

- Sensitive coil
- Ambient temperature to 105 °C
- For PCB and sockets
- Accessories: sockets and modules

## Contacts

Contact number & arrangement		1NO
Contact material		<b>AgSnO<sub>2</sub></b> , AgNi
Max. switching voltage	AC/DC	400 V / 300 V
Min. switching voltage		10 V AgSnO <sub>2</sub> , 5 V AgNi
Rated load	AC1	10 A / 250 V AC
	DC1	10 A / 24 V DC
Min. switching current		10 mA AgSnO <sub>2</sub> , 5 mA AgNi
Max. inrush current		20 A
Rated current		10 A
Max. breaking capacity	AC1	2 500 VA
Min. breaking capacity		1 W AgSnO <sub>2</sub> , 0,3 W AgNi
Resistance		≤ 100 mΩ
Max. operating frequency	AC1	• at rated load
		• no load
		600 cycles/hour
		72 000 cycles/hour

## Coil

Rated voltage	DC	5...48 V
Must release voltage		DC: ≥ 0,1 U <sub>n</sub>
Operating range of supply voltage		see Table 1 and Fig. 3
Rated power consumption	DC	0,25 W

## Insulation

Insulation category		C250 / B400
Insulation rated voltage		400 V AC
Dielectric strength	• coil - contact	5 000 V AC
	• contact - contact	1 000 V AC
Contact - coil distance	• clearance	≥ 10 mm
	• creepage	≥ 10 mm

## General data

Operating time (typical value)		8 ms
Release time (typical value)		3 ms
Electrical life	• resistive AC1 at temperature +105 °C	> 1,7 x 10 <sup>5</sup> 10 A, 230 V AC
		> 2,8 x 10 <sup>5</sup> 8 A, 230 V AC
		> 3,2 x 10 <sup>5</sup> 6 A, 230 V AC
	• cos φ	
• L/R=40 ms		> 10 <sup>5</sup> 0,12 A, 220 V DC
Mechanical life (cycles)		> 3 x 10 <sup>7</sup>
Dimensions (L x W x H)		29 x 12,7 x 15,7 mm
Weight		14 g
Ambient temperature	• storing	-40...+105 °C
	• operating	-40...+105 °C
Cover protection category		IP 40
Shock resistance		30 g
Vibration resistance		10 g 10...150 Hz
Solder bath temperature		max. 270 °C
Soldering time		max. 5 s

Standard contact material marked with bolt type.

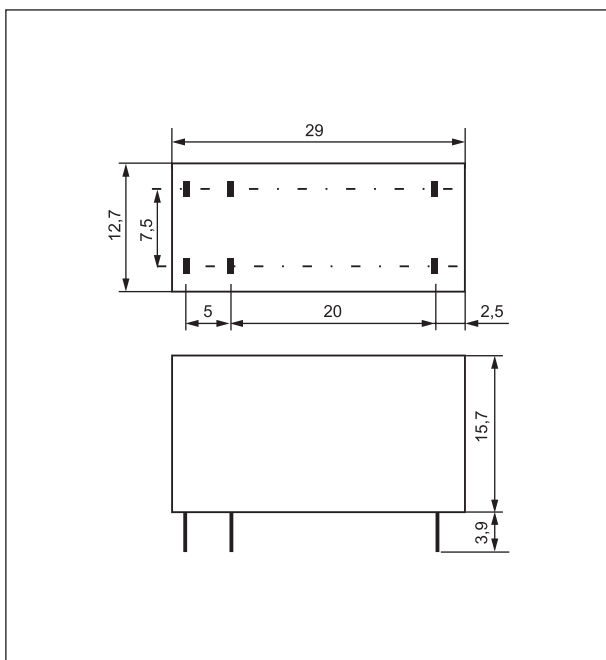


Coil data - DC voltage version

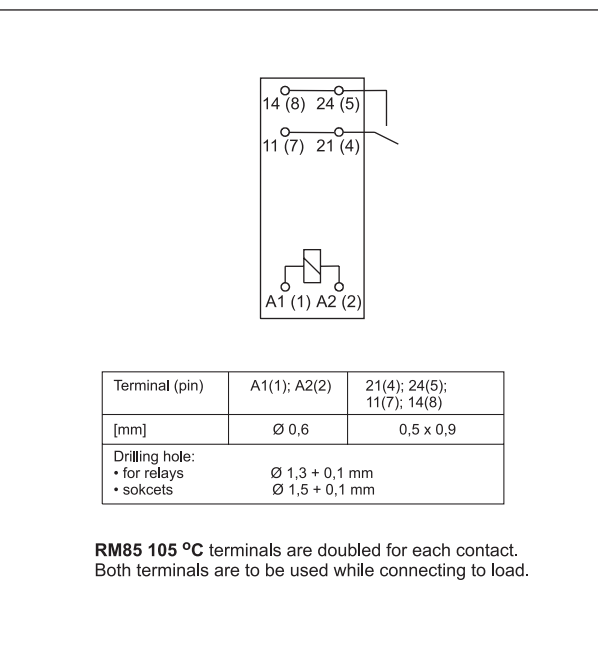
Table 1

Coil code	Rated voltage V DC	Coil resistance ±10% at 20 °C Ω	Coil operating range at 20 °C V DC	
			min.	max.
S005	5	102	3,75	15,0
S006	6	144	4,50	18,0
S009	9	330	6,75	27,0
S010	10	380	7,50	30,0
S012	12	580	9,00	36,0
S018	18	1 300	13,50	54,0
S024	24	2 300	18,00	72,0
S048	48	9 340	36,00	144,0

Dimensions

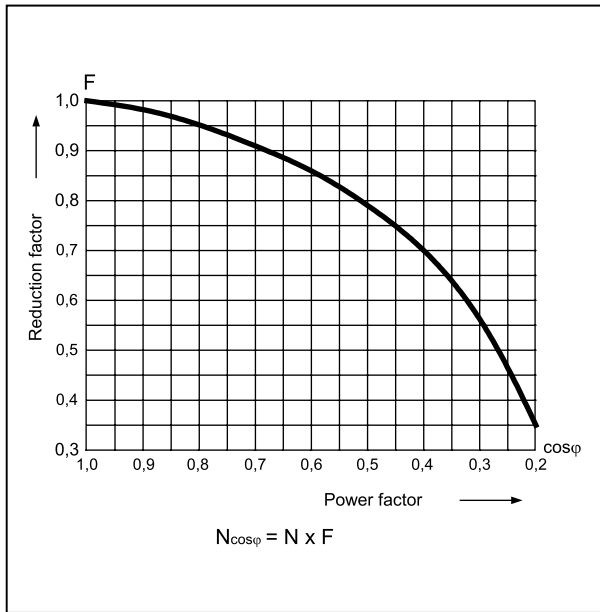


Connections diagram (pin side view)



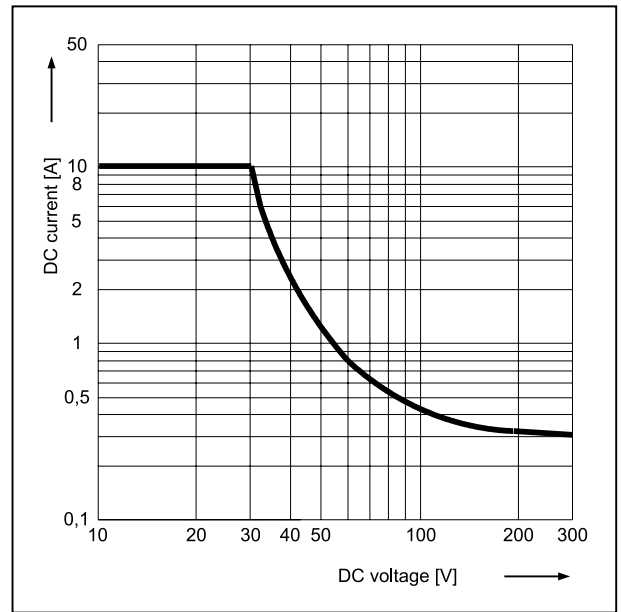
Electrical life reduction factor at AC inductive load

Fig. 1



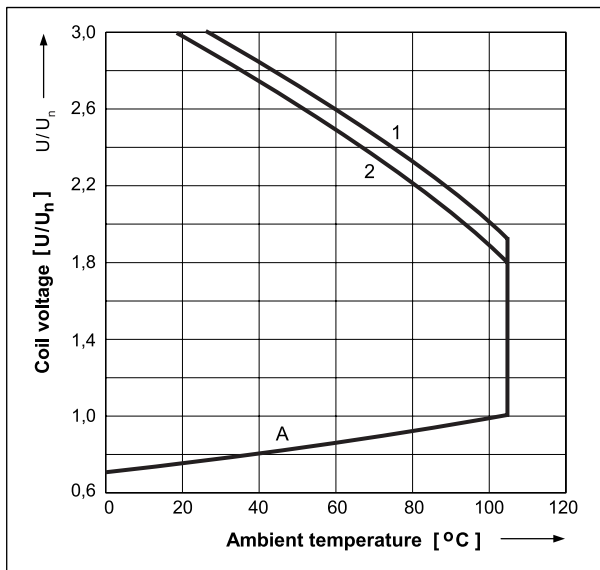
Max. DC resistive load breaking capacity

Fig. 2



Coil operating range

Fig. 3



Description of Fig. 3

**A** - relations between make voltage and ambient temperature at no load on contacts. Coil temperature and ambient temperature are equal before coil energizing. Make voltage is not higher than the value read on Y axis (multiplication of rated voltage).

**B** - relations between make voltage and ambient temperature after initial coil heating up with 1,1 U<sub>n</sub>, at continues load of I<sub>n</sub> on contacts. Make voltage is not higher than the value read on Y axis (multiplication of rated voltage).

**1, 2, 3** - values on Y axis represent allowed overvoltage on coil at certain ambient temperature and contact load:

- 1 - no load
- 2 - 50% of rated load
- 3 - rated load



Mounting

Relays **RM85 105 °C** are designed for: • direct PCB mounting • screw terminals sockets **GZT80** and **GZM80** with clip **GZT80-0040**, 35 mm DIN rail mount, EN 50022 or on panel mounting. M... type signalling and protection plug-in modules are available with sockets (see page 170) • terminals sockets for PCB mounting **PW80** and **GW80** with clip **MH16-2**.

Ordering codes

