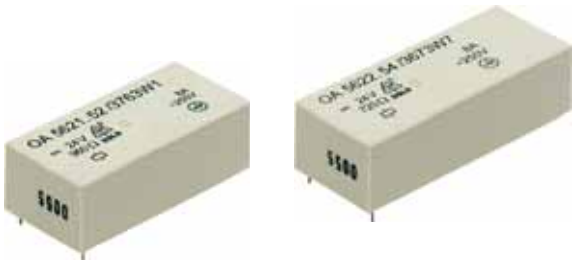
Safety relay
OA 5621, OA 5622

Alternatively with gold plated double contacts

- acc. to DIN EN 50 205, DIN EN 61 810-1, DIN EN 60 664-1
- with positively driven contacts
- low rated power consumption
- clearance and creepage distances ≥ 5,5 mm; that means double and reinforced insulation between all circuits
- high mechancial service life
- high temperature range
- high thermal continuous current
- extremly flat: only 15,5 mm high
- Version with double contacts possible, AgNi 0,15 + 5 µm Au-contacts
- Approvals: TÜV cULus

Applications:
ZH1/457 press controls
To be used in electrical circuits for safety applications
Escalators and walkways
Elevators for men and load



OA 5621 OA 5622

Technical data

Type			OA 5621	OA 5622
1. 0	Coil			
1. 1	Nominal voltage	DC V	6, 12, 24, 48, 60, 110 (others on request)	
1. 2	Nominal consumption	W	0,6	0,8
1.11	Voltage range	U_N	0,75 ... 1,4	
1.12	Thermal resistance	K/W	55 (mounting distance between relays ≥ 5 mm)	
2. 0	**Contacts**			
2. 1	Contact arrangement		2 NO contacts / 2 NC contacts 3 NO contacts / 1 NC contacts	2 NO contacts / 4 NC contacts 3 NO contacts / 3 NC contacts 4 NO contacts / 2 NC contacts 5 NO contacts / 1 NC contact
2. 2	Contact material		$AgSnO_2$ + 0,2 µm Au; AgNi 10 + 0,2 µm Au optionally + 5 µm Au	
2. 3	Rated insulation voltage	AC V	250	
	Switching voltage min./max.	V	AC/DC 10 / DC 250, AC 400 (AC/DC 100 mV / 60 V) [1]	
2. 4	Limiting continuous current I_{th}	A	3 x 8	5 x 8 (s. operating voltage limit curve)
	Switching current min./max.	A	> 10 mA[4] / 8 (1 mA / 0,3 A) [1]	
2. 5	Switching power min./max.	VA	3 / 2000 (1 mVA / 7 VA) [1]	
	Switching power min./max.	W	0,1[4] / 200 (1 mW / 7 W) [1] (see limit curve for arc-free operation)	
2. 6	Switching capacity			
	to DIN EN 60 947-5-1 AC 15	AC V/A	NC contact: 230 / 2;	NO contact: 230 / 3 (230/5)[6]
	DC 13	DC V/A	NC contact: 24 / 4;	NO contact: 24 / 4
	to UL 508		B300 / Q300	
2. 7	Electrical life		at 1 s On, 1 s Off [2] (see contacts service life)	
	at AC 230 V 5 A cos φ = 1	switching cycles	> 3 x 10^5 $AgSnO_2$	> 2,2 x 10^5 AgNi 10
	at AC 230 V 8 A cos φ = 1	switching cycles	> 1,5 x $AgSnO_2$	> 10^5 AgNi 10 [3]
	at DC 24 V 5 A ohmic	switching cycles	> 2 x 10^5 $AgSnO_2$	> 1,5 x 10^5 AgNi 10
	at DC 24 V 8 A ohmic	switching cycles	> 10^5 $AgSnO_2$	> 0,75 x 10^5 AgNi 10
2. 8	Switching frequency max.	switching cycles. / s	10	
2. 9	Response time / Release time	ms	typically 12 / typically 8	
2.10	Contact force	cN	≥ 8	
2.14	Contact gap	mm	> 0,5 [5]	
3. 0	**Other**			
3. 1	Mechanical life	switching cycles	> 20 x 10^6	
3. 2	Temperature range	°C	- 40 ... + 80	
3. 3	Degree of protection, housing		IP67 (RT III) IEC/EN 60 529	
3. 4	Housing		Thermoplast	
3. 5	Vibration resistance		10 ... 200 Hz; 0,35 mm amplitude; 5 g max. IEC/EN 60 068-2-6	

[1] Values for AgNi 10-contacts + 5 µm Au [2] at T_u = 60°C > 10^5 [3] at T_u = 60°C > 0,75 x 10^5 [4] Typical values
[5] over entire service life, even when under fault and at 1,4 x U_N [6] Values for $AgSnO_2$ contacts

All technical data in this list relate to the state at the moment of edition.
We reserve the right for technical improvements and changes at any time.

Technical data

3. 6	Climate resistance			Humid heat IEC/EN 60 068-2-30	
3. 8	Insulation according to IEC 60 664-1, EN 50 178				
	Rated insulation voltage		AC V	250	
	Contamination level			2	
	Overvoltage category			III	
	Test voltage	contact-coil (1 min)	AC kV eff.	4	
		contact-contact (1 min)	AC kV eff.	4	
	Transient volt.	contact-coil (1,2-50 µs)	kV	6	
	Clearance and creepage dist. as per IEC/EN 60 730, IEC/EN 60 335			≥ 5,5 mm	
3. 9	Weight		g	35	38

Standard variants

Design versions										
U_N (DC V)	Voltage-range (DC V)	R_{sp} Ω ± 10% OA5621	OA 5621 .48/ 3NO/1NC	OA 5621 .52/ 2NO/2NC	R_{sp} Ω ± 10% OA 5622	OA 5622 .18 3NO/3NC	OA 5622 .54/ 4NO/2NC	OA 5622 .60/ 5NO/1NC	R_{sp} Ω ± 10% OA 5622	OA 5622 .50 2NO/4NC
							$AgSnO_2$-contacts + 0,2 µm Au			
6	4,5 - 8,4	60	3721	3751	45	3601	3661	3691	38	3631
12	9,0 - 16,8	240	3722	3752	180	3602	3662	3692	150	3632
24	18,0 - 33,6	960	3723	3753	720	3603	3663	3693	600	3633
48	36,0 - 67,2	3 840	3724	3754	2 880	3604	3664	3694	2400	3634
60	45,0 - 84,0	6 000	3725	3755	4 500	3605	3665	3695	3800	3635
110	82,5 - 154,0	20 000	3726	3756	15 125	3606	3666	3696	12700	3636
								AgNi-contacts + 0,2 µm Au		
6	4,5 - 8,4	60	3731	3761	45	3611	3671	3701	38	3641
12	9,0 - 16,8	240	3732	3762	180	3612	3672	3702	150	3642
24	18,0 - 33,6	960	3733	3763	720	3613	3673	3703	600	3643
48	36,0 - 67,2	3 840	3734	3764	2 880	3614	3674	3704	2400	3644
60	45,0 - 84,0	6 000	3735	3765	4 500	3615	3675	3705	3800	3645
110	82,5 - 154,0	20 000	3736	3766	15 125	3616	3676	3706	12700	3646
								AgNi-contacts + 5 µm Au		
6	4,5 - 8,4	60	3741	3771	45	3621	3681	3711	38	3651
12	9,0 - 16,8	240	3742	3772	180	3622	3682	3712	150	3652
24	18,0 - 33,6	960	3743	3773	720	3623	3683	3713	600	3653
48	36,0 - 67,2	3 840	3744	3774	2 880	3624	3684	3714	2400	3654
60	45,0 - 84,0	6 000	3745	3775	4 500	3625	3685	3715	3800	3655
110	82,5 - 154,0	20 000	3746	3776	15 125	3626	3686	3716	12700	3656

Ordering example

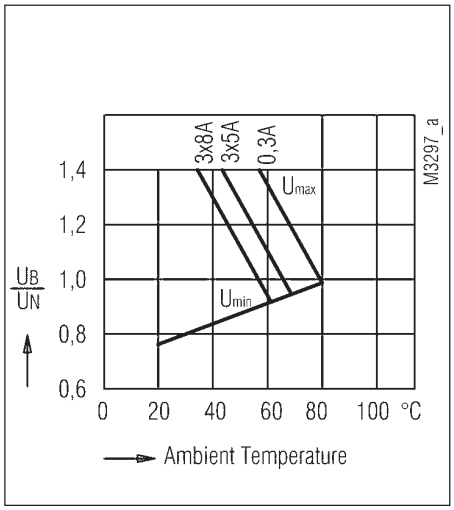
OA 5622 ._ _ /_ _ _ _ _ _ /61*)

- Pin configuration
- W = Wash proof (IP 67)
- Design version
- Contact arrangement
  - .50 2 NO contacts, 4 NC contacts
  - .18 3 NO contacts, 3 NC contacts
  - .54 4 NO contacts, 2 NC contacts
  - .60 5 NO contacts, 1 NC contact
- Type

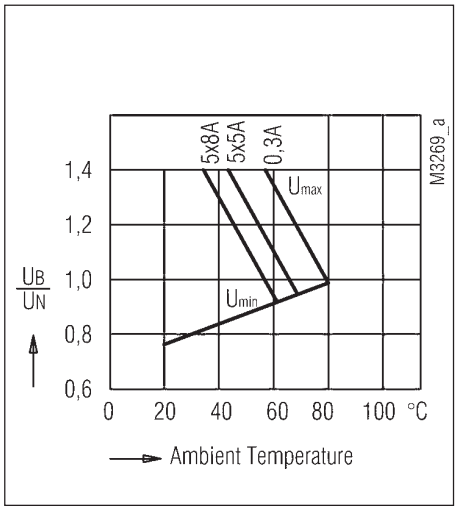
On request
version with double contacts

*) /61 cURus approval

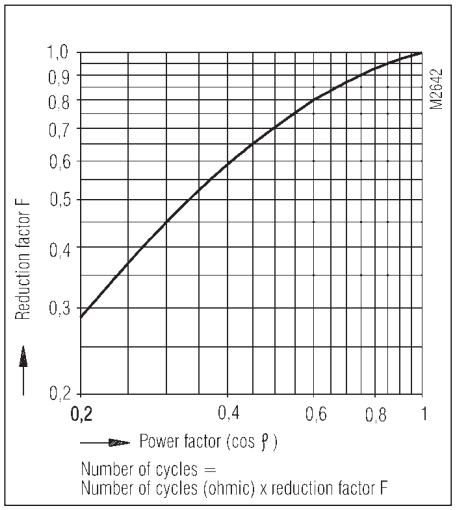
Characteristics



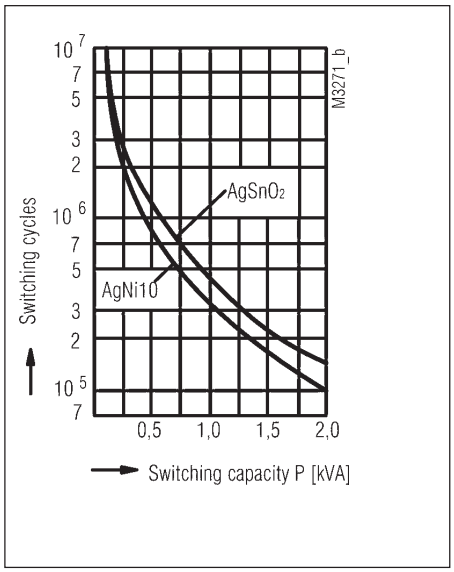
Operating voltage limit curve OA 5621



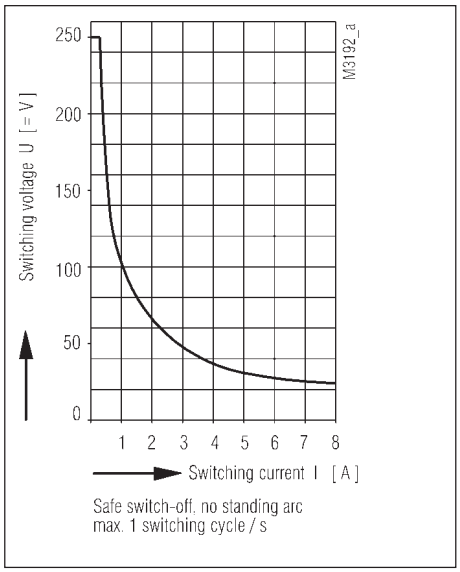
Operating voltage limit curve OA 5622



Reduction factor for inductive loads



Contact service life

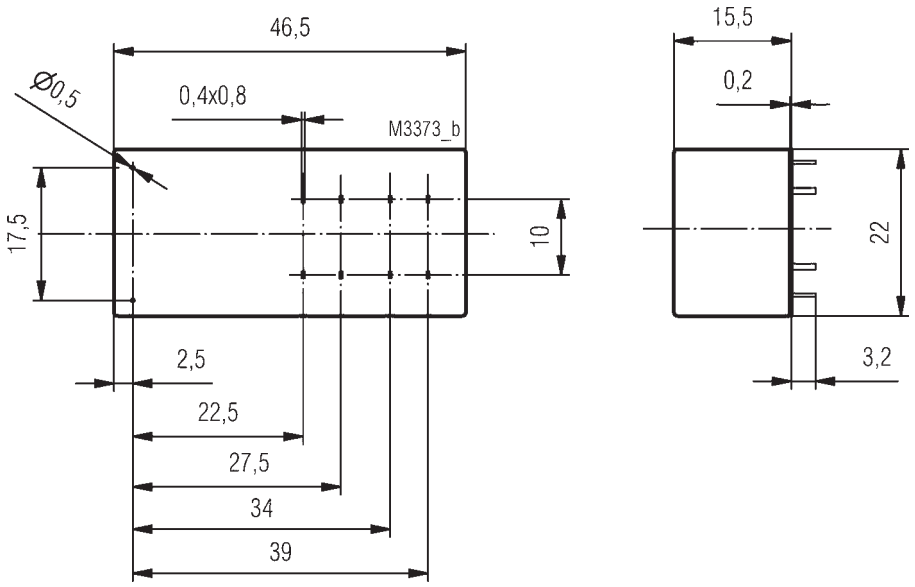


Limit curve for arc-free operation
(load limit curve)

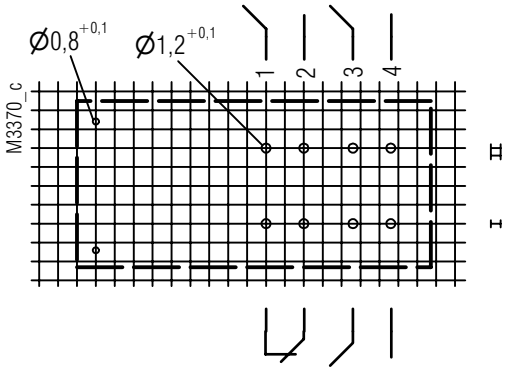
Dimensions, pin configuration, connection diagrams

OA 5621

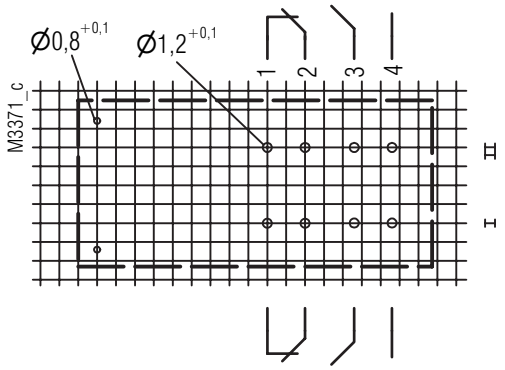
Pin Configuration W1



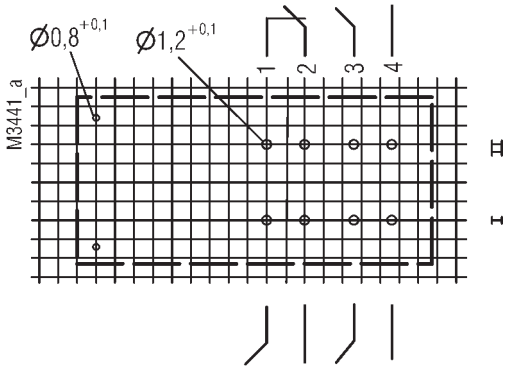
Drilling plan (solder side)



OA5621.48/____W1 3NO/1NC



OA5621.52/____W1 2NO/2NC



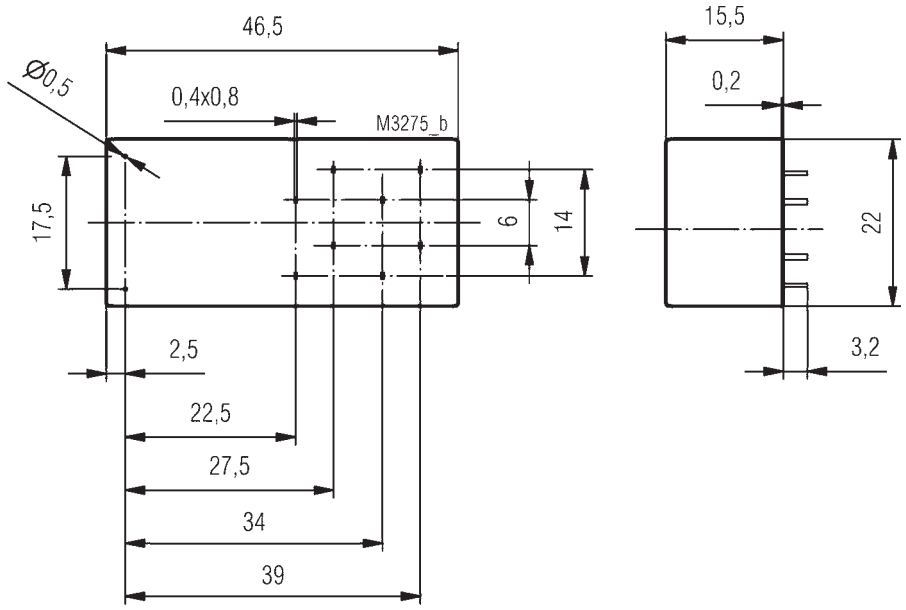
OA5621.48/____W5 1NC/3NO

Connection for basic grid divensions 2,50 mm as well as 2,54 mm according to IEC/EN 60 097, IEC 60 326

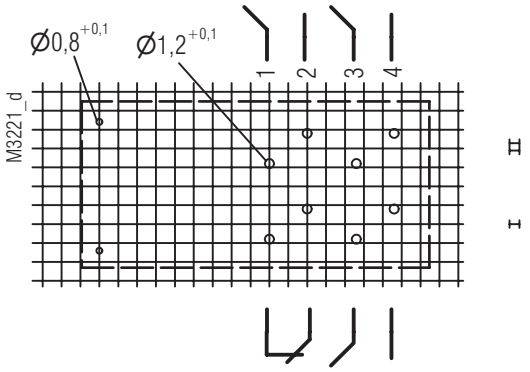
Dimensions, pin configuration, connection diagrams

OA 5621

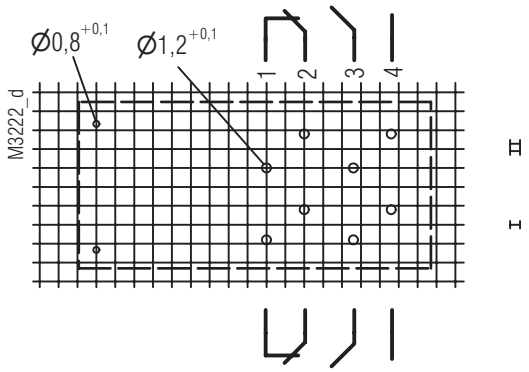
Pin Configuration W7



Drilling plan (solder side)



OA5621.48/____W7 3NO/1NC

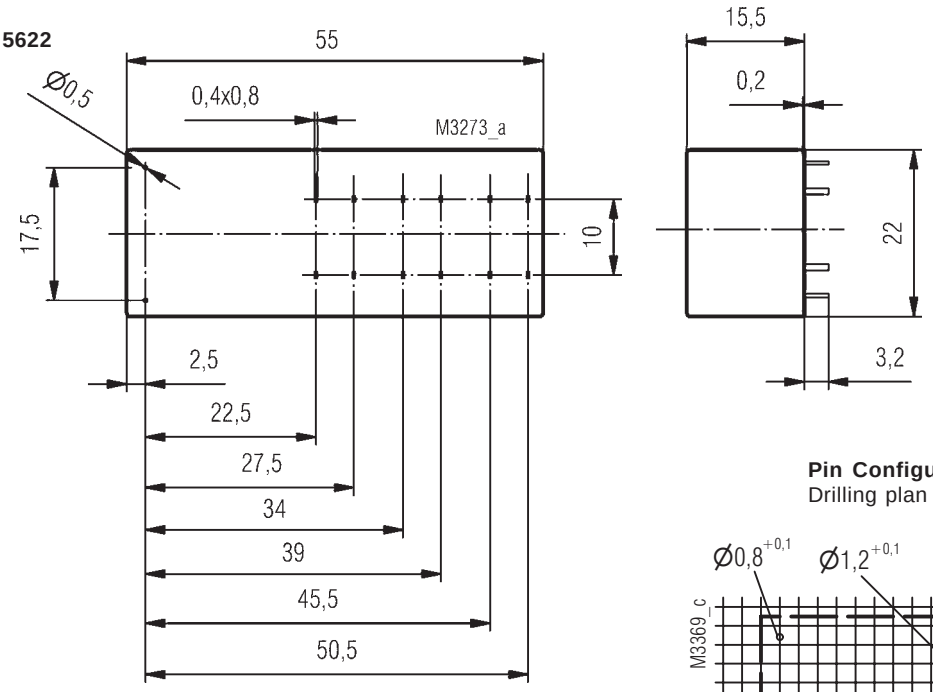


OA5621.52/____W7 2NO/2NC

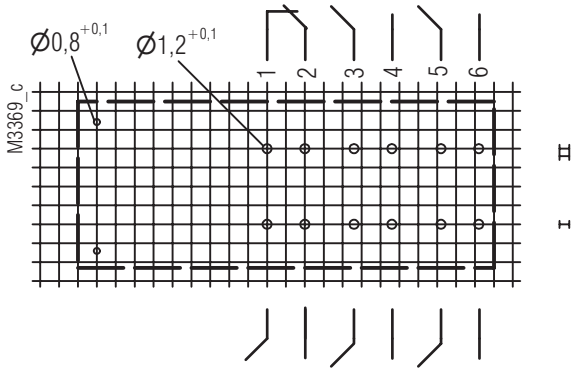
Connection for basic grid divensions 2,50 mm as well as 2,54 mm according to IEC/EN 60 097, IEC 60 326

Dimensions, pin configuration, connection diagrams

OA 5622

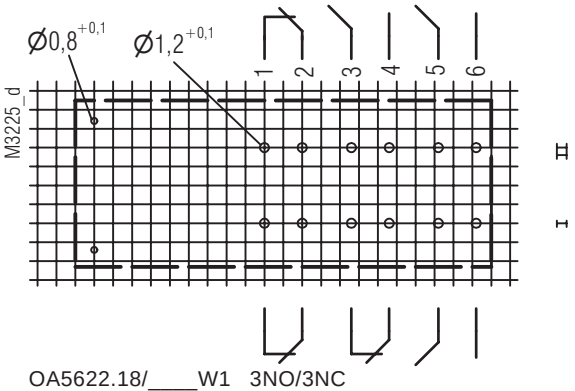


Pin Configuration W5
Drilling plan (solder side)

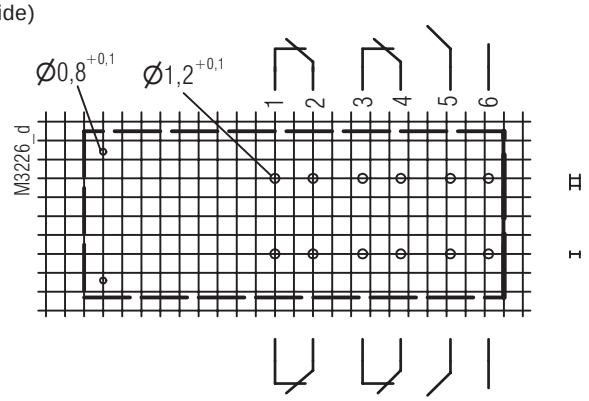


OA5622.60/____W5 1NO/5NC

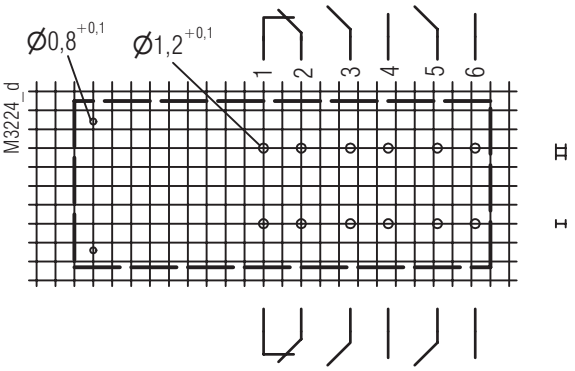
Pin Configuration W1
Drilling plan (solder side)



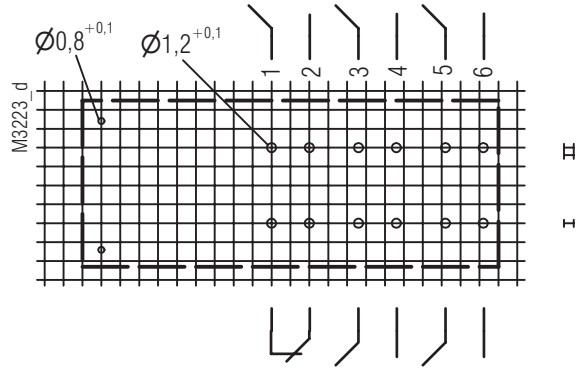
OA5622.18/____W1 3NO/3NC



OA5622.50/____W1 2NO/4NC



OA5622.54/____W1 4NO/2NC



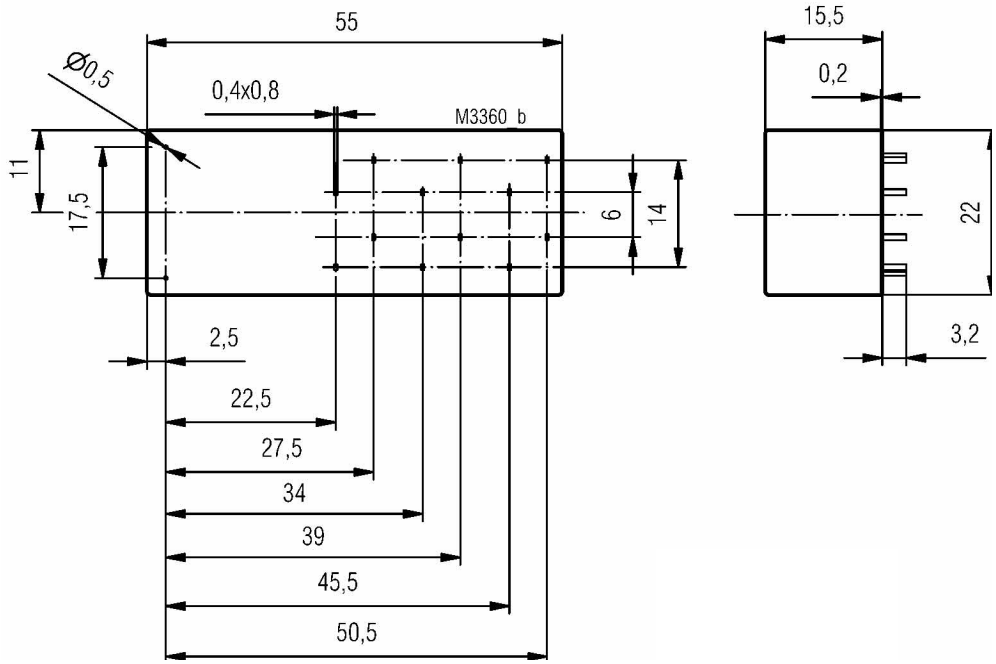
OA5622.60/____W1 5NO/1NC

Connection for basic grid divensions 2,50 mm as well as 2,54 mm according to IEC/EN 60 097, IEC 60 326

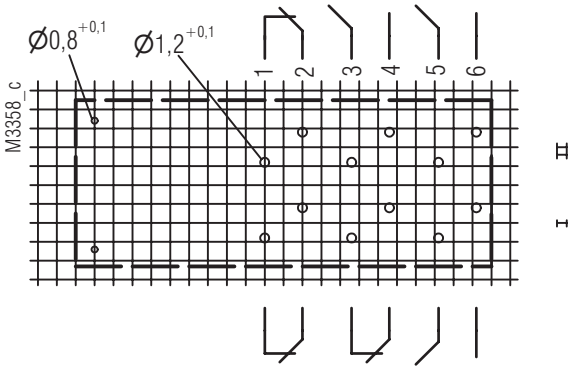
Dimensions, pin configuration, connection diagrams

OA 5622

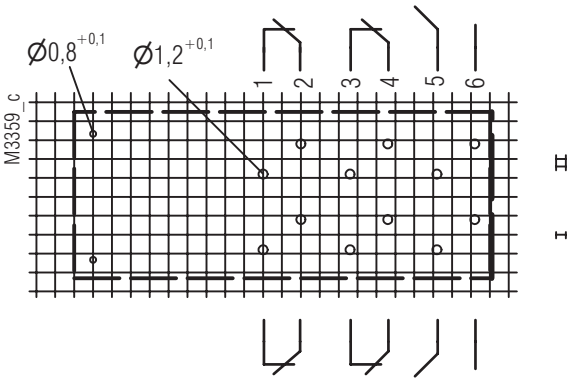
Pin Configuration W7



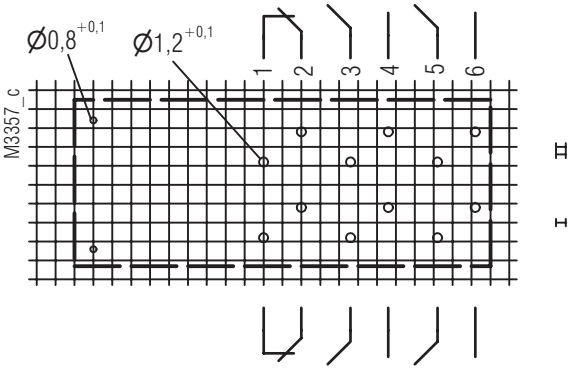
Drilling plan (solder side)



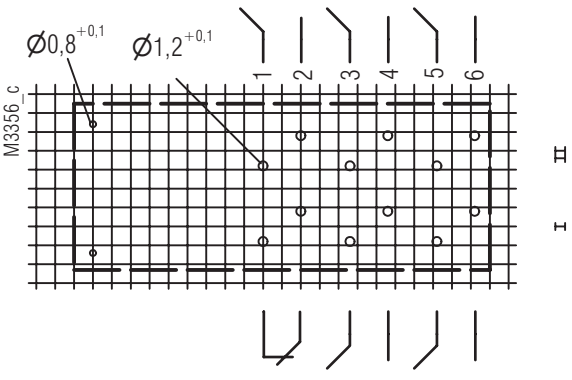
OA5622.18/____W7 3NO/3NC



OA5622.50/____W7 2NO/4NC



OA5622.54/____W7 4NO/2NC

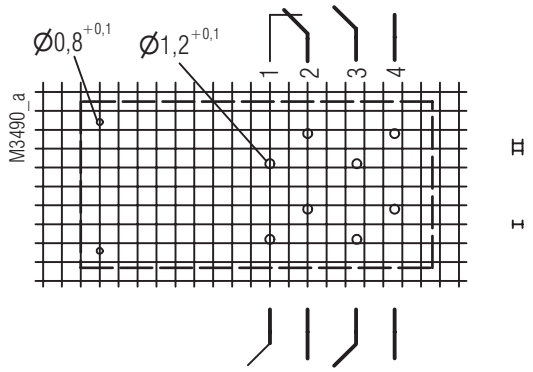


OA5622.60/____W7 5NO/1NC

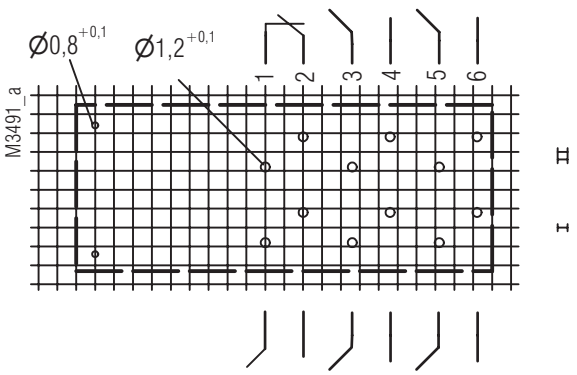
Connection for basic grid divensions 2,50 mm as well as 2,54 mm according to IEC/EN 60 097, IEC 60 326

Dimensions, pin configuration, connection diagrams

Pin Configuration W8
Drilling plan (solder side)



OA5621.48/____W8 1NC/3NO



OA5622.60/____W8 1NC/5NO

Connection for basic grid divensions 2,50 mm as well as 2,54 mm according to IEC/EN 60 097, IEC 60 326