

PIR3 with socket GZM3 interface relays



R3 + GZM3

- Interface relay **PIR3 with socket GZM3** consists of: electromagnetic relay **R3**, grey plug-in socket **GZM3**, signalling / protecting module: version **LD** - M41G or M42G or M43G (L - LED green, D - diode, polarization N: +A1/-A2); version **LV** - M91G or M92G or M93G (L - LED green, V - varistor), retainer / retractor clip **GZT4-0040** (plastic), white description plate **GZT4-0035**
- 35 mm rail mount acc. to PN-EN 60715 or on panel mounting with two M3 screws
- May be linked with interconnection strip type **ZGGZ4**
- Recognitions, certifications, directives: recognitions R3, RoHS, AUCOTEAM GmbH Berlin - railway standards,

Contact data

Number and type of contacts		3 CO		CE	
Contact material		AgNi			
Rated / max. switching voltage	AC	250 V / 440 V			
Min. switching voltage		5 V			
Rated load (capacity)	AC1	10 A / 250 V AC			
	AC15	3 A / 120 V 1,5 A / 240 V (B300)			
	AC3	370 W (single-phase motor)			
	DC1	10 A / 24 V DC (see Fig. 3)			
	DC13	0,22 A / 120 V 0,1 A / 250 V (R300)			
Min. switching current		5 mA			
Max. inrush current		20 A			
Rated current		10 A			
Max. breaking capacity	AC1	2 500 VA			
Min. breaking capacity		0,3 W			
Contact resistance		≤ 100 mΩ			
Max. operating frequency	AC1	• at rated load	1 200 cycles/hour		
		• no load	18 000 cycles/hour		
Coil data					
Rated voltage	50/60 Hz AC	12 ... 230 V			
	DC	12 ... 110 V			
Must release voltage		AC: ≥ 0,2 U _n DC: ≥ 0,1 U _n			
Operating range of supply voltage		see Tables 1,2			
Rated power consumption	AC	50 Hz: 1,6 VA 60 Hz: 1,3 VA			
	DC	0,9 W			
Insulation according to PN-EN 60664-1					
Insulation rated voltage		250 V AC			
Rated surge voltage		with AC coils: 2 500 V 1,2 / 50 μs with DC coils: 4 000 V 1,2 / 50 μs			
Overvoltage category		III			
Insulation pollution degree		3			
Dielectric strength	• between coil and contacts	2 500 V AC	type of insulation: basic		
	• contact clearance	1 500 V AC	type of clearance: micro-disconnection		
	• pole - pole	2 500 V AC	type of insulation: basic		
Contact - coil distance	• clearance	≥ 2,5 mm			
	• creepage	≥ 4 mm			
General data					
Operating / release time (typical values)		AC: 10 ms / 8 ms DC: 13 ms / 3 ms			
Electrical life	• resistive AC1	> 10 ⁵ 10 A, 250 V AC			
	• cos φ	see Fig. 2			
Mechanical life (cycles)		> 2 x 10 ⁷			
Dimensions (L x W x H)		75 x 27 x 82 mm			
Weight		107 g			
Ambient temperature	• storage	-40...+85 °C			
	• operating	AC: -40...+55 °C DC: -40...+70 °C			
Cover protection category		IP 20 PN-EN 60529			
Environmental protection		R3: RTI GZM3: RT0 PN-EN 116000-3			
Shock resistance	(NO/NC)	10 g / 5 g			
Vibration resistance		5 g 10...150 Hz			

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

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Coil data - DC voltage version

Table 1

Coil code	Rated voltage V DC	Coil resistance at 20 °C Ω	Acceptable resistance	Coil operating range V DC	
				min. (at 20 °C)	max. (at 55 °C)
012DC	12	160	± 10%	9,6	13,2
024DC	24	640	± 10%	19,2	26,4
048DC	48	2 600	± 10%	38,4	52,8
110DC	110	13 600	± 10%	88,0	121,0

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

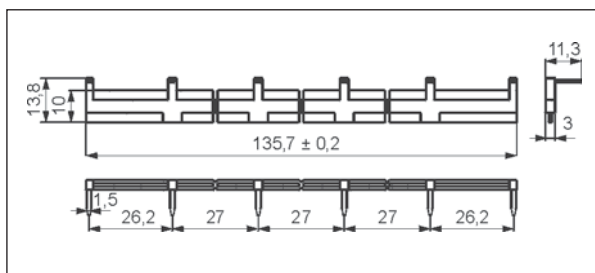
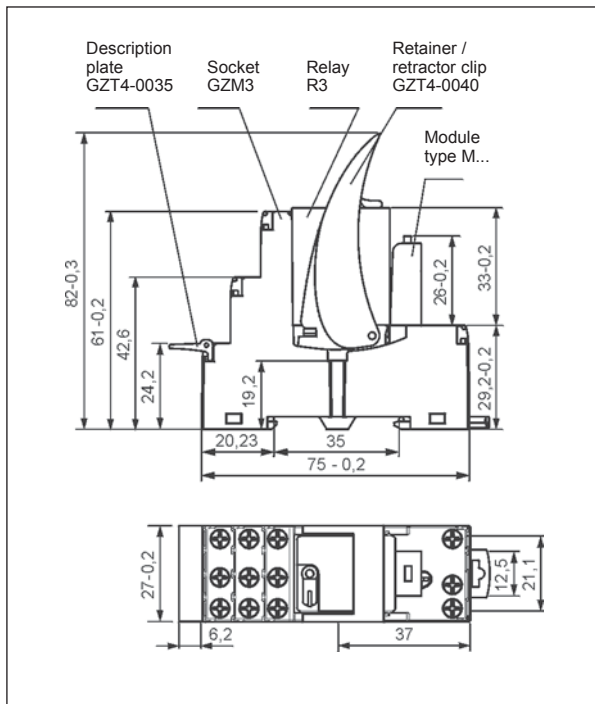
Coil data - AC 50/60 Hz voltage version

Table 2

Coil code	Rated voltage V AC	Coil resistance at 20 °C Ω	Acceptable resistance	Coil operating range V AC	
				min. (at 20 °C)	max. (at 55 °C)
012AC	12	39,5	± 10%	9,6	13,2
024AC	24	158,0	± 10%	19,2	26,4
048AC	48	640,0	± 10%	38,4	52,8
120AC	120	3 770,0	± 10%	96,0	132,0
230AC	230	16 100,0	± 10%	184,0	253,0

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

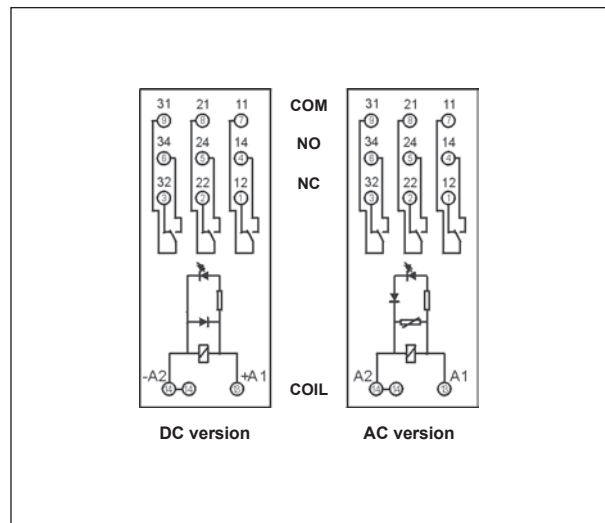
Dimensions



Interconnection strip type ZGGZ4

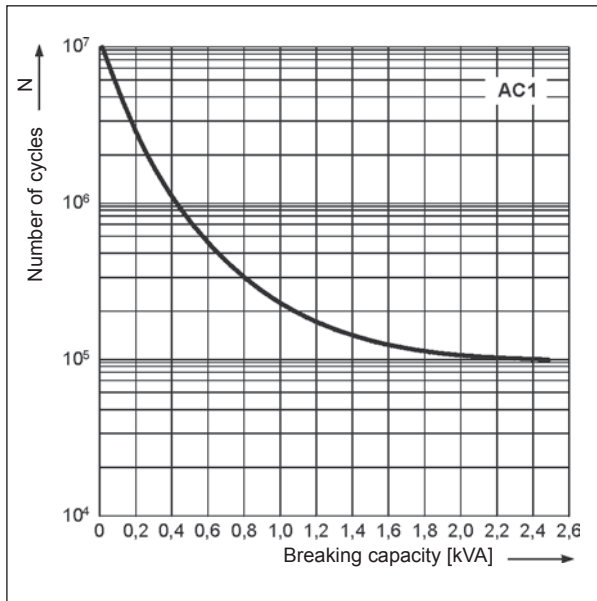
Connection diagrams

(screw terminals side view)



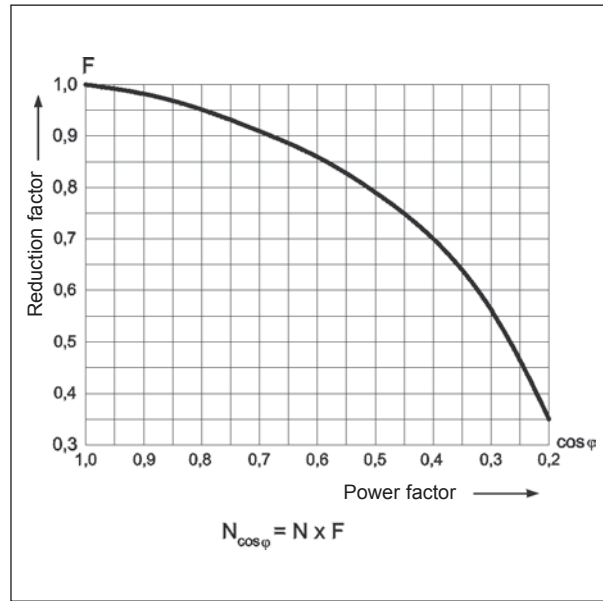
Electrical life at AC resistive load.
Switching frequency: 1 200 cycles/hour

Fig. 1



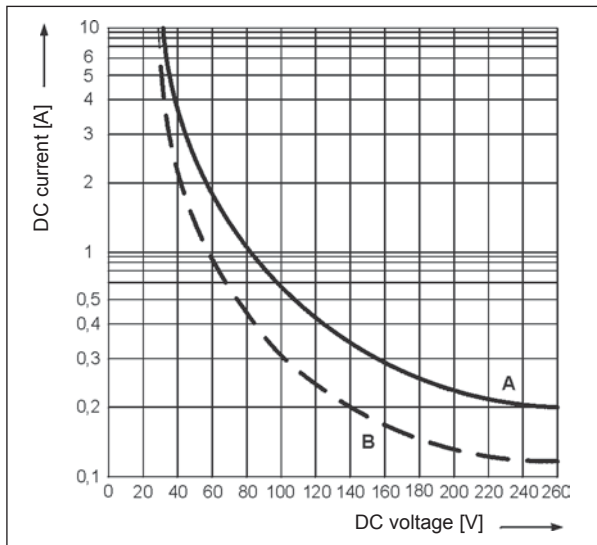
Electrical life reduction factor
at AC inductive load

Fig. 2



Max. DC breaking capacity
A - resistive load DC1
B - inductive load L/R = 40 ms

Fig. 3

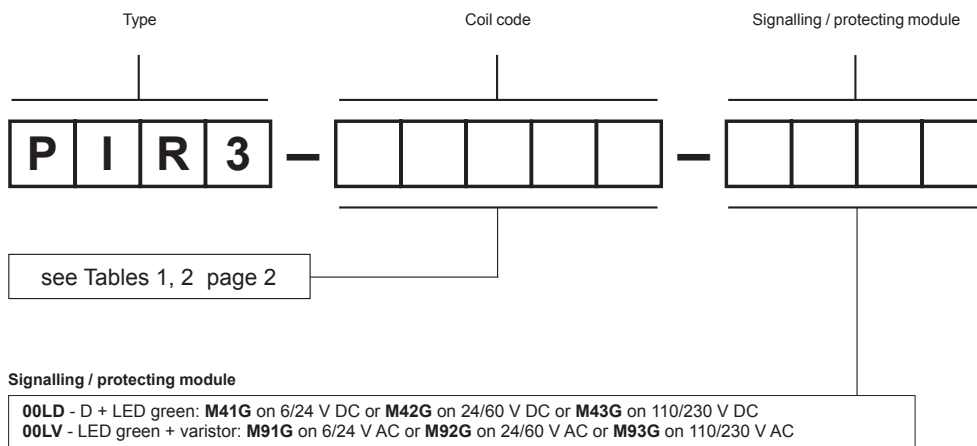


Mounting

Relays **PIR3 with socket GZM3** are designed for direct mounting on 35 mm rail mount acc. to PN-EN 60715 or on panel mounting with two M3 screws. **Connections:** max. cross section of the cables (stranded): 2 x 2,5 mm² (2 x 14 AWG), length of the cable deinsulation: 6,5 mm, max. tightening moment for the terminal: 0,7 Nm.

Plug-in sockets **GZM3** may be linked with interconnection strip type **ZGGZ4**. Strip **ZGGZ4** bridges common input signals, maximum permissible current is 10 A / 250 V AC. Possibility of connection of 6 sockets. Colours of strips: **ZGGZ4-1** grey, **ZGGZ4-2** black.

Ordering codes



Examples of ordering codes:

PIR3-012DC-00LD interface relay **PIR3**, which consists of: relay **R3** with coil 12 V DC, grey plug-in socket **GZM3** (screw terminals), signalling / protecting module **M41G** (version **LD**: L - LED green, D - diode, polarization N: +A1/-A2), retainer / retractor clip **GZT4-0040** (plastic), white description plate **GZT4-0035**

PIR3-230AC-00LV interface relay **PIR3**, which consists of: relay **R3** with coil 230 V AC 50/60 Hz, grey plug-in socket **GZM3** (screw terminals), signalling / protecting module **M93G** (version **LV**: L - LED green, V - varistor), retainer / retractor clip **GZT4-0040** (plastic), white description plate **GZT4-0035**

Interconnection strips ZGGZ4



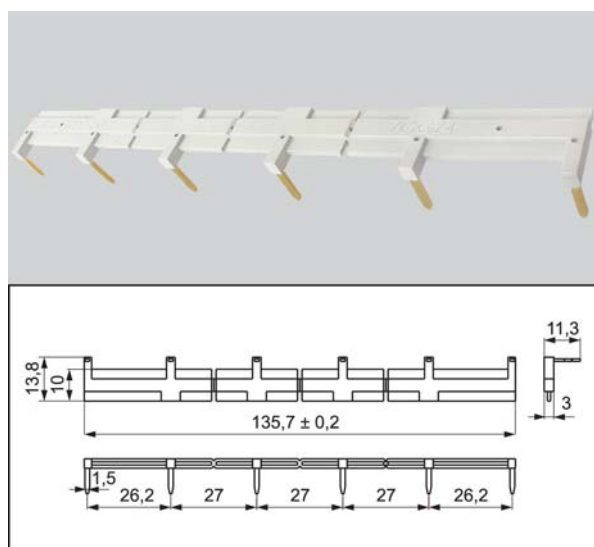
ZGGZ4 for:

Plug-in sockets	Relays for plug-in sockets	Interface relays ②
GZT2	R2...WT	PIR2-...-00L. (GZM2 + R2...WT)
GZM2		PIR3-...-00L. (GZM3 + R3...WT)
GZT3	R3...WT	PIR4-...-00L. (GZM4 + R4...WT)
GZM3		
GZT4	R4...WT	
GZM4		

② Interface relay PIR2 (PIR3, PIR4) is offered as a set: plug-in socket GZM2 (GZM3, GZM4) + miniature industrial relay R2 (R3, R4) + signalling / protecting module type M... + retainer / retractor clip GZT4-0040 + description plate GZT4-0035.

Interconnection strip ZGGZ4

- designed for the co-operation with plug-in sockets of miniature industrial relays and with interface relays PIR2, PIR3 and PIR4, which are equipped with screw terminals; sockets and relays are mounted on 35 mm rail mount acc. to PN-EN 60715,
- bridges common input signals (coil terminals A1 or A2) or output signals - see photo at the top,
- maximum permissible current is 10 A / 250 V AC,
- possibility of connection of 6 sockets or relays,
- colours of strips: **ZGGZ4-1** grey, **ZGGZ4-2** black.



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