

Safety relay

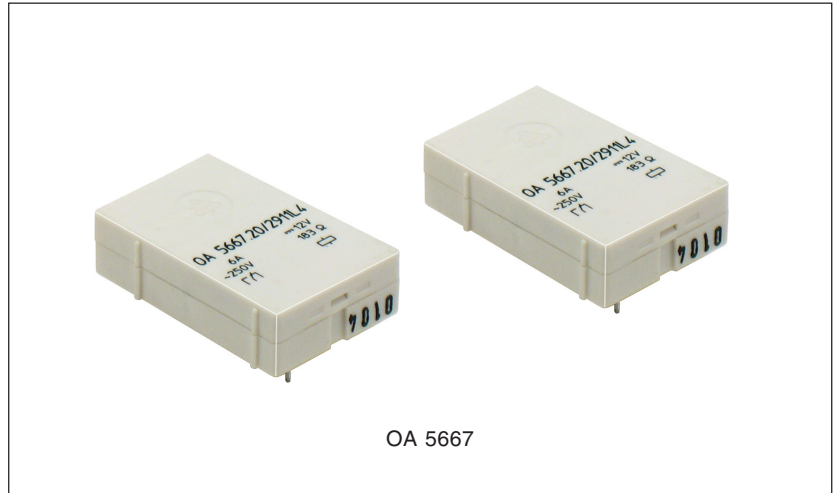
OA 5667



- acc. to DIN EN 50 205, DIN EN 61 810-1, DIN EN 60 664-1
- with positively driven contacts
- Clearance and creepage distances contact-coil ≥ 8 mm
- low rated power consumption
- high mechanical service life
- compact size, small height
- Approvals: **TÜV** **c** **UL** **us**
- version OA 5667.16 with double and reinforced insulation according to DIN EN 50 178

Applications:

ZH1/457 press controls
Switchgear for safety applications



OA 5667

Technical data

Relay type		OA 5667
1. 0 Relay coil		
1. 1 Nominal voltage	DC V	6, 12, 24, 48, 60, 110
1. 2 Nominal consumption	W	0,75
2. 0 Contacts		
2. 1 Contact arrangement		2 changeover contacts / 1 NO, 1 NC
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	2 x 6 (see operating voltage limit curve)
Switching current min./max.	A	10 mA ³⁾ / 6 (1 mA / 0,3 A) ¹⁾
2. 5 Switching power min./max.	VA	3 / 1 500 (1 mVA / 7 VA) ¹⁾
Switching power min./max.	W	3 / 200 (1 mW / 7 W) ¹⁾ (s. limit curve for arc-free operation)
2. 6 Switching capacity		
to IEC/EN 60 947-5-1 AC 15	AC V/A	NC: 230 / 2 NO: 230 / 3
DC 13	DC V/A	NC: 24 / 2 NO: 24 / 4
to UL 508		R300
2. 7 Electrical life		at 1 s On, 1 s Off (see contacts service life)
to AC 230 V 6 A cos φ = 1	switching cycles	> 10 ⁵ AgNi 10 > 1,25 x 10 ⁵ AgSNO ₂
2. 8 Switching frequency max.		10 / s
2. 9 Response time / Release time	ms	typically 10 / typically 6
2.10 Contact force NO / NC	cN	≥ 20 / ≥ 8
2.14 Contact gap	mm	> 0,5 ²⁾
3. 0 Other		
3. 1 Mechanical life	switching cycles	≥ 10 ⁷
3. 2 Temperature range	°C	- 40 ... + 75
3. 3 Degree of protection, housing		IP40 IEC/EN 60 529
3. 4 Housing		Thermoplast
3. 5 Vibration resistance		10 ... 100 Hz; 0,35 mm amplitude; 4 g max. IEC/EN 60 068-2-6
3. 6 Climate resistance		25 / 070 / 04 (climate category); A/B/D IEC/EN 60 068-2-6
¹⁾ Values for AgNi 10-Kontakte + 5 µm Au ²⁾ over entire service life, even when under fault and at 1,3 x U _N ³⁾ Typical values		

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.

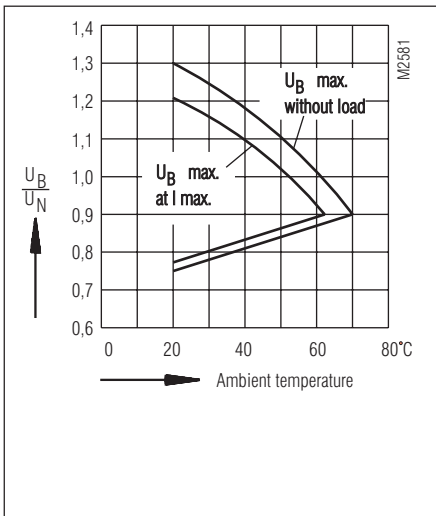
Technical data

3.8	Insulation according to IEC 60 664-1, EN 50 178		OA 5667.12	OA 5667.16
	Rated insulation voltage	AC V	250	250
	Contamination level		3	3
	Overvoltage category		III	III
	Test voltage contact-coil (1 min)	AC kV eff.	≥ 4	≥ 4
	contact-contact (1 min)	AC kV eff.	≥ 2,5	≥ 4
	Transient volt. contact-coil (1,2 - 50 μs)	kV	≥ 6	≥ 6
	Clearance and creepage distances as per IEC/EN 60 730, IEC/EN 60 335			
	contact-coil	mm	≥ 8	≥ 8
	contact-contact	mm	≥ 4,5	≥ 8
3.9	Weight	g	16	16

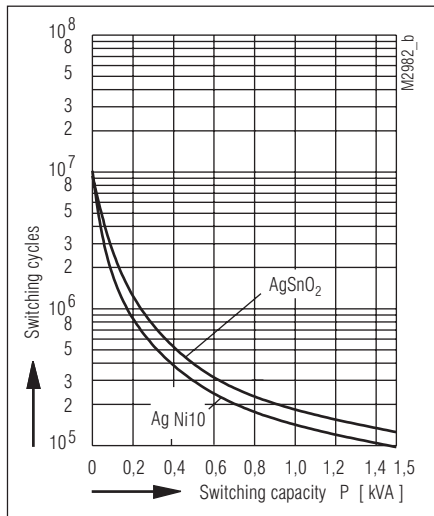
Standard variants

U _N DC V	Voltage range DC V	Resistance at 20°C Ω	Design version					
			AgSnO ₂ -contact + 0,2 μm Au		AgNi10-contacts + 0,2 μm Au		AgNi10-contacts + 5 μm Au	
			OA 5667.12	OA 5667.16	OA 5667.12	OA 5667.16	OA 5667.12	OA 5667.16
			2 W	1 NO / 1 NC	2 W	1 NO / 1 NC	2 W	1 NO / 1 NC
6	4,5 ... 7,8	48	2801	2831	2811	2841	2821	2851
12	9,0 ... 15,6	183	2802	2832	2812	2842	2822	2852
24	18,0 ... 31,2	750	2803	2833	2813	2843	2823	2853
48	36,0 ... 62,4	3 200	2804	2834	2814	2844	2824	2854
60	45,0 ... 78,0	4 700	2805	2835	2815	2845	2825	2855
110	82,5 ... 143,5	15 300	2806	2836	2816	2846	2826	2856

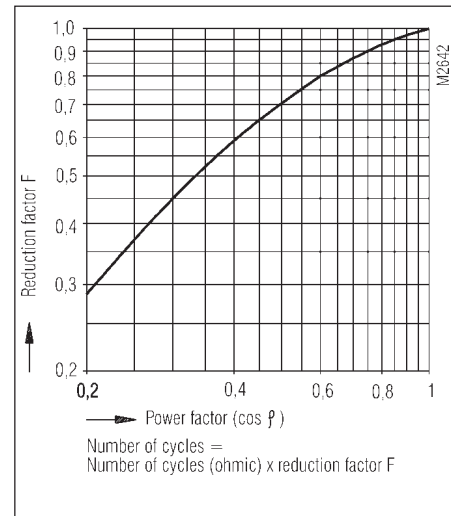
Characteristics



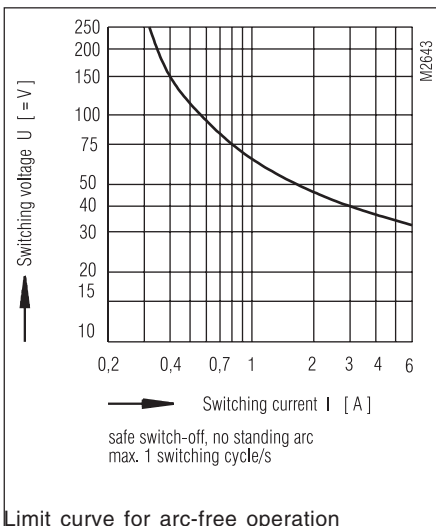
Operating voltage limit curve



Contact service life

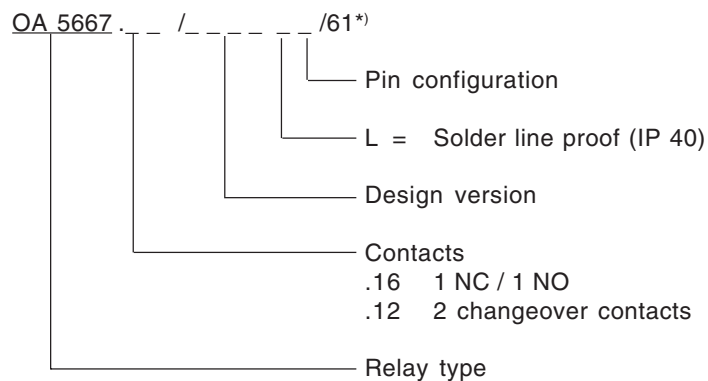


Reduction factor



Limit curve for arc-free operation

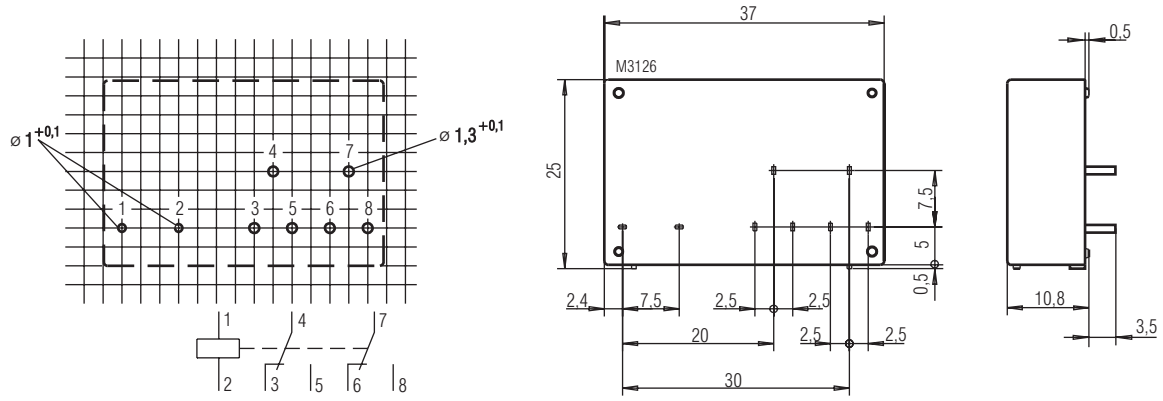
Ordering example



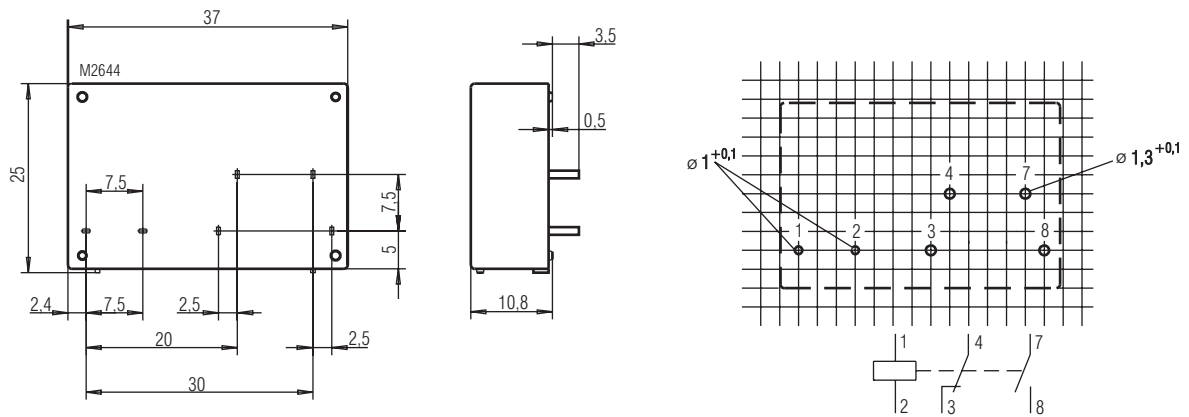
*) /61 cURus approval

Dimensions, pin configuration, connection diagrams

Drilling plan (solder side)



OA 5667.12
 OA 5667.20 without contact 6
 OA 5667.36 without contact 8



OA 5667.16

Connection for basic grid dimensions 2,5 mm as well as 2,54 mm according to IEC/EN 60 097 and IEC 60 326 average

