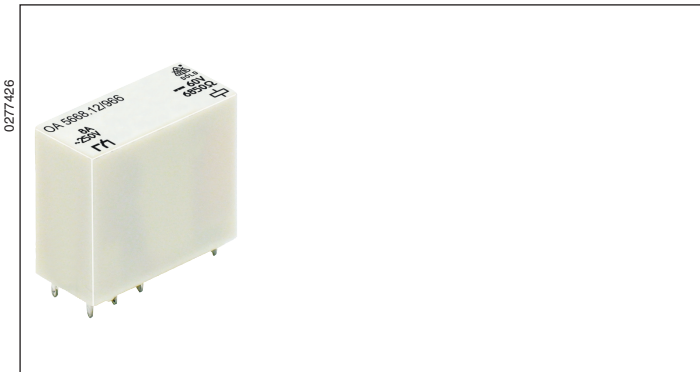


PCB relays

Printed circuit board relay
 Monostable
 OA / OW 5668

Translation
 of the original instructions



- According to EN 61810-1
- Clearance and creepage distances:
 Contact - coil ≥ 8 mm
- High dielectric strength ≥ 4 kV
- High mechanical service life
- High temperature range - 40 ... + 75 °C
- As option wash proof RT III

Applications

- Control technique
- Interface

Technical Data

Relay type	OA/OW 5668
1.0 Relay coil	
1.1 Nominal voltage	DC 5, 6, 12, 20, 24, 48, 60, 110 V
1.2 Nominal consumption	Approx. 0.5 W
1.11 Voltage range	0.7 ... 2.0 U_N
1.3 Holding power (at 0.5 x U_N)	Approx. 0.13 W
2.0 Contacts	
2.1 Contact arrangement	2 changeover contacts, optionally 2 NO or 2 NC
2.2 Contact material	AgSnO ₂ + 0.2 μ m Au on request; AgNi + 0.2 μ m Au, AgNi + 5 μ m Au
2.3 Rated insulation voltage	AC 250 V
Switching voltage min./max.	AC/DC 10 V / DC 250 V, AC 400 V (AC/DC 100 mV / 60 V) ⁴⁾
2.4 Limiting continuous current I_{th}	2 x 5 A (s. see operating voltage limit curve)
Switching current min./max.	10 mA ³⁾ 2 x 8 A together or 1 x 10 A (1mA / 0.3 A) ⁴⁾
2.5 Switching power min./max.	2 x 3 VA / 2000 VA together or 1 x 2500 VA (1mVA / 7 VA) ⁴⁾
Switching power min./max.	2 x 30 W / 160 W together or 1 x 200 W (1mW / 7 W) ^{2) 4)}
2.6 Switching capacity to EN 60947-5-1	
AC 15	NC: AC 230 V / 1 A NO: AC 230 V / 2 A
DC 13	NC: DC 24 V / 1 A NO: DC 24 V / 1 A
2.7 Electrical life	At 1 s On, 1 s Off (see contact service life)
at AC 230 V, 6 A cos $\varphi = 1$	1.5 x 10 ⁵ switching cycles
2.8 Switching frequency max.	20 switching cycles/s
2.9 Response time / Release time	Typically 12 ms / Typically 5 ms
2.10 Contact force	≥ 10 cN / ≥ 8 cN
3.0 Other	
3.1 Mechanical life	≥ 50 x 10 ⁶ switching cycles
3.2 Temperature range	- 40 ... + 75 °C mounted without distance ($I_{th} = 2$ x 5 A)
3.3 Degree of protection	Solder line proof RT II as option wash proof RT III
3.5 Vibration resistance	10 ... 55 Hz; 0,35 mm Amplitude; max 5 g EN 60068-2-6
3.6 Climate resistance	40 / 075 / 04 (climate category); A/B/D EN 60068-1

¹⁾ I on / I off ²⁾ See limit curve for arc-free operation ³⁾ Typical values ⁴⁾ Values for AgNi -Contacts + 5 μ m Au

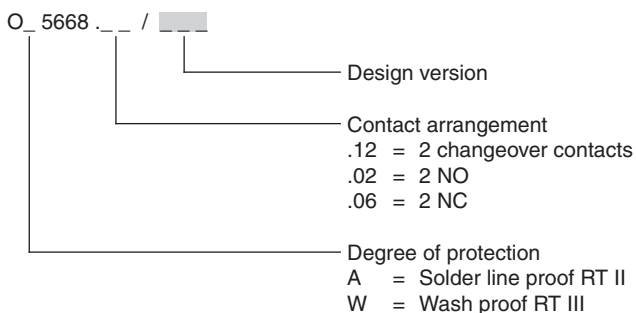
Technical Data

3.8	Insulation acc. to IEC 60664-1, EN 50178	
	Rated insulation voltage	AC 250 V
	Pollution degree	2
	Overvoltage category	III
	Test voltage	
	Contact-coil (1 min)	≥ AC 4 kV eff.
	Contact-contact (1 min)	≥ AC 2.5 kV eff.
	Transient voltage	
	Contact-coil (1.2 - 50 μs)	≥ 6 kV
	Clearance and creepage distances	
	Contact-coil	≥ 8 mm
3.9	Weight	35 g
4.0 Packing		
4.1	On cardboard in slipcase	56 pieces
4.2	In case package	280 pieces
5.0 Solder method		
5.1	Solder method /-temperature /-duration	Wave soldering / 260 °C / 5 s

Design versions

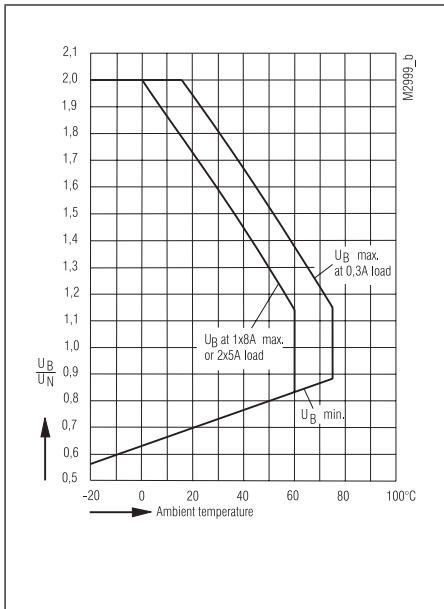
U _N (DC V)	Voltage range (DC V)	R _{Coil} Ω ± 10%	Design version OA / OW	
			.12	.02
5	3.5 ... 10.0	50	941	571
6	4.2 ... 12.0	70	942	572
12	8.4 ... 24.0	270	943	573
20	14.0 ... 40.0	820	949	578
24	16.8 ... 48.0	1100	944	574
48	33.6 ... 96.0	4400	945	575
60	42.0 ... 120.0	6850	946	576
110	77.0 ... 220.0	20000	947	577

Ordering Example

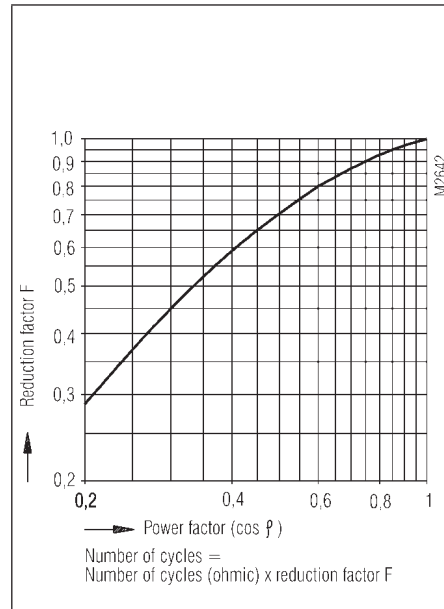


Notes

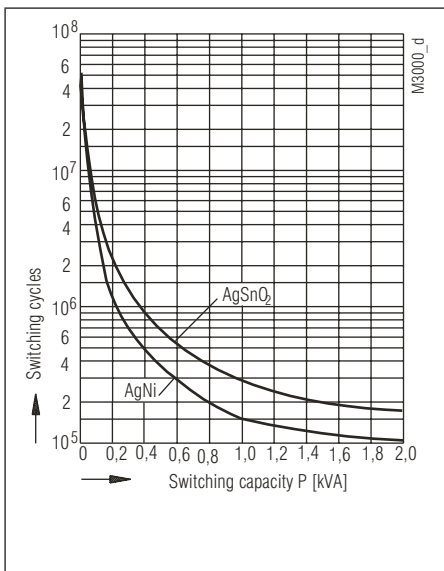
For the use and processing of our PCB relays, please refer to the **application and processing instructions** at www.dold.com



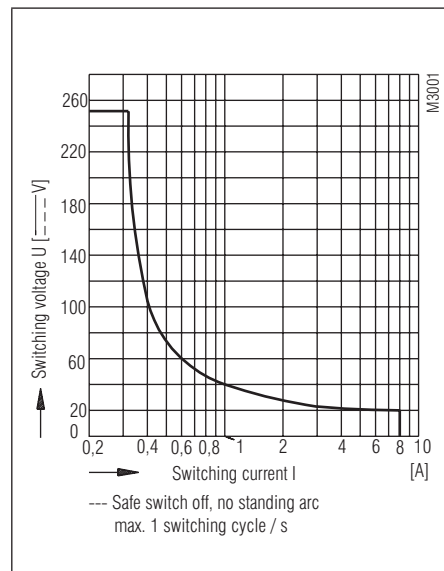
Operating voltage limit curve



Reduction factor for inductive loads

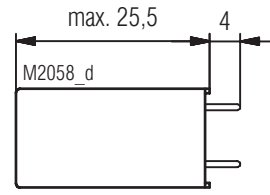
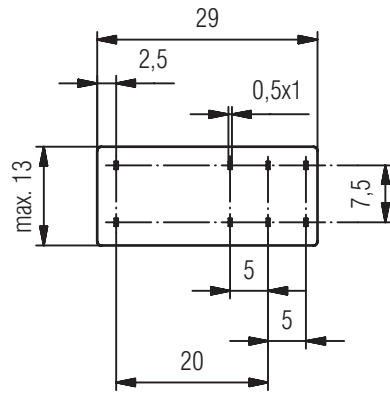
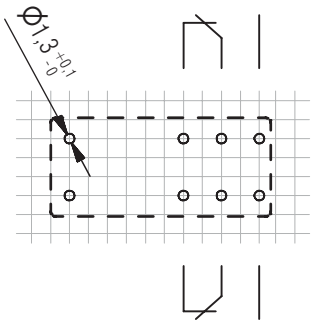


Contact service life (at $t_u = 20\text{ }^\circ\text{C}$)

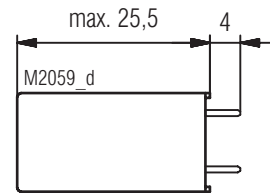
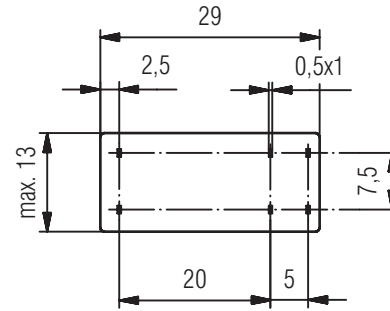
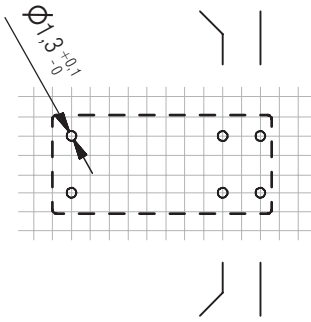


Arc limit curve (at $t_u = 20\text{ }^\circ\text{C}$)

Drilling plan (solder side)



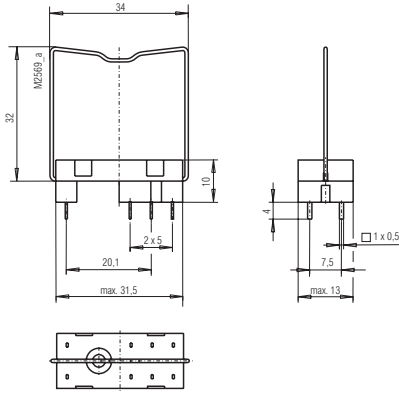
OA5668.12
OW5668.12



OA5668.02
OW5668.02

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

Article number: 0034769

Fixing clip (wire) ET 1415.025

Article number: 0034770

Fixing clip (plastic) ET 1415.026

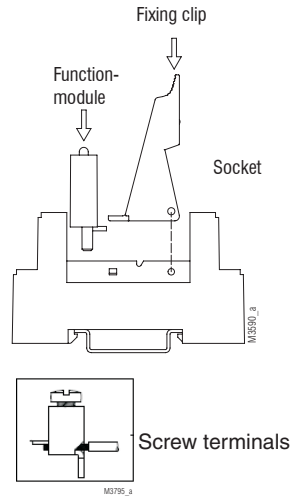
Article number: 0047726

Packing: 100 pieces

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

Socket ET 1415.041 incl. Fixing Clip - Screw Terminals -



Article number: 0055571

Temperature range: - 25 ... + 85 °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 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

Fixing torque: Max. 0.8 Nm

Mounting: DIN-rail EN 60715

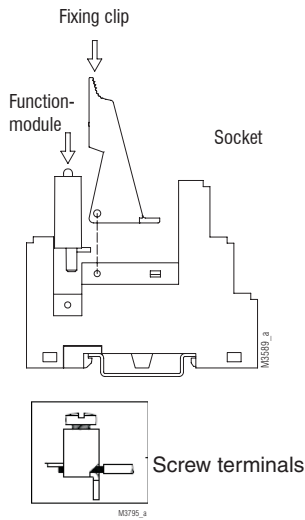
Weight: Approx. 38.5 g

Packing: 10 pieces

Dimensions

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

Socket ET 1415.044 incl. Fixing Clip - Screw Terminals -



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

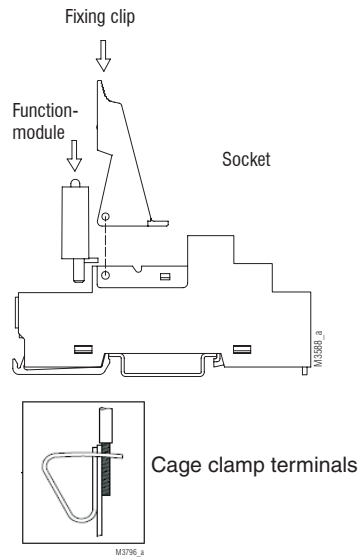
Article number: 0059274

Temperature range: - 25 ... + 85 °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 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
Fixing torque: Max. 0.8 Nm
Mounting: DIN-rail EN 60715
Weight: Approx. 43.5 g
Packing: 10 pieces

Dimensions

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

Socket ET 1415.047 incl. Fixing Clip - Cage Clamp Terminals -



Article number: 0059270

Temperature range: - 25 ... + 85 °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 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 EN 60715
Weight: Approx. 42.0 g
Packing: 10 pieces

Dimensions

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

