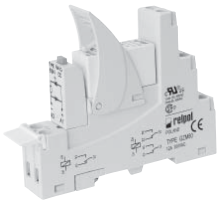


- 35 mm DIN rail mount, EN 50022 or on panel mounting with the M3 screw.
- Interface relay **PI84 with socket GZM80** consists of:
  - electromagnetic relay **RM84**, plug-in socket **GZM80** grey,
  - signalling / protecting module **type M...** LED green:
  version **LD** (polarization N: +A1/-A2) - M41G or M43G, version **LV** - M91G or M93G,
  - retainer / retractor clip **GZT80-0040**, white description plate **GZT80-0035**.
- Recognitions, certifications, directives: recognitions RM84, RoHS, CE

Contact data

Number and type of contacts		2 C/O
Contact material		**AgNi**
Max. switching voltage	AC/DC	400 V / 300 V
Min. switching voltage		5 V
Rated load	AC1	8 A / 250 V AC
	DC1	8 A / 24 V DC
Min. switching current		5 mA
Max. inrush current		15 A
Rated current		8 A
Max. breaking capacity	AC1	2 000 VA
Min. breaking capacity		0,3 W
Contact resistance		≤ 100 mΩ
Max. operating frequency		
• at rated load	AC1	600 cycles/hour
• no load		72 000 cycles/hour

Coil data

Rated voltage	50/60 Hz AC	12-**24**-120-**230** V
	DC	12-**24**-110 V
Must release voltage		AC: ≥ 0,15 U_n DC: ≥ 0,1 U_n
Operating range of supply voltage		see Tables 1, 2 and Fig. 4, 5
Rated power consumption	AC	0,75 VA
	DC	0,4...0,48 W

Insulation

Insulation category		C250 / B400
Insulation rated voltage		400 V AC
Rated surge voltage		4 000 V AC
Overvoltage category		III PN-EN 60664-1
Insulation pollution degree		3
Dielectric strength		
• between coil and contacts		5 000 V AC
• contact clearance		1 000 V AC
• pole - pole		2 500 V AC
Contact - coil distance		
• clearance		≥ 10 mm
• creepage		≥ 10 mm

General data

Operating time (typical value)		7 ms
Release time (typical value)		3 ms
Electrical life		
• resistive AC1		> 10^5 8 A, 250 V AC
• cosϕ		see Fig. 2
• cosϕ = 0,4		10^5 3 A, 250 V AC
• L/R=40 ms		> 10^5 0,12 A, 220 V DC
Mechanical life (cycles)		> 3 x 10^7
Dimensions (L x W x H)		78,1 x 15,9 x 66,5 mm
Weight		59 g
Ambient temperature		
• storage		-40...+85 °C
• operating		AC: -40...+70 °C DC: -40...+85 °C
Cover protection category		IP 20
Environmental protection		RM84: RTII GZM80: RT0 PN-EN 116000-3
Shock resistance		20 g
Vibration resistance	(NO/NC)	10 g / 5 g 10...150 Hz

The data in bold type pertain to the standard versions of the relays.

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.
012DC	12	360	8,4	30,6
024DC	**24**	**1 440**	**16,8**	**61,2**
110DC	110	25 200	77,0	280,0

The data in bold type pertain to the standard versions of the relays.

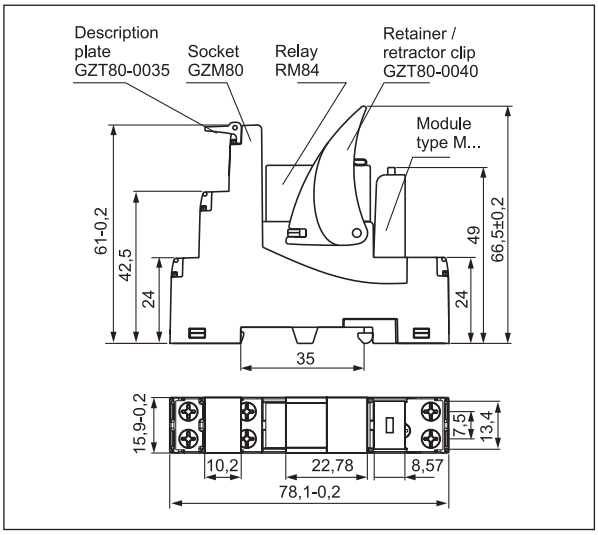
Coil data - AC 50/60 Hz voltage version

Table 2

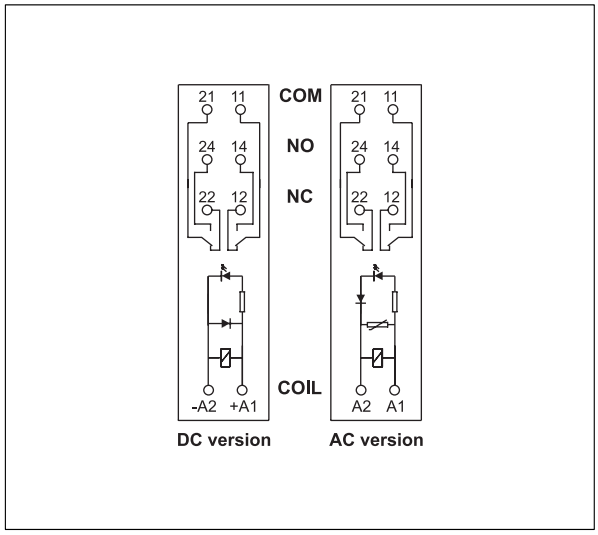
Coil code	Rated voltage V AC	Coil resistance ±10% at 20 °C Ω	Coil operating range at 20 °C V AC - 50 Hz	
			min.	max.
012AC	12	100	9,6	13,2
024AC	**24**	400	**19,2**	**26,4**
120AC	120	10 200	96,0	144,0
230AC	**230**	38 500	**184,0**	**253,0**

The data in bold type pertain to the standard versions of the relays.

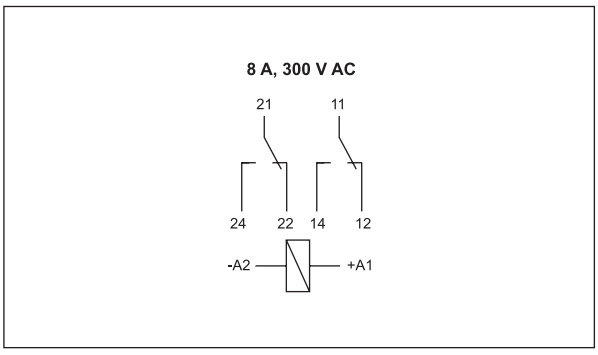
Dimensions



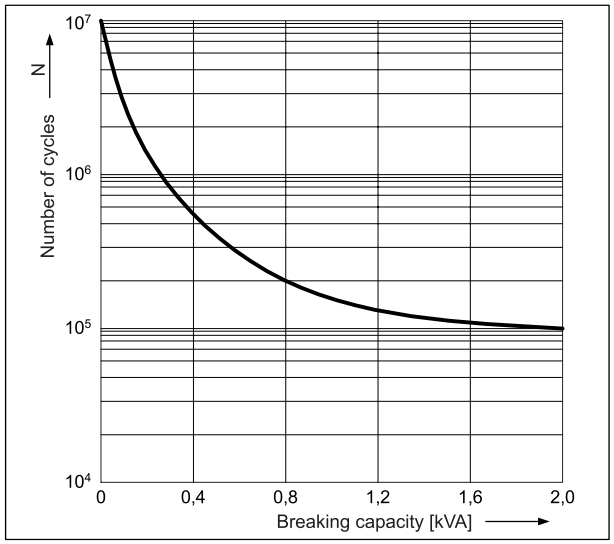
Connections diagrams
(screw terminals side view)



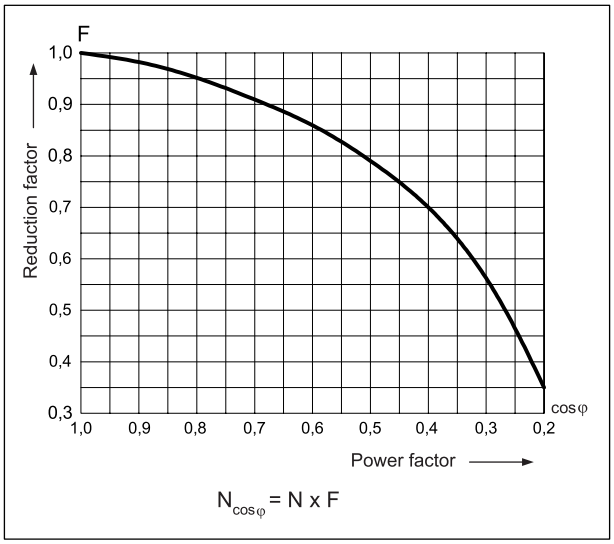
Connection of GZM80



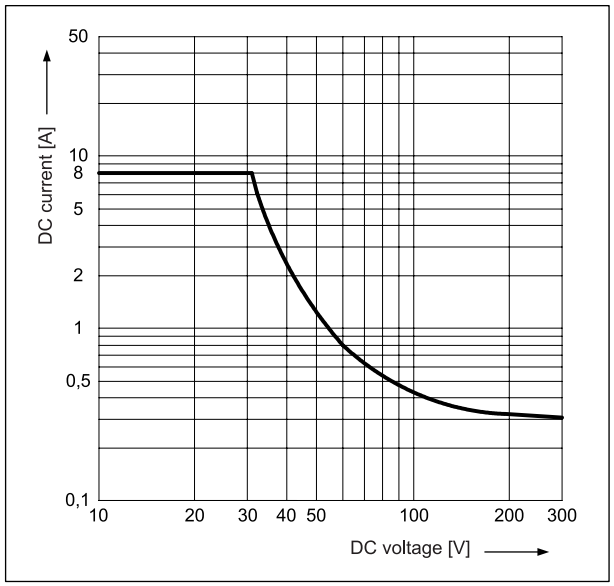
Electrical life at AC resistive load.
Maximum switching frequency at rated load Fig. 1



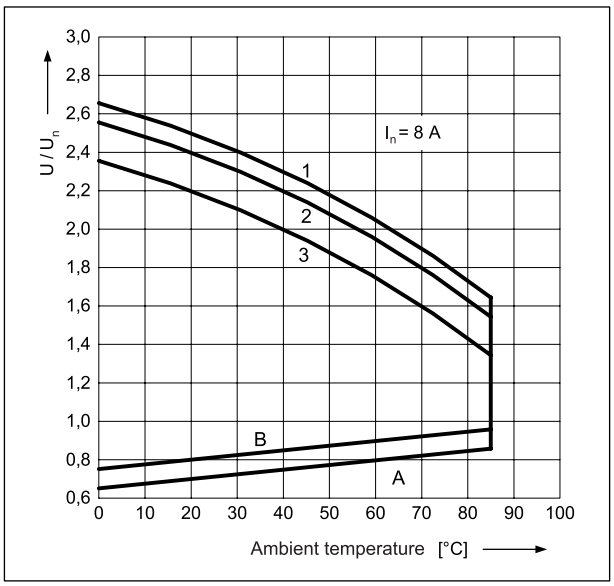
Electrical life reduction factor
at AC inductive load Fig. 2



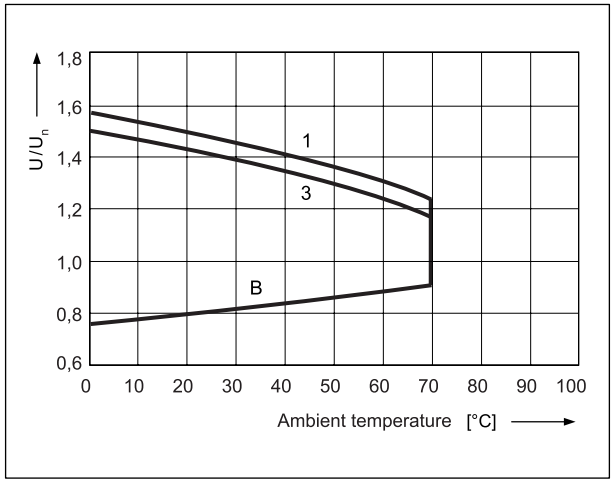
Max. DC resistive load breaking capacity Fig. 3



Coil operating range - DC Fig. 4



Coil operating range - AC 50 Hz Fig. 5



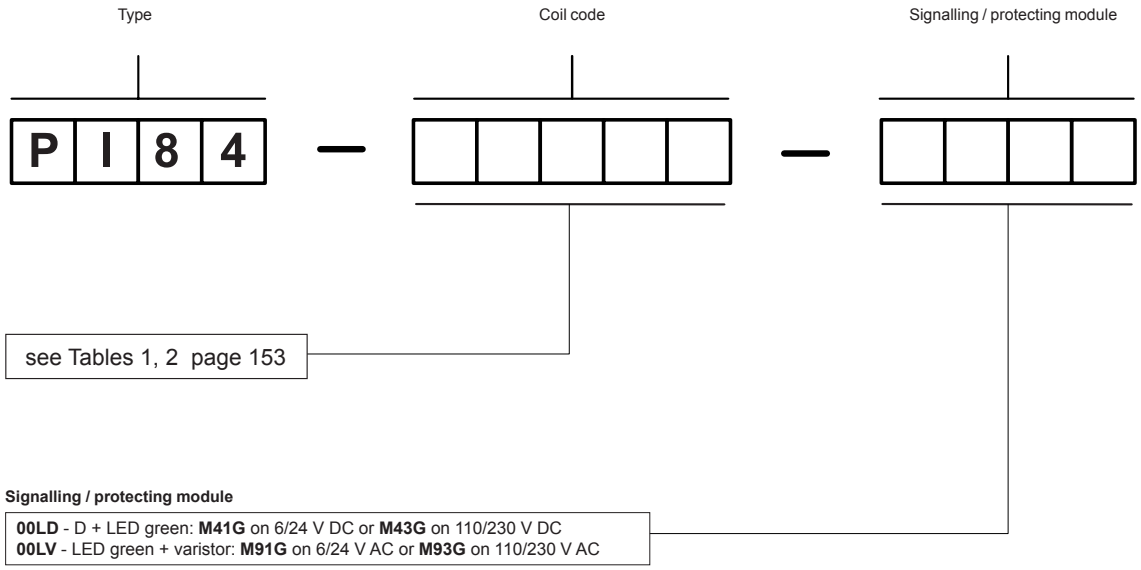
Description of Fig. 4 and 5

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_n, at continues load of I_n 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 **PI84 with socket GZM80** are designed for 35 mm DIN rail mount, EN 50022 or on panel mounting with the M3 screw.

Ordering codes



Examples of ordering codes:

PI84-012DC-00LD interface relay **PI84**, which consists of: relay **RM84**, voltage version 12 V DC, plug-in socket **GZM80** grey (screw terminals), signalling / protecting module **M41G** (version **LD**, polarization N: +A1/-A2, LED green), retainer / retractor clip **GZT80-0040**, white description plate **GZT80-0035**

PI84-230AC-00LV interface relay **PI84**, which consists of: relay **RM84**, voltage version 230 V AC 50/60 Hz, plug-in socket **GZM80** grey (screw terminals), signalling / protecting module **M93G** (version **LV**, LED green), retainer / retractor clip **GZT80-0040**, white description plate **GZT80-0035**