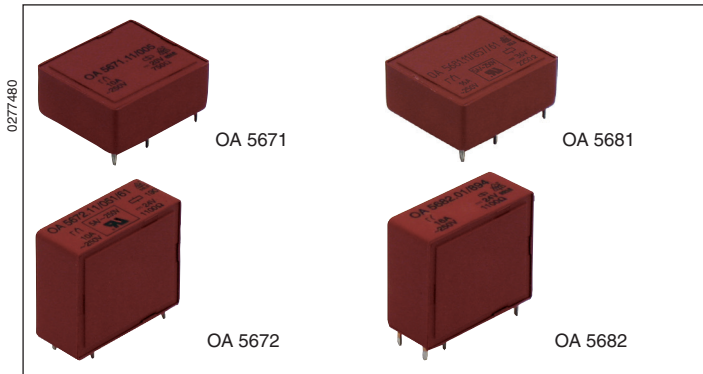


Printed Circuit Board Relays

monostable

OA 5671, OA 5681, OA 5672, OA 5682



- According to DIN EN 61810-1, DIN EN 60664-1
- Clearance and creepage distances: contact-coil ≥ 8 mm
- Compact size, small height (at horizontal model)
- OA 5671 / 5681 horizontal mounting
- OA 5672 / 5682 vertical mounting
- OA 5671 and OA 5672 for continuous currents to 10 A or with contact with $5 \mu\text{m Au}$
- OA 5681 and OA 5682 for continuous currents to 16 A
- OA 5672 as option with 7 mm or 10 mm pin distance
- For continuous operating temperature to 110°C
- Voltage range $0.7 U_N \dots 2.2 U_N$
- Solder line proof

Applications

- Control technique
- Interface

Approvals and Markings



Technical Data

Relay type		OA 5671, OA 5672	OA 5681, OA 5682
1.0 Spule			
1.1 Nominal voltage	DC V	6, 12, 15, 20, 24, 48, 60, 110 (others on request)	
1.2 Nominal consumption	W	0.53	
1.11 Voltage range	U_N	0.7 ... 2.2	
1.13 Holding power (at $0.5 \times U_N$)	W	0.14	
2.0 Contacts			
2.1 Contact arrangement ¹⁾		1 changeover contact	
2.2 Contact material		AgSnO ₂ + 0.2 $\mu\text{m Au}$	
2.3 Rated insulated voltage	AC V	250	
Switching voltage min./max.	DC V, AC V	12 / 250, 400 ($\approx 100\text{mV} / \approx 60\text{V}$) ⁴⁾	12 / 250, 400
2.4 Limiting continuous current I_{th}	A	10 ⁵⁾	16 ⁵⁾
Switching current min./max.	A	10 mA ⁷⁾ / 16 (1 mA / 0.3 A) ⁴⁾	0.3 / 25 ²⁾
2.5 Switching power min./max.	VA	4 / 2 500 (1 mVA / 7 VA) ⁴⁾	4 / 4 000
Switching power min./max.	W	35 ... 300 ⁶⁾ (1mW / 7 W) ⁴⁾	35 ... 500 ⁶⁾
2.6 Switching capacity to IEC/EN 60947-5-1			
AC 15	AC V/A	NC: 230 / 5; NO: 230 / 10	
DC 13	DC V/A	NC: 24 / 1; NO: 24 / 1	
to UL 508		B150	
2.7 Electrical life ³⁾	switching cycles	(50 x 10 ⁶) ⁴⁾	
at AC 250 V, I_{th} (OA/OW)	switching cycles	approx. 0.3 x 10 ⁶ / approx. 0.15 x 10 ⁶	approx. 0.2 x 10 ⁶ / approx. 0.1 x 10 ⁶
2.8 Switching frequency max.	switching cycles / s	20	
2.9 Response time / Release time	ms	typically 7 / typically 3	
2.10 Contact force NO / NC	cN	25 / 12	
3.0 Other			
3.1 Mechanical life	switching cycles	approx. 30 x 10 ⁶	
3.2 Temperature range	$^\circ\text{C}$	- 40 ... + 110	
3.3 Degree of protection, housing		Solder line proof RT II	
3.5 Vibration resistance		≤ 10 g, to 100 Hz IEC/EN 60068-2-6	
3.6 Climate resistance		40 / 110 / 04 (climate category); A/B/D IEC/EN 60068-1	

¹⁾ NO and NC on request

²⁾ max. 4 s or 10 % ED

³⁾ at 0,5 s On, 3,5 s Off

⁴⁾ Values for contact with $5 \mu\text{m Au}$

⁵⁾ see operating voltage limit curve

⁶⁾ see limit curve for arc free operation

⁷⁾ Typical values

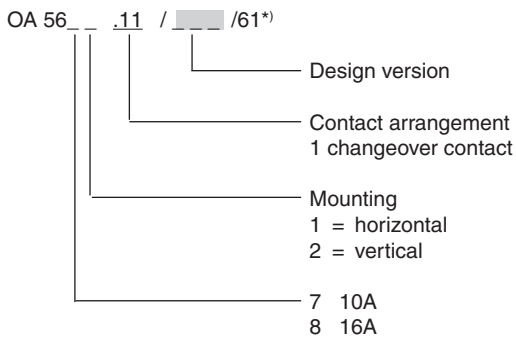
Technical Data

3.8	Insulation acc. to IEC 60664-1, EN 50178			
	Rated insulation voltage	AC V		250
	Pollution degree			3
	Overtoltage category			III
	Test voltage			
	contact-coil (1 min)	AC kV eff.		≥ 4
	contact-contact (1 min)	AC kV eff.		≥ 1.5
	Transient voltage			
	contact-coil (1.2 - 50 μs)	kV		≥ 6
	Clearance and creepage distances	mm		≥ 8
3.9	Weight	g	17	17
4.0 Packing				
4.1	in blister	piece	OA 5671: 20 OA 5672: 20	OA 5681: 20 OA 5682: 20
4.2	in case package	piece	OA 5671: 200 or 100 OA 5672: 200 or 100	OA 5681: 200 or 100 OA 5682: 200 or 100
5.0 Solder method				
5.1	Solder method /-temperature /-duration	°C / s		Wave soldering / 260 / 5

Design Versions

U _N (DC V)	Voltage range (DC V)	Resistance at 20°C Ω	AgSnO ₂			AgSnO ₂		AgNi 10 + 5 μm Au		
			OA 5671	OA 5672 7 mm	OA 5672 10 mm	OA 5681	OA 5682	OA 5671	OA 5672 7 mm	OA 5672 10 mm
6	4,2 ... 13,2	70	001	046	821	851	881	031	076	061
12	8,4 ... 26,4	280	003	048	822	852	882	033	078	063
15	10,5 ... 33,0	420	004	049	823	853	883	034	079	064
20	14,0 ... 44,0	750	005	050	824	854	884	035	080	065
24	16,8 ... 52,8	1100	006	051	825	855	885	036	081	066
48	33,6 ... 105,6	4500	010	055	829	859	889	040	085	070
60	42,0 ... 132,0	7000	011	056	830	860	890	041	086	071
110	77,0 ... 242,0	23000	012	057	831	861	891	042	087	072

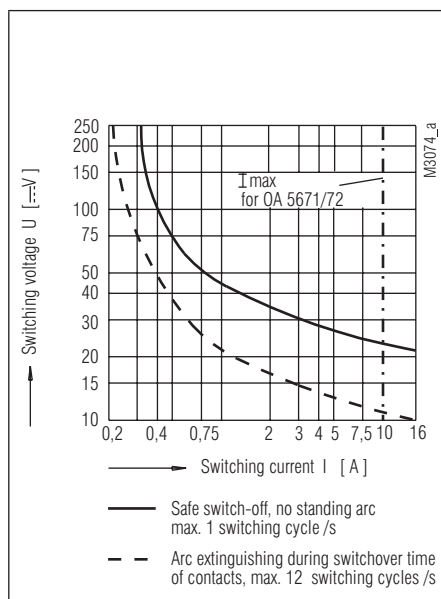
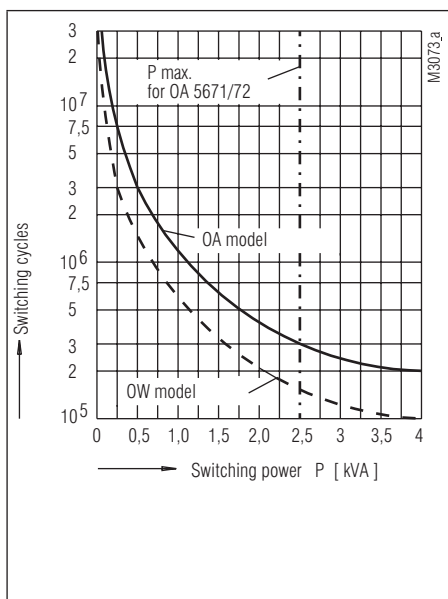
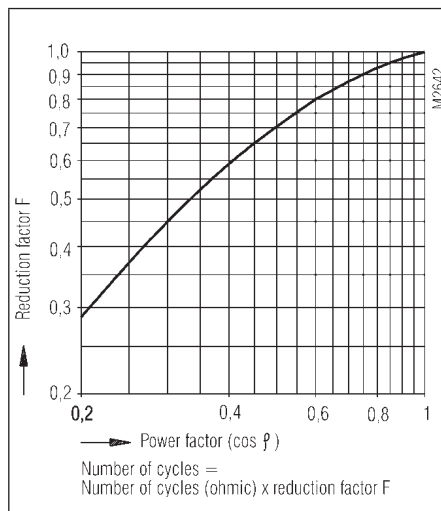
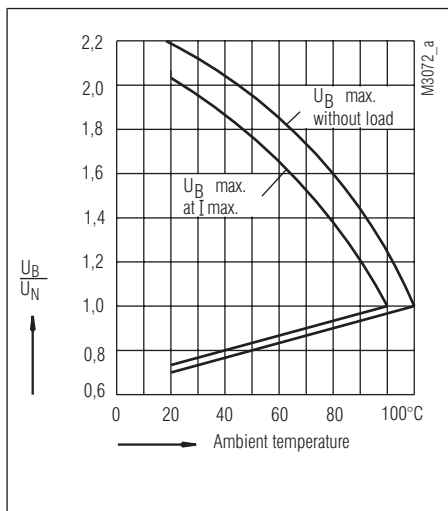
Ordering example



Note

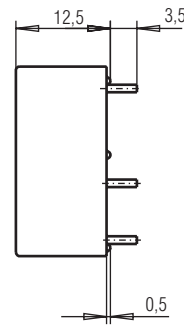
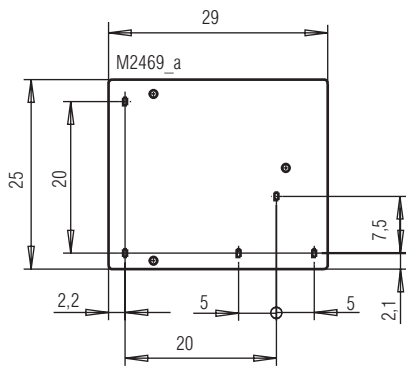
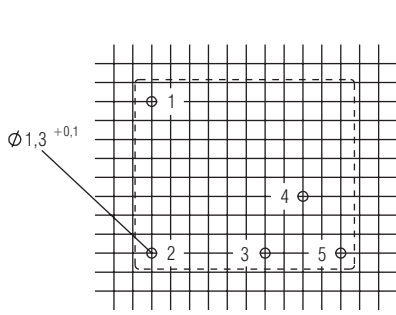
For the use and processing of our PCB relays, please refer to the **application and processing instructions** at www.dold.com

*) /61 cURus approval

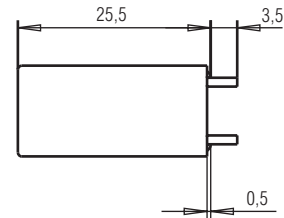
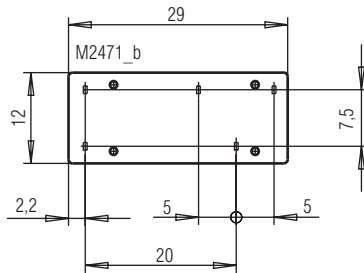
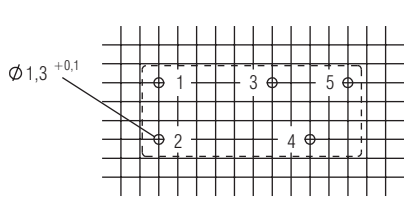


Drilling plan (solder side)

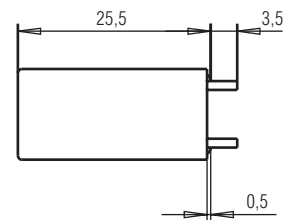
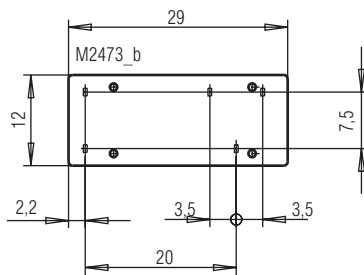
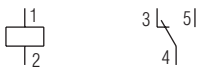
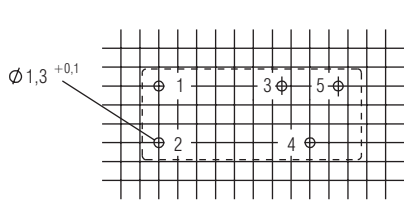
OA 5671
10 mm pin distance



OA 5672
10 mm pin distance



OA 5672
7 mm pin distance

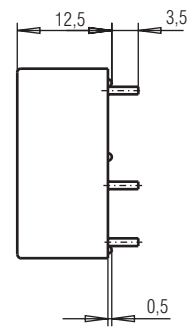
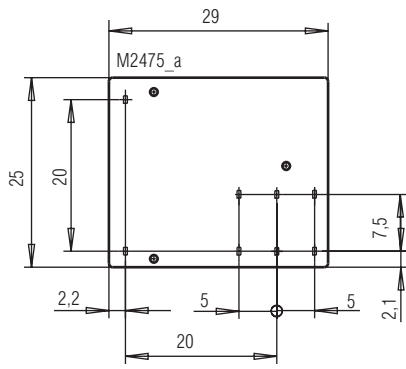
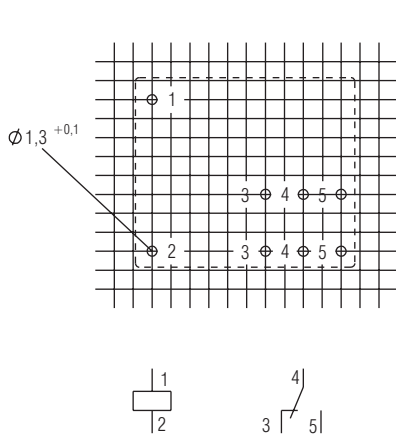


OA 5672

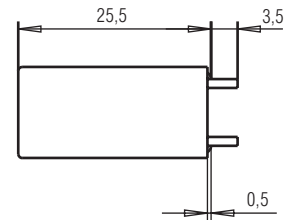
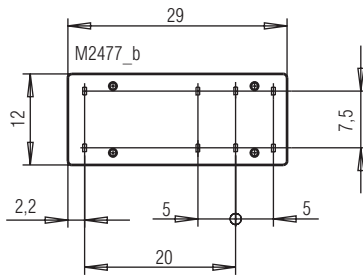
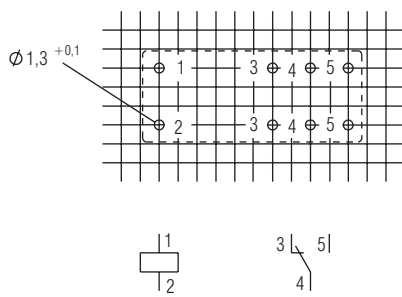
Connection for basic grid dimensions 2.5 mm as well as 2.54 mm according to IEC/EN 60097 and IEC 60326 average

Drilling plan (solder side)

OA 5681
10 mm pin distance

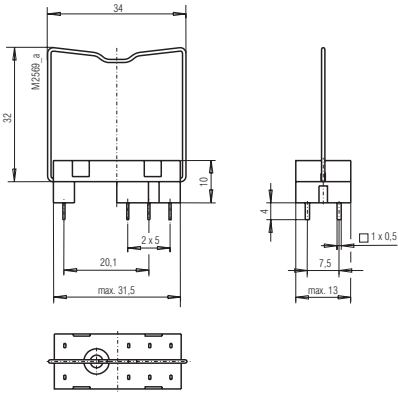


OA 5682
10 mm pin distance



Connection for basic grid dimensions 2.5 mm as well as 2.54 mm according to IEC/EN 60097 and IEC 60326 average

Relay socket incl. fixing clip



Relay socket ET 1415.021 Fixing clip ET 1415.025

Article number: 0034769

Fixing clip (wire):
Article number: 0034770

Fixing clip (plastic):
Article number: 0047726

Packing: 100 Stück

Function modules

ET1415.913: DC 24 V, with free-wheel diode and green LED
Article number: 0056828

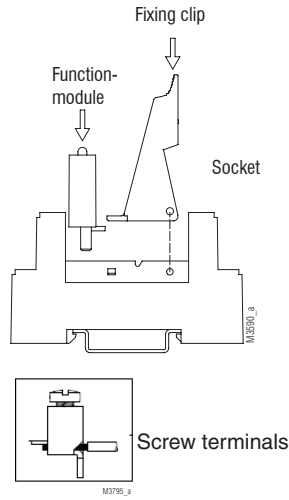
ET1415.911: DC 24 V, with free-wheel diode and red LED
Article number: 0055909

ET1415.912: AC/DC 24 V, with varistor and green LED
Article number: 0055910

ET1415.924: DC 60 V, with free-wheel diode and red LED
Article number: 0062552

Packing: 20 pieces

Socet ET 1415.041 incl. fixing clip - Screw terminals -



Article number: 0055571

Temperature range: - 25 ... + 70 °C

Clearance and creepage distance

Rated impulse voltage /
degree of protection

Input / output: 6 kV / 2 IEC 60664-1

Output / output: 4 kV / 2 IEC 60664-1

Overvoltage category: III

Degree of protection: IP 20 IEC/EN 60529

Wire connection

Solid / stranded: 0.5 - 2.5 mm² (20-14 AWG)

Sleeved end: 0.14 - 2.5 mm² (26-14 AWG)

Stripping length 7 mm

Wire fixing: Screw terminals

Mounting: DIN-rail IEC/EN 60715

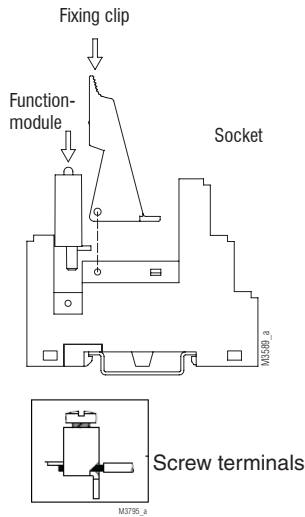
Weight: Approx. 38.5 g

Packing: 10 pieces

Dimensions

Width x height x depth: 15.8 x 75 x 69.0 mm

Socet ET 1415.044 incl. fixing clip - Screw terminals -



- Incl. safe separation between coil and contacts according to DIN EN 60947-1, DIN EN 61140

Article number: 0059274

Temperature range: - 25 ... + 70 °C

Clearance and creepage distance

Rated impulse voltage / degree of protection

Input / output: 6 kV / 2 IEC 60664-1

Output / output: 4 kV / 2 IEC 60664-1

Overvoltage category: III

Degree of protection: IP 20 IEC/EN 60529

Wire connection

Solid / stranded: 0.5 - 2.5 mm² (20-14 AWG)

Sleeved end: 0.14 - 2.5 mm² (26-14 AWG)

Stripping length 7 mm

Wire fixing: Screw terminals

Mounting: DIN-rail IEC/EN 60715

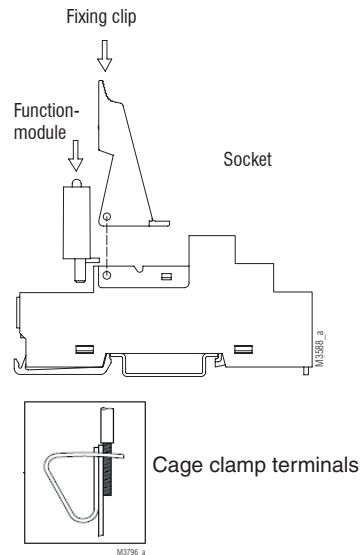
Weight: Approx. 43.5 g

Packing: 10 pieces

Dimensions

Width x height x depth: 15.8 x 75 x 75.0 mm

Socet ET 1415.047 incl. fixing clip - Cage clamp terminals -



Article number: 0059270

Temperature range: - 25 ... + 70 °C

Clearance and creepage distance

Rated impulse voltage / degree of protection

Input / output: 6 kV / 2 IEC 60664-1

Output / output: 4 kV / 2 IEC 60664-1

Overvoltage category: III

Degree of protection: IP 20 IEC/EN 60529

Wire connection

2 x Solid / stranded: 0,5 - 1,5 mm² (20-16 AWG)

2 x Sleeved end: 0,14 - 1,5 mm² (26-16 AWG)

Stripping length 11 mm

Wire fixing: Cage clamp terminals

Mounting: DIN-rail IEC/EN 60715

Weight: Approx. 42.0 g

Packing: 10 pieces

Dimensions

Width x height x depth: 15.8 x 97 x 75.5 mm

