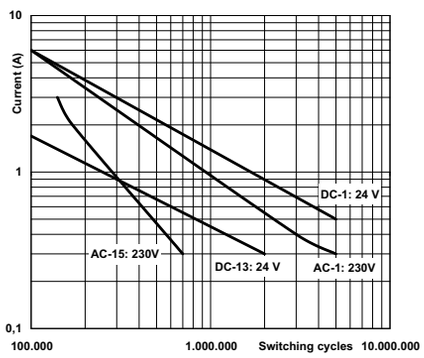
Diagram



DC-switching capacity



Electrical service life

Accessories

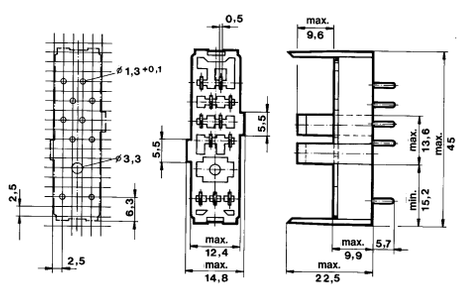
H-468/1
(4 contacts)

Socket

Removal tool

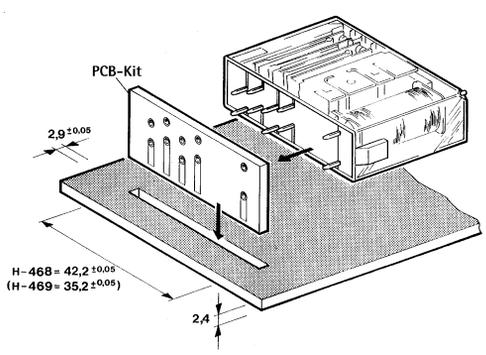
Article-No.: 468-8009

Sockets for PCB mounting
or for conventional wiring



Socket for PCB mounting, Article-No.: 468-8008
Socket for conventional wiring, Article-No.: 468-8010

PCB-kit for low profile mounting



Article-No.: 468-8006