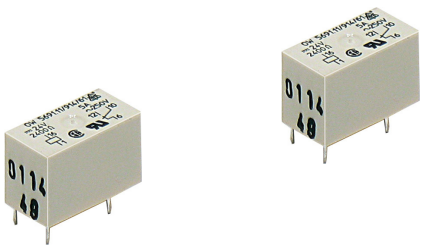
Power miniature relay, Remanence
dilais® OR 5691

PCB-relay with 1 NO or 1 changeover contact. The contacts of the remanence relays stay in position after a current pulse until a pulse in reverse direction resets the contacts.

- High switching power AC 250 V / 5 A
- High dielectric strength 4 kV
- High thermal continuous current I_{th}= 5 A
- Clearance and creepage distances between coil and contacts as per EN 50 178
- Compact size V=2,47 cm³
- wash proof
- Approval:



OR 5691

Technical data

Relay type			OR 5691
1. 0	**Relay coil**		
1. 1	Nominal voltage	DC V	4,5; 6; 12; 20; 24; 48
1. 2	Nominal consumption	W	0,7 (1u)
1. 3	Test voltage coil/chassis	AC kV	≥ 2,5
1. 4	Pulse length	ms	see diagram operate pulse length
1. 5	Non operation voltage		≤ 0,40 x U_N
1. 6	Hold voltage		≤ 0,025 x U_N (oposite polarity of operating voltage)
1. 7	Release voltage		see diagram reset time
1. 8	Reset voltage		≤ 0,18 x U_N (oposite polarity of operating voltage)
1. 9	max. permitted coil temperature	°C	120°C
1.10	Coil data		see page 4
1.11	Voltage range		0,80 ... 1,3 x U_N
1.12	Temperature resistance	k / W	
2. 0	**Contacts**		
2. 1	Contact arrangement		1 NO, 1 changeover contact
2. 2	Contact material		AgNi 0,15 + 0,3 µm Au; $AgSnO_2$ + 0,3 µm Au
2. 3	Rated insulation voltage	AC V	250
	Switching voltage min./max.	V	AC/DC 10 / DC 120, AC 250 V
2. 4	Limiting continiuous current I_{th}	A	5
	Switching current min./max.	A	0,01[1] / 5
2. 5	Switching power min./max.	VA	0,1 / 1 250
	Switching power min./max.	W	0,1 / 120
2. 6	Switching capacity to IEC/EN 60 947-5-1 AC 15	AC V/A	NC: 230 / 1 NO: 230 / 3
2. 7	Electrical Life		at 1 s On, 1 s Off (see contacts service life)
	at AC 230 V 1 A cos φ = 1	switching cycles	5 x 10^5
	at AC 230 V 5 A cos φ = 1	switching cycles	1,5 x 10^5
2. 8	Switching frequency max.	switching cycles / s	20
2. 9	Pick-up / Drop-off time	ms	typically ≤ 8 / (see diagram reset time)
2.10	Contact force NO / NC	cN	8
2.12	Contact model		spring contact
2.13	Contact resistance	mΩ	≤ 30 (measuring current 10 mA, measuring voltage 2 V DC)
2.14	Contact gap	mm	0,3 ... 0,4

[1] Typical values

Technical data

2.15	Contact override	mm	≥ 0,3
2.16	Bouncing time		
	(at U_N) NC	ms	≤ 8 (typically 5,5) at $U_{AB} = 0,3 \times U_N$
	(at U_N) NO	ms	≤ 4,2 (typically 2,6) at $U_{AN} = U_N$
2.17	Impulse with stand voltage	kV	2; 1,2/50
2.18	Capacity		
	between open contacts	pF	≤ 2 (typically 1,5)
	between contact and coil	pF	≤ 9 (typically 7)
3. 0	**Other**		
3. 1	Mechanical life	switching cycles	≥ 10^8
3. 2	Temperature range	°C	- 40 ... + 65
3. 3	Degree of protection, housing		IP 67 / IP 00 IEC/EN 60 529 , wash proof as per Qc 2 IEC/EN 60 068-2-17
3. 4	Housing material		Thermoplast
3. 5	Vibration resistance		10 ... 55 Hz; 1,2 mm amplitude; 10 g max. IEC/EN 60 068-2-6
3. 6	Climate resistance		20 / 065 / 04 (climate category); A/B/D IEC/EN 60 068-1
3. 8	Insulation according to IEC 60 664-1		
	Rated insulation voltage	AC V	250
	Contamination level		3
	Overvoltage category		III
	Test voltage		
	contact-coil (1 min)	AC kV eff.	≥ 4
3. 9	Weight	g	approx. 5
3.10	Dimensions	mm	see dimensions
3.11	Clearance and creepage distances	mm	≥ 5,5; between coil and contacts (safe seperat. as per EN 50 178)
3.13	Mounting direction		free
3.14	Operating mode		100 % duty cycle
3.15	Sealing		epoxy resin

Design version

U_N DC	Resistance at 20°C Ω ± 10%	Design version AgNi 0,15 + 0,3 µm Au OR 5691.11/..	OR 5691.01/..
4,5	27	7521	7531
6	50	7522	7532
12	200	7523	7533
20	600	7524	7534
24	820	7525	7535
48	3 300	7526	7536

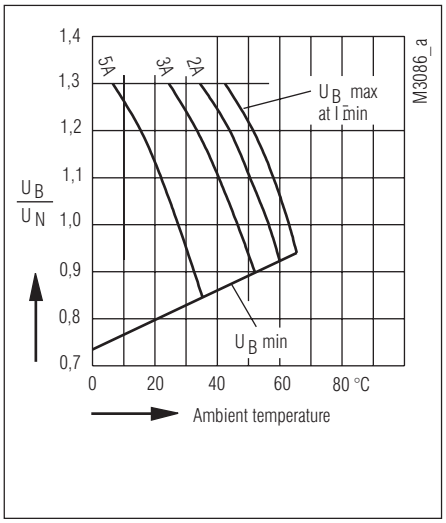
Ordering example

OR 5691 ._ _ / _ _ _ _ _ _ /61*)

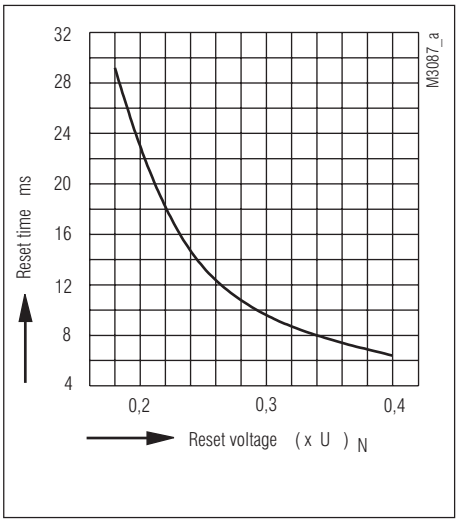
- Pin configuration
- W = Wash proof (IP 67)
- Design version
- Contact arrangement
  .01 = 1 NO
  .11 = 1 changeover contact
- Relay type

*) /61 cURus approval

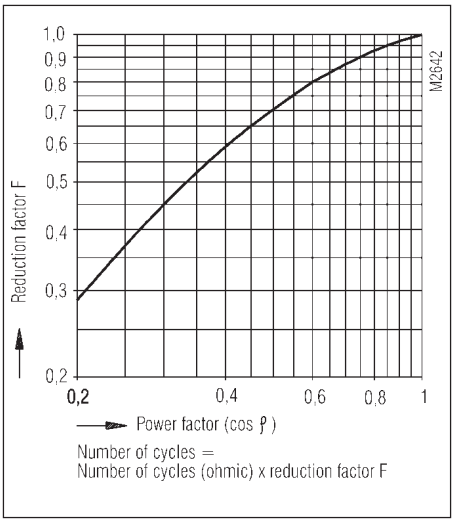
Characteristics



Operating voltage limit curve

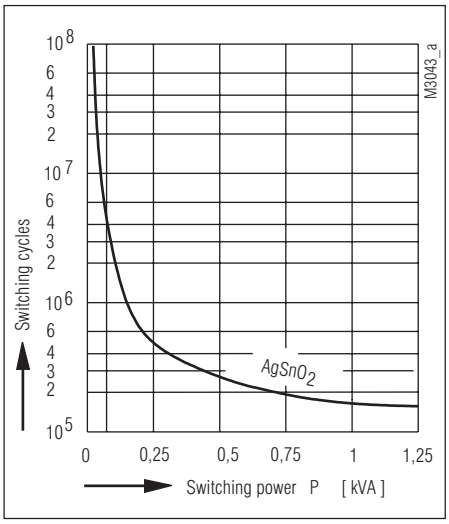


Reset time

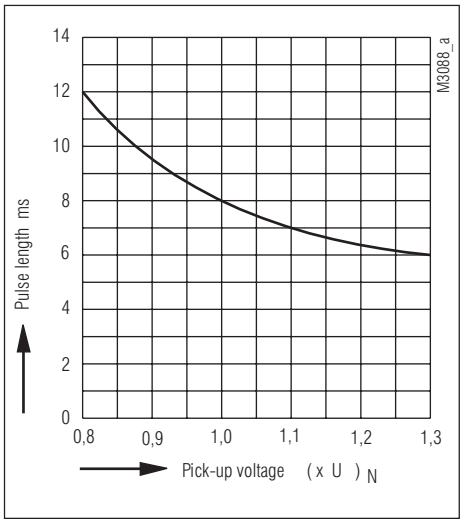


Reduction factor

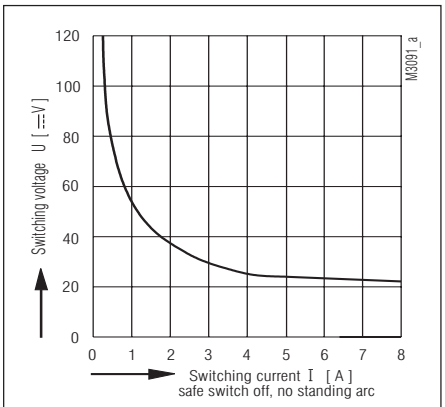
Characteristics



Contact service life

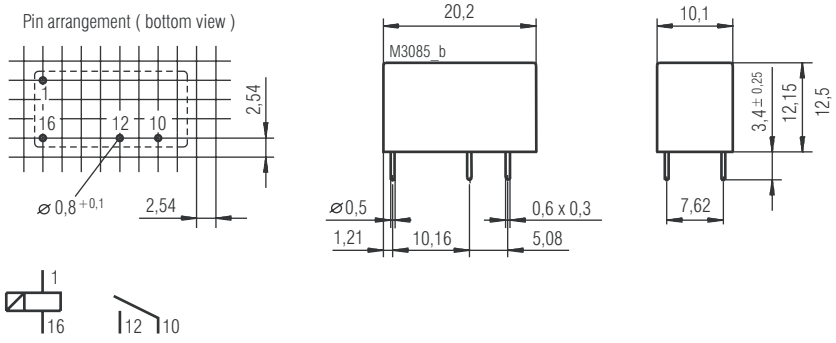


Pick-up/Impulse length

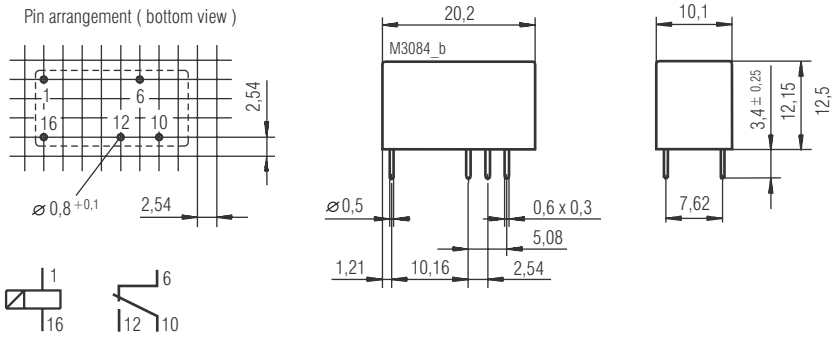


Limit curve for arc-free operation

Dimensions, pin configuration, connection diagrams



OR 5691.01



OR 5691.11

Connections for basic grid divensions 2,5 mm as well as 2,54 mm according to IEC/EN 60 097 and IEC 60 326 average.
Pin distance tolerance measured at the pin ends ± 0,3 mm. Dimensions are valid for untinned state.