

PIR152T, PIR153T with socket PZ...V0

railroad interface relays



- 35 mm rail mount acc. to EN 60715 or on panel mounting with two M3 screws
- Compliance with standards: EN 45545-2 (category EL10, requirement R26 - flammability class V-0 as per EN 60695-11-10); EN 61373:2011 category 1, class B (mechanical shock and vibration resistance); EN 50155:2007; EN 60077-1; EN 61810-1
- Recognitions, certifications, directives: recognitions R15T, RoHS, **CE EAC CTK**

Contact data

Number and type of contacts	2 CO, 3 CO		
Contact material	AgNi		
Rated switching voltage	AC	250 V	
Min. switching voltage		10 V	
Rated load (capacity)	AC1	10 A / 250 V AC	10 A / 277 V AC UL 508
	AC15	3 A / 120 V	1,5 A / 240 V (B300)
	DC1	10 A / 24 V DC (see Fig. 3)	
	DC13	0,22 A / 120 V	0,1 A / 250 V (R300)
Motor load	acc. to UL 508	1/2 HP	240 V AC, 4,9 FLA, single-phase motor ①
	AC3 acc. to IEC 60947-4-1	0,37 kW	240 V AC, single-phase motor
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	
		• no load	
		1 200 cycles/hour	12 000 cycles/hour
Coil data			
Rated voltage	DC	24, 110 V ②	
Must release voltage		≥ 0,1 U _n	
Operating range of supply voltage		0,7...1,25 U _n EN 50155:2007	see Table 1
Must operate voltage		≤ 0,7 U _n	
Rated power consumption	DC	1,7 W reinforced version	
Insulation according to EN 60664-1			
Insulation rated voltage		250 V AC	
Rated surge voltage		2 500 V 1,2 / 50 μs	
Overvoltage category		III	
Insulation pollution degree		3	
Flammability class		V-0 UL 94, EN 60695-11-10	
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		2 000 V AC type of insulation: basic
Contact - coil distance	• clearance		≥ 3 mm
	• creepage		≥ 4,2 mm
General data			
Operating / release time (typical values)		18 ms / 7 ms	
Electrical life	• resistive AC1		> 2 x 10 ⁵ 10 A, 250 V AC
	• cosφ		see Fig. 2
Mechanical life (cycles)		> 2 x 10 ⁷	
Dimensions (L x W x H)		68,2 x 38 x 82 mm	
Weight		PIR152T: 150 g	PIR153T: 159 g
Ambient temperature	• storage	-40...+85 °C	
(non-condensation and/or icing)	• operating	-40...+55 °C	
Cover protection category		IP 20	EN 60529
Environmental protection		R15T: RTI PZ8-V0, PZ11-V0: RT0	EN 61810-7
Shock / vibration resistance		category 1, class B EN 61373:2011 (set: relay in socket with clip)	

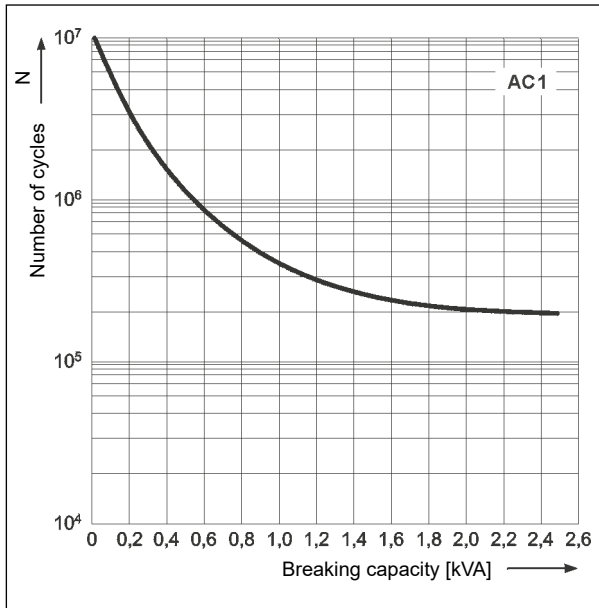
The data in bold type relate to the standard versions of the relays. ① For single phase motors for 110-120 V AC do not use motors with higher FLA than given for 240 V AC. ② For other voltages contact Relpol S.A., please.

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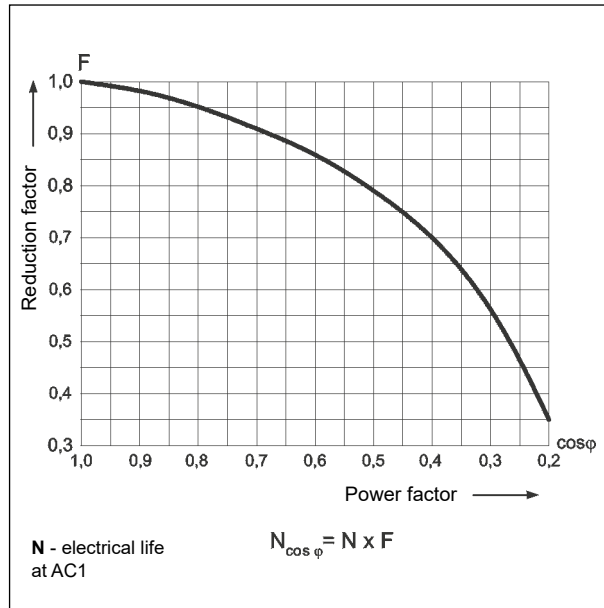
Electrical life at AC resistive load.
Switching frequency: 1 200 cycles/hour

Fig. 1



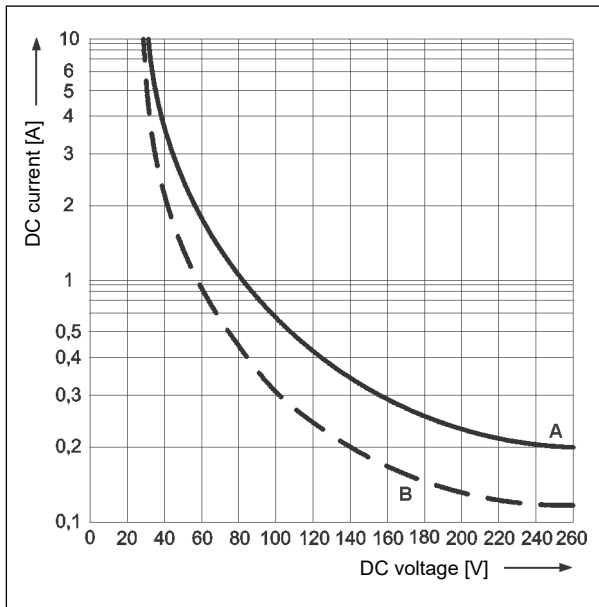
Electrical life reduction factor at AC inductive load

Fig. 2

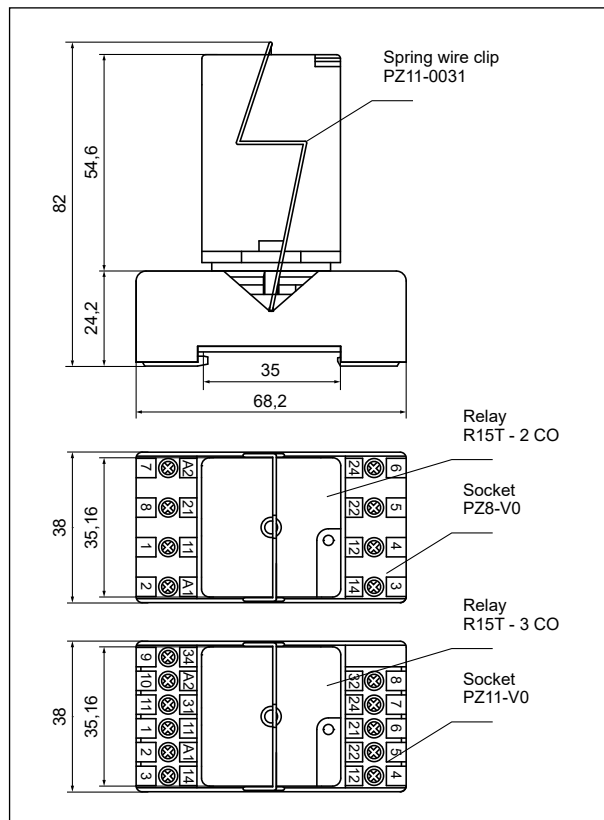


Max. DC breaking capacity
A - resistive load DC1
B - inductive load L/R = 40 ms

Fig. 3



Dimensions



R15T - 2 CO, 3 CO

Railroad industrial relays

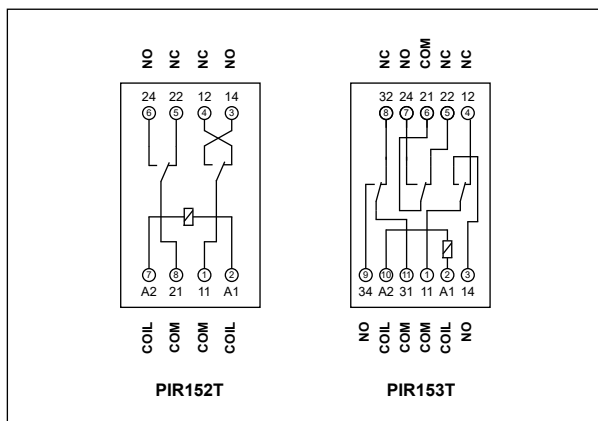
NEW



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Connection diagrams (screw terminals side view)



Mounting

Relays **PIR152T with socket PZ8-V0**, **PIR153T with socket PZ11-V0** are designed for direct mounting on 35 mm rail mount acc. to 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), stripping length: 7 mm, max. tightening moment for the terminal: 0,7 Nm.

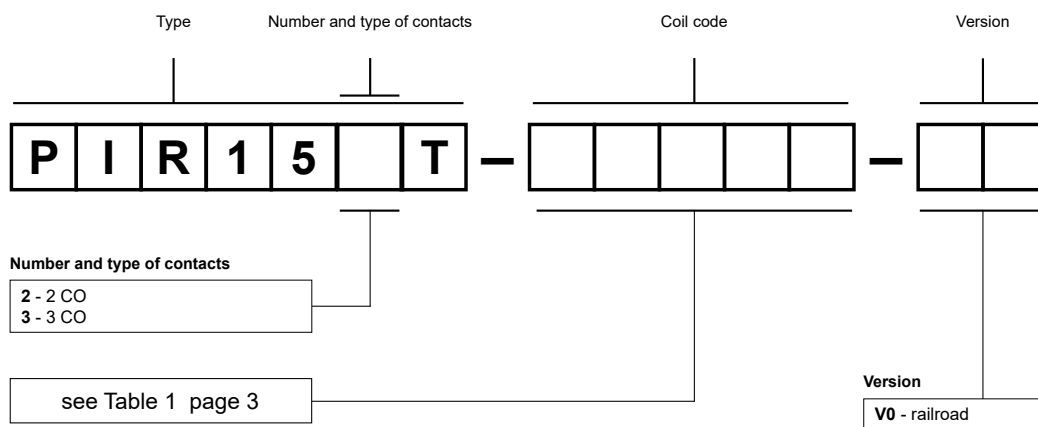
Coil data - DC voltage version

Table 1

Coil code	Rated voltage V DC ②	Coil resistance at 20 °C Ω	Acceptable resistance	Coil operating range V DC according to EN 50155:2007 ③	
				min.	max.
024DC	24	345	± 10%	16,8	30,0
110DC	110	7 300	± 10%	77,0	137,5

The data in bold type relate to the standard versions of the relays. ② For other voltages contact Relpol S.A., please. ③ Changes of voltage within the range 0,6...1,4 U_n below 0,1 s and changes of voltage within the range 1,25...1,4 U_n below 1 s are admissible and they do not distort operation of the relays.

Ordering codes



Examples of ordering codes:

PIR152T-024DC-V0

interface relay **PIR152T** (railroad version) consists of: relay **R15T - 2 CO** (two change-over contacts, contact material AgNi, reinforced coil voltage 24 V DC), socket **PZ8-V0** (grey, screw terminals), spring wire clip **PZ11-0031**

PIR153T-110DC-V0

interface relay **PIR153T** (railroad version) consists of: relay **R15T - 3 CO** (three change-over contacts, contact material AgNi, reinforced coil voltage 110 V DC), socket **PZ11-V0** (grey, screw terminals), spring wire clip **PZ11-0031**

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.