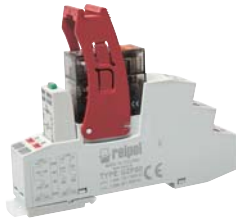


# PI85P with socket GZP80




## interface relays with Push-in terminals

RMP85 (AC) + GZP80



RMP85 (DC) + GZP80



- Interface relay **PI85P with socket GZP80** consists of: electromagnetic relay **RMP85**, grey plug-in socket **GZP80**, signalling / protecting module type **M...**, retainer / retractor clip **GZP80-0400** (plastic)
- 35 mm rail mount acc. to EN 60715 or on panel mounting with one M3 screw
- May be linked with interconnection strips type **ZGZP...**
- Recognitions, certifications, directives: recognitions RMP85, RoHS,   

### Contact data

Number and type of contacts		1 CO
Contact material		<b>AgNi</b>
Rated / max. switching voltage	AC	250 V / 300 V
Min. switching voltage		12 V 10 mA
Rated load	AC1	16 A / 250 V AC <b>1</b>
Min. switching current		10 mA 12 V
Max. inrush current		32 A 20 ms
Rated current		16 A
Max. breaking capacity	AC1	4 000 VA
Min. breaking capacity		0,12 W 10 mA / 12 V
Contact resistance		≤ 100 mΩ 1 A / 6 V DC
Max. operating frequency	• at rated load AC1 • no load	360 cycles/hour 18 000 cycles/hour

**NEW**

### Coil data

Rated voltage	50 Hz AC DC	<b>24</b> , 115, <b>230</b> V 12, <b>24</b> , 48, 110 V
Must release voltage		AC: ≥ 0,15 U <sub>n</sub> DC: ≥ 0,1 U <sub>n</sub>
Operating range of supply voltage		see Tables 1, 2
Rated power consumption	AC DC	0,75 VA 0,4 ... 0,48 W

### Insulation according to EN 60664-1

Insulation rated voltage		300 V AC
Rated surge voltage		4 000 V 1,2 / 50 μs
Overvoltage category		III
Insulation pollution degree		3
Dielectric strength	• between coil and contacts • contact clearance	5 000 V AC      type of insulation: reinforced 1 000 V AC      type of clearance: micro-disconnection
Contact - coil distance	• clearance • creepage	≥ 8 mm ≥ 8 mm

### General data

Operating / release time (typical values)		15 ms / 8 ms
Electrical life	• resistive AC1 (number of cycles)	> 3 x 10 <sup>4</sup> AC coils, 16 A, 250 V AC, ON for 5 s / OFF for 5 s > 10 <sup>4</sup> DC coils, 16 A, 250 V AC, ON for 5 s / OFF for 5 s > 3 x 10 <sup>4</sup> 16 A, 250 V AC, 70 °C, ON for 1 s / OFF for 9 s
Mechanical life (cycles)		> 10 <sup>6</sup> AC coils > 5 x 10 <sup>6</sup> DC coils
Dimensions (L x W x H)		97 x 15,9 x 75,8 mm
Weight		67 g
Ambient temperature	• storage (non-condensation and/or icing) • operating	-40...+70 °C -40...+55 °C
Cover protection category		IP 20      EN 60529
Environmental protection		RMP85: RTII      GZP80: RT0      EN 61810-7
Shock resistance		10 g
Vibration resistance	(NO/NC)	10 g / 5 g      length direction: 10 g / 2 g      10...150 Hz

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

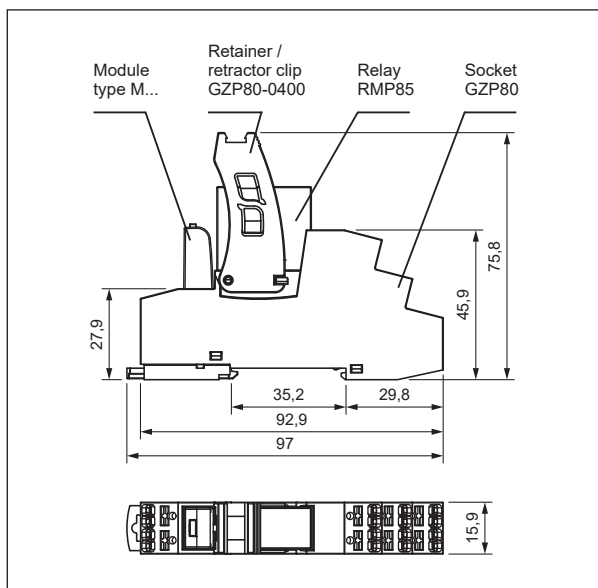
**1** Loads above 12 A require bridging pairs of Push-in terminals: 11 with 21, 12 with 22, 14 with 24 - see page 2.

23.12.2020

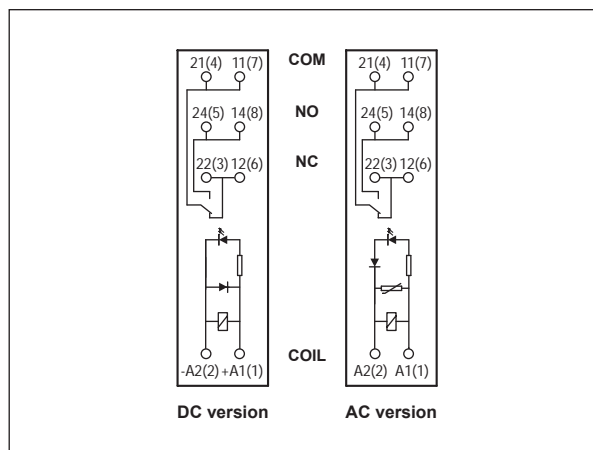
1

# PI85P with socket GZP80 interface relays with Push-in terminals

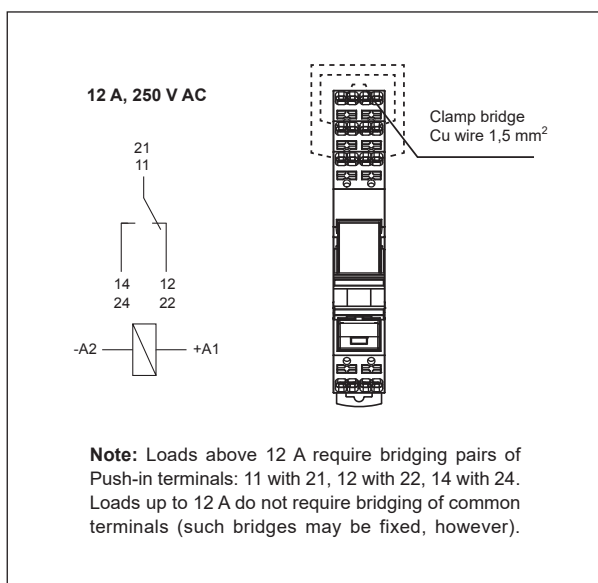
## Dimensions



## Connection diagrams (Push-in terminals side view)

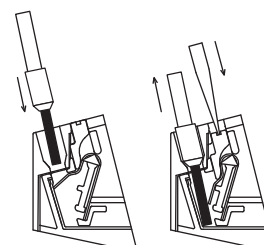


## Connection of GZP80 socket



## Wire connection

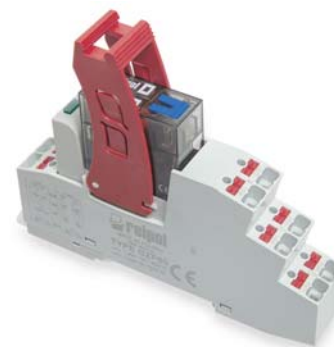
The drawings present inserting wire into the Push-in terminal and removing wire using the button releasing a clamp (assembly without tools).



## GZP80

Push-in terminals  
plug-in sockets  
for RM84, RM85...,  
RM87L, RM87P,  
RMP84, RMP85

**NEW**



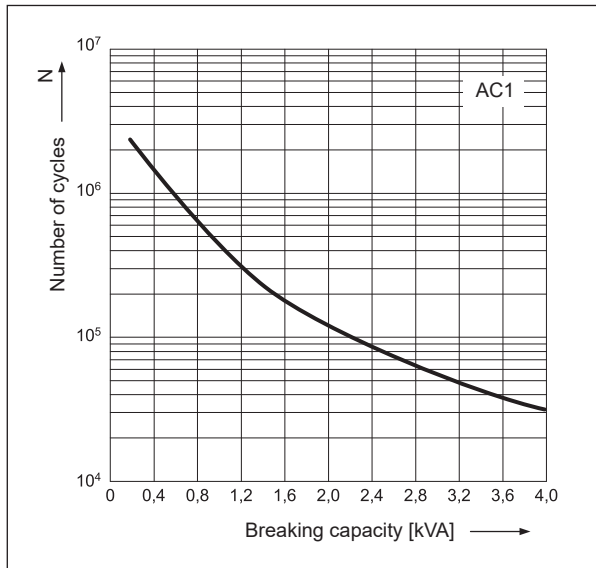
## PRECAUTIONS:

1. Ensure that the parameters of the product described in its specification provide a safety margin for the appropriate operation of the device or system and never use the product in circumstances which exceed the parameters of the product. 2. Never touch any live parts of the device. 3. Ensure that the product has been connected correctly. An incorrect connection may cause malfunction, excessive heating or risk of fire. 4. In case of any risk of any serious material loss or death or injuries of humans or animals, the devices or systems shall be designed so to equip them with double safety system to guarantee their reliable operation.

# PI85P with socket GZP80 interface relays with Push-in terminals

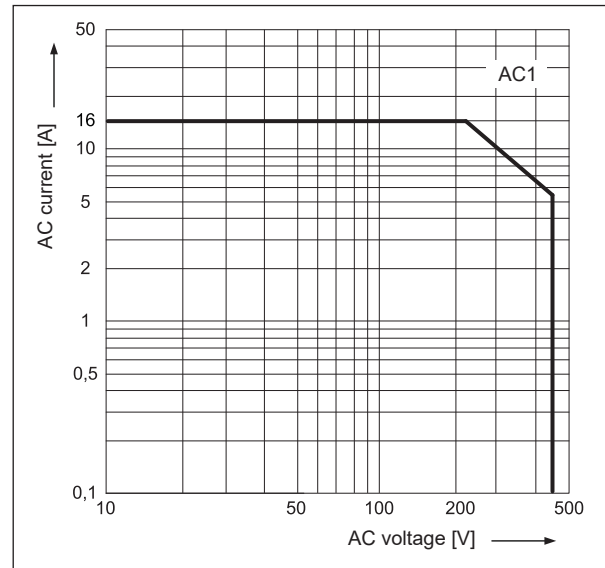
**Electrical life at AC resistive load.**  
Switching frequency: 360 cycles/hour

Fig. 1



**Max. AC 50 Hz resistive load breaking capacity**

Fig. 2



## Mounting

Relays **PI85P with socket GZP80** are designed for direct mounting on 35 mm rail mount acc. to EN 60715 or on panel mounting with one M3 screw. **Connections:** max. cross section of the cables: 2 x 1,5 mm<sup>2</sup> (ferrules without insulation), 2 x 1 mm<sup>2</sup> (ferrules with insulation), stripping length: 8...10 mm.

Plug-in sockets **GZP80** may be linked with interconnection strips type **ZGZP...** Strip **ZGZP80-8** bridges common input signals, maximum permissible current is 10 A / 250 V AC, possibility of connection of 8 sockets. Strip **ZGZP80-2** bridges common input or output signals, possibility of connection of 2+n sockets. Jumper **ZGZP-2** bridges the neighboring poles of single socket **GZP80**. Colours of strips: **ZGZP...GY** grey, **ZGZP...BK** black, **ZGZP...RD** red, **ZGZP...BE** blue (see page 5).

Description plates **MP15**, snap into tall marker groove, compatible with the standard for DIN rail terminal blocks, should be ordered separately.



**Terminals directed to wiring ducts:** esthetic cabling management, easier content reading from markers on wires.



**Holes for test probes:** ergonomic, stable position of the probe in the socket, freedom to perform measurements and control.



**Space for label:** for self-adhesive paper, foil or polyester tapes (max. width 9 mm).

# PI85P with socket GZP80

## interface relays with Push-in terminals

Coil data - DC voltage version

Table 1

Coil code	Rated voltage V DC	Coil resistance at 23 °C Ω	Acceptable resistance	Coil operating range V DC Ⓣ	
				min. (0...+70 °C)	max. (0...+70 °C)
012DC	12	360	± 10%	8,4	18,0
<b>024DC</b>	<b>24</b>	<b>1 440</b>	<b>± 10%</b>	<b>16,8</b>	<b>36,0</b>
048DC	48	5 760	± 15%	33,6	72,0
110DC	110	25 200	± 15%	77,0	165,0

The data in bold type relate to the standard versions of the relays. Ⓣ The max. allowable voltage is coil overdrive voltage, it is the instantaneous max. voltage which the relay coil could endure in very short time. Relays with 48 V DC and 110 V DC coils shall be absolutely protected against any possibility of operation at voltages higher than the rated voltage.

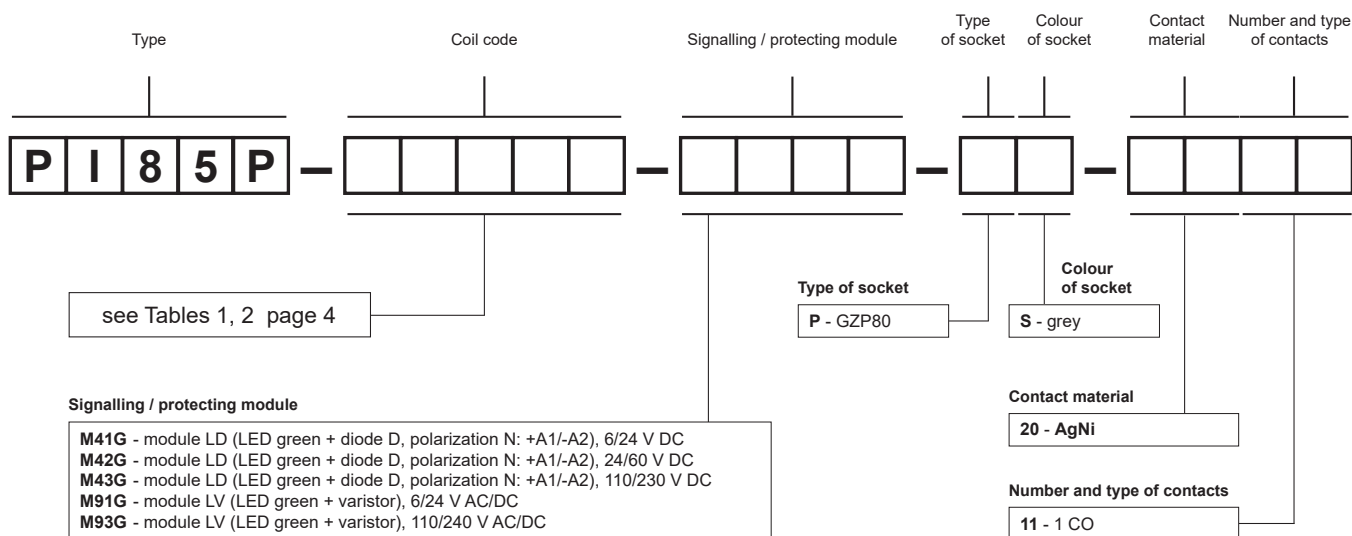
Coil data - AC 50 Hz voltage version

Table 2

Coil code	Rated voltage V AC	Coil resistance at 23 °C Ω	Acceptable resistance	Coil operating range V AC 50 Hz	
				min. (0...+70 °C)	max. (0...+70 °C)
<b>024AC</b>	<b>24</b>	<b>350</b>	<b>± 10%</b>	<b>18,0</b>	<b>26,4</b>
115AC	115	8 100	± 15%	86,3	126,5
<b>230AC</b>	<b>230</b>	<b>32 500</b>	<b>± 15%</b>	<b>172,5</b>	<b>253,0</b>

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

### Ordering codes



Examples of ordering codes:

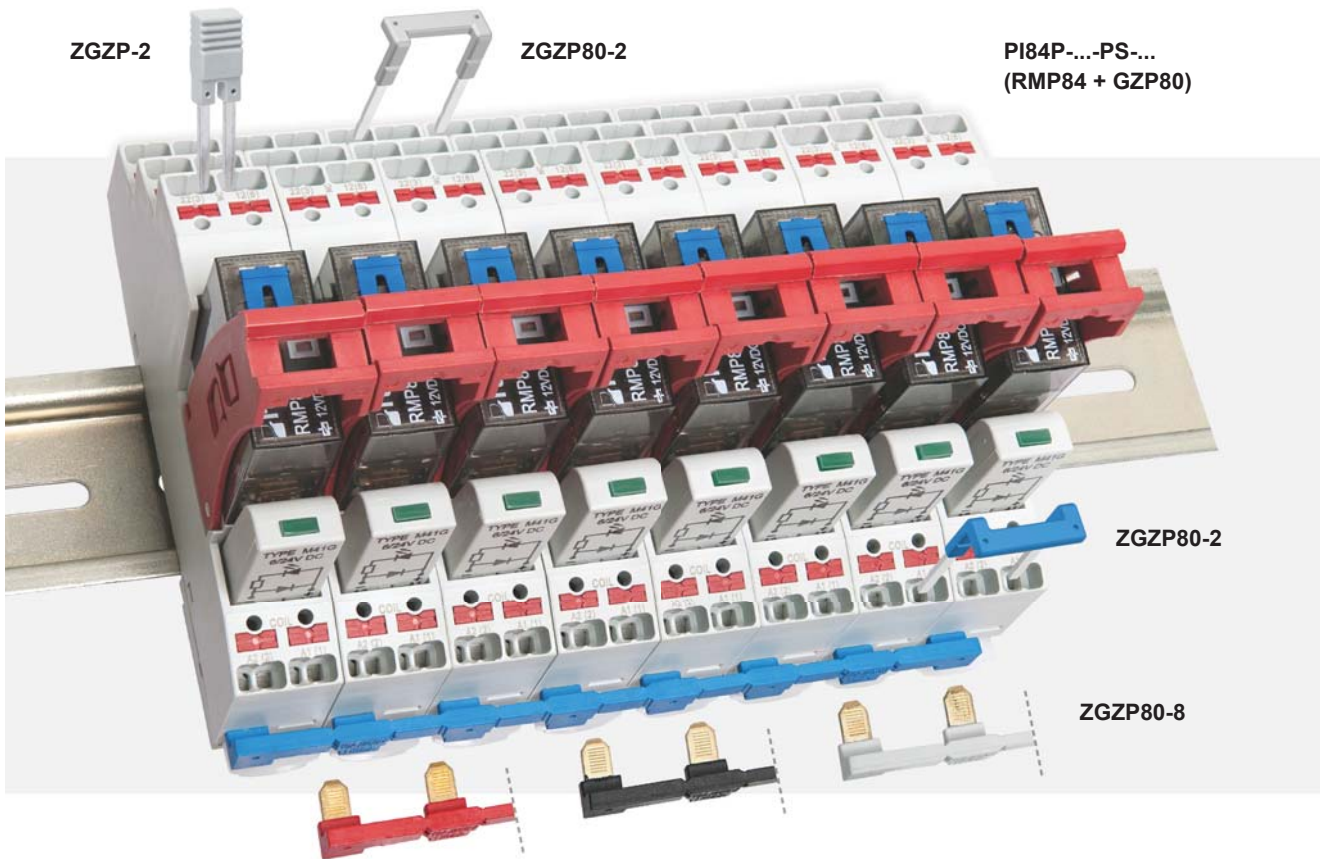
**PI85P-024DC-M41G-PS-2011**

interface relay **PI85P** consists of: relay **RMP85** (one changeover contact, contact material AgNi, coil voltage 24 V DC), socket **GZP80** (grey, Push-in terminals), signalling / protecting module **M41G** (version LD), retainer / retractor clip **GZP80-0400** (red, plastic)

**PI85P-230AC-M93G-PS-2011**

interface relay **PI85P** consists of: relay **RMP85** (one changeover contact, contact material AgNi, coil voltage 230 V AC 50 Hz), socket **GZP80** (grey, Push-in terminals), signalling / protecting module **M93G** (version LV), retainer / retractor clip **GZP80-0400** (red, plastic)

## Interconnection strips ZGZP...



### ■ ZGZP... for:

Plug-in sockets	Relays for plug-in sockets	Interface relays ①
GZP80	RM84, RM85, RM85 inrush, RM85 105 °C sensitive, RM87L ②, RM87P ②, RMP84, RMP85	PI84-...-PS-... (RM84 + GZP80) PI85-...-PS-... (RM85 + GZP80) PI84P-...-PS-... (RMP84 + GZP80) PI85P-...-PS-... (RMP85 + GZP80)

① Interface relay **PI84** (**PI85**, **PI84P**, **PI85P**) is offered as a **set**: electromagnetic relay **RM84** (**RM85**, **RMP84**, **RMP85**) + plug-in socket **GZP80** + signalling / protecting module type **M...** + retainer / retractor clip **GZP80-0400**.  
② Also versions RM87. sensitive

### ■ Interconnection strips ZGZP...

- designed for the co-operation with plug-in sockets of miniature relays and with interface relays PI84, PI85, PI84P, PI85P, which are equipped with Push-in terminals; sockets and relays are mounted on 35 mm rail mount acc. to EN 60715,
- strip **ZGZP80-8** bridges common input signals (coil terminals A1 or A2), maximum permissible current is 10 A / 250 V AC, possibility of connection of 8 sockets or relays,



ZGZP80-8 GY grey



ZGZP80-8 BK black



ZGZP80-8 RD red



ZGZP80-8 BE blue

- strip **ZGZP80-2** bridges common input signals (coil terminals A1 or A2) or output signals, possibility of connection of 2+n sockets or relays,



ZGZP80-2 GY grey



ZGZP80-2 BK black



ZGZP80-2 RD red



ZGZP80-2 BE blue

- jumper **ZGZP-2** bridges the neighboring poles of single socket **GZP80**.



ZGZP-2 GY grey



ZGZP-2 BK black



ZGZP-2 RD red



ZGZP-2 BE blue