

PI6-1P / PI6-1T / PI6-OC

Subminiature Electromagnetic and Solid State Modules

- Width 6,2 mm
- Interface relays PI6-1P - with SPDT contact output / PI6-1T with triac output
- 35 mm rail mount
- Maybe linked with interconnection strip type ZG20
- Equipped in green LED



PI6-1P*

PI6-1T

PI6-OC

Contact data

Number and type of contacts	SPDT	SPST(1N0)	SPST(1N0)
Contact material	AgSnO ₂		
Max. switching voltage	400 V AC / 250 V DC	400 V / 440 V	70 V / 70 V
Min. switching voltage	10 V	20 V	5 V
Rated load	6 A / 250 V AC	1.2 A / 400 V AC	
	6 A / 24 V DC; 0.15 A / 250 V DC		0.5 A / 70 V DC
Min. switching current	100 mA	10 mA	1 mA
Max. inrush current	10 A 20 ms		
Max. non-repeat surge current		30 A ² t=20 ms	
Rated current	6A	1.2 A	0.5 A
Max. breaking capacity	1500 VA		
Min. breaking capacity	1 W		
Contact resistance	≤ 100 mΩ 100 mA. 24 V		
I ² t for fusing		5.1 A ² s t=1-10 ms	
dI/dt		50 A/μs	
dV/dt		40 V/μs	
Max. operating frequency			
• at rated load	360 cycles/hour		
• no load	72 000 cycles/hour		

Input circuit

Rated voltage	DC	12 ... 36 V	5...32 V	5...32 V
	AC: 50/60 Hz AC/DC	24 ... 230 V	24 ... 230 V	24 ... 230 V
Turn-off voltage			AC: ≥ 0.2 U _N ; DC: ≥ 0.1 U _N	AC: ≥ 0.2 U _N ; DC: ≥ 0.1 U _N
Must release voltage		AC: ≥ 0.2 U _N ; DC: ≥ 0.1 U _N		
Operating range of supply voltage		see page 91		
Must operate voltage		AC and DC: ≤ 0.8 U _N		
Rated power consumption	DC	0.3 ... 0.7 W	0.3 W; 5...32 V DC at 24 V	0.3 W; 5...32 V DC at 24 V
	AC/DC	0.3 ... 1.6 VA / 0.3 ... 1.6 W	0.3 VA / 0.3 W; 24 V AC/DC	0.3 VA / 0.3 W; 24 V AC/DC
	AC/DC		1.6 VA / 1.6 W; 230 V AC/DC	1.0 VA / 1.0 W; 230 V AC/DC

Insulation

Insulation rated voltage	400 V AC	600 V AC	600 V AC
Rated surge voltage	4 000 V 1.2 / 50 μs		
Overvoltage category	III		
Insulation pollution degree	3	2	2
Dielectric strength			
• input - output	4000 V AC 50/60 Hz. 1 min.. type of insulation: reinforced	4000 V AC 50/60 Hz. 1 min.. type of insulation: reinforced	3000 V AC 50/60 Hz. 1 min.. type of insulation: reinforced
• input - output	6000 V 1.2 / 50 μs		
• mass - input. output	2500 V AC 50/60 Hz. 1 min.		
• contact clearance	1000 V AC 50/60 Hz. 1 min.. type of clearance: micro-disconnection		
Input - output distance			
• clearance / creepage	≥ 6 mm / ≥ 8 mm		

General data

Operating time (typical value)	AC: 7 ms; DC: 6 ms	10 ms max. (zero turn-on)	
Release time (typical value)	AC: 15 ms; DC: 10 ms	10 ms max.	
Electrical life			
• resistive AC1	> 0.6 x 10 ⁵ ; 6 A. 250 V AC		
• cos φ = 0.4	> 2 x 10 ⁵ ; 2 A. 250 V AC		
• resistive DC1	10 ⁵ ; 6 A. 30 V DC		
Mechanical life (cycles)	> 2 x 10 ⁷		
Max. switching frequency			10 kHz 5...32 V DC (for load up to 24 V DC: 15 kHz)
Dimensions (L x W x H)	93.8 x 6.2 x 80 mm	93.8 x 6.2 x 80 mm	93.8 x 6.2 x 80 mm
Weight	40 g	40 g	40g
Ambient temperature			
• storage	-40...+70 °C	-40...+70 °C	-40...+70 °C
• operating	AC: -40...+55 °C; DC (12. 24 V): -40...+60 °C	-40...+55 °C	-40...+55 °C
Protection category	IP 20 PN-EN 60529	IP 20 PN-EN 60529	IP 20 PN-EN 60529
Environmental protection	RTI PN-EN 116000-3	RTI PN-EN 116000-3	RTI PN-EN 116000-3

* UL Recognized

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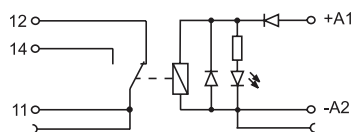


PI6-1P

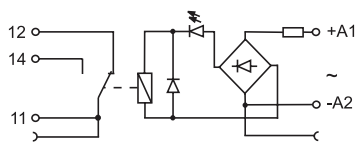


CONNECTION DIAGRAMS

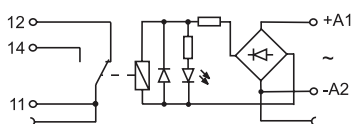
PI6-1P-12VDC, PI6-1P-12VDC-01
PI6-1P-24VDC, PI6-1P-24VDC-01
PI6-1P-36VDC, PI6-1P-36VDC-01



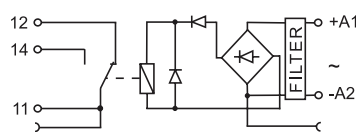
PI6-1P-115VAC/DC
PI6-1P-230VAC/DC, PI6-1P-230VAC/DC-01



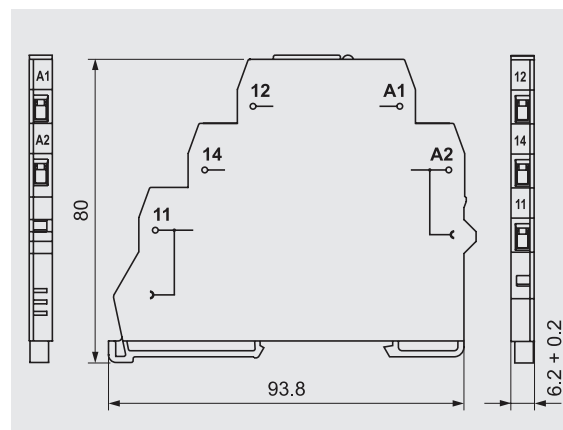
PI6-1P-24VAC/DC, PI6-1P-24VAC/DC-01
PI6-1P-42VAC/DC



PI6-1P-230VAC/DC-10



DIMENSIONS



PI6-1P SPDT AC 50/60Hz & DC coil

Part Number	Rated input voltage Un	Power of input circuit	Input voltage range in V	
			min. (at 20°C)	max. (at 55°C)
PI6-1P-12VDC	12 V DC	0.3 W	9.6	14.1
PI6-1P-24VDC	24 V DC	0.4 W	19.2	28.0
PI6-1P-36VDC	36 V DC	0.7 W	28.8	40.0
► PI6-1P-24VAC/DC	24 V AC/DC	0.5 VA / 0.5 W	19.2	26.4
PI6-1P-42VAC/DC	42 V AC/DC	0.3 VA / 0.3 W	33.6	50.0
► PI6-1P-115VAC/DC	115 V AC/DC	0.8 VA / 0.8 W	92.0	130.0
PI6-1P-230VAC/DC	230 V AC/DC	0.8 VA / 0.8 W	184.0	253.0

► BOLD - Regular stocked items.

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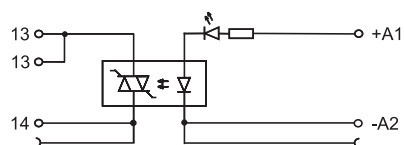


PI6-1T

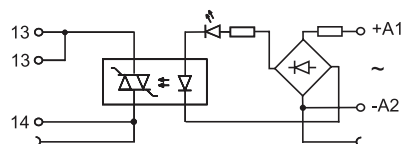


CONNECTION DIAGRAMS

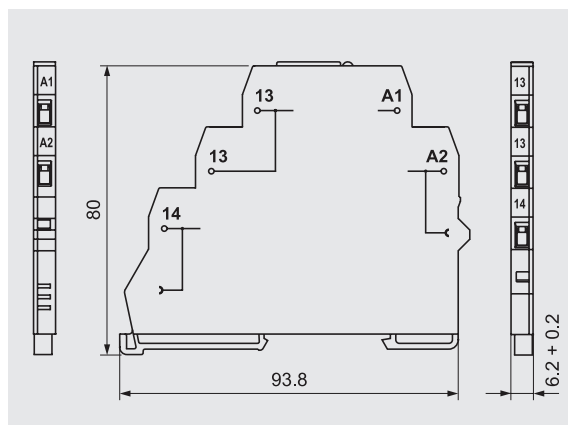
PI6-1T-5...32VDC



**PI6-1T-24VAC/DC
PI6-1T-230VAC/DC**



DIMENSIONS



PI6-1T SPST(1NO) AC 50/60Hz & DC coil

Part Number	Rated input voltage Un	Power of input circuit
► PI6-1T-5...32VDC	5...32 V DC	0.3 W at 24V
PI6-1T-24VAC/DC	24 V AC/DC	0.3 VA / 0.3 W
PI6-1T-230VAC/DC	230 V AC/DC	1.6 VA / 1.6 W

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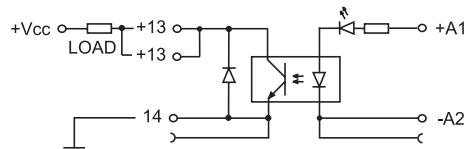


PI6-OC

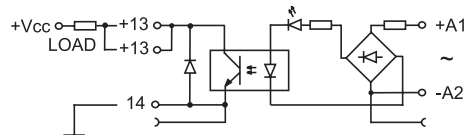


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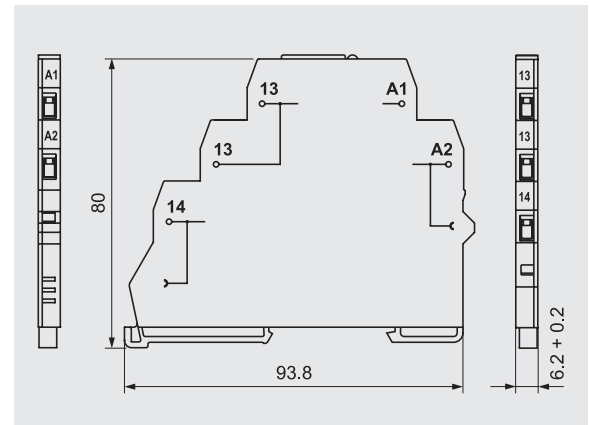
PI6-OC-5...32VDC



PI6-OC-24VAC/DC PI6-OC-230VAC/DC



DIMENSIONS



PI6-OC SPST(1NO) AC 50/60Hz & DC coil

Part Number	Rated input voltage Un	Power of input circuit
► PI6-OC-5...32VDC	5...32 V DC	0.3 W at 24V
PI6-OC-24VAC/DC	24 V AC/DC	0.3 VA / 0.3 W
PI6-OC-230VAC/DC	230 V AC/DC	1.0 VA / 1.0 W

► **BOLD** - Regular stocked items.

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