PIR6WB-1PS

Subminiature Electromagnetic and Solid State Modules

- Spring Clamp Terminals
- Electronic **spring** terminals socket (PI6W-1PS)
- Electromagnetic relay (RM699BV) or solid state relay (RSR30)
- Width 6.2 mm
- Equipped with green LED

E105728 E228916

PIR6WB-1PS

Electromagnetic Relay (RM699BV) contact information

Number and type of contacts (code of output)		SPDT (R)	SPDT (R-01)
Contact material		**$AgSnO_2$**	**$AgSnO_2$ / Au3µm**
Max. switching voltage		400 V AC / 250 V DC	30 V AC / 36 V DC
Min. switching voltage	AC / DC	10 V	5 V
Rated load	AC1	6 A / 250 V AC	0.05 A / 30 V AC
	DC1	6 A / 24 V DC; 0.15 A / 250 V DC	0.05 A / 36 V DC
Min. switching current		100 mA	10 mA
Max. inrush current		10 A 20 ms	0.1 A 20 ms
Rated current		**6A**	**0.05A**
Max. / Min. breaking capacity	AC1	1500 VA / 1 W	1.2 VA / 0.05 W
Contact resistance		≤ 100 mΩ 100 mA. 24 V	≤ 30 mΩ 10 mA. 5 V
Max. operating frequency			
• at rated load	AC1	360 cycles/hour	360 cycles/hour
• no load		72 000 cycles/hour	72 000 cycles/hour

Solid State (RSR30) output information

Type of output (code of output)		Triac (T) max. 2 A	Transistor (C) max. 1 A	Transistor (O) max. 2 A
Number and type of outputs		**SPST (1 NO)**	**SPST (1 NO)**	**SPST (1 NO)**
Rated voltage		240 V AC	48 V DC	24 V DC
Max./ Min. output voltage		280 V AC / 12 V AC	60 V DC / 1,5 V DC	32 V DC / 1,5 V DC
Rated continuous output current	AC1	**1A**		
	DC1		**1A**	**2A**
Min. making capacity current		50 mA	1 mA	1 mA
Max. off-state leakage current (rest condition)		1,5 mA	1 mA	1 mA
Max. on-state voltage drop on the connection (operating state)		1,2 V	0,4 V	0,24 V
Operating switching frequency			10 Hz	10 Hz

Input Circuit

Rated voltage	DC	6 ... 60 V
	AC: 50/60 Hz AC/DC	24 ... 230 V
Must release voltage		AC: ≥ 0.2 U_n; DC: ≥ 0.1 U_n
Operating range of supply voltage		0.8...1.2 U_n; 0.85...1.2 U_n 6 V DC
Must operate voltage		≤ 0.8 U_n; ≤ 0.85 U_n 6 V DC
Rated power consumption	DC	0.2 ... 0.5 W
	AC/DC	0.5 ... 1.2 VA / 0.4 ... 1.2 W

Insulation

Insulation rated voltage	250 V AC
Rated surge voltage	4000 V 1.2 / 50 µs
Overvoltage category	III
Insulation pollution degree	3
Dielectric strength: input - output	4000 V AC 50/60 Hz. 1 min.. type of insulation: reinforced
Dielectric strength: input - output	6000 V 1.2 / 50 µs
Dielectric strength: contact clearance	1000 V AC 50/60 Hz. 1 min.. output R and R-01
Input - output distance: clearance / creepage	≥ 6 mm / ≥ 8 mm

General data

Operating time (typical value)	PIR6W-1PS-...-R/-R01:	DC: 8 ms	AC/DC: 20 ms
	PIR6W-1PS-...-T:	DC: 100 µs	AC/DC: 10 ms
	PIR6W-1PS-...-C/-O:	DC: 50 µs	AC/DC: 10 ms
Release time (typical value)	PIR6W-1PS-...-R/-R01:	DC: 10 ms	AC/DC: 25 ms
	PIR6W-1PS-...-T:	DC: 1/2 cycle + 1 ms	AC/DC: 30 ms
	PIR6W-1PS-...-C/-O:	DC: 600 µs	AC/DC: 20 ms
Electrical life (resistive AC1)	PIR6W-1PS-...-R:	> 0.5 x 10^5	6 A. 250 V AC
Mechanical life (cycles)	PIR6W-1PS-...-R/-R01:	> 10^7	
Dimensions (L x W x H)	98.5 x 6.2 x 84.6 mm		
Weight	55 g		
Ambient temperature: storange	PIR6W-1PS-...--R/-R01-T:	-40...+70 °C	...-C/-O: -25...+70 °C
Ambient temperature: operating	PIR6W-1PS-...-R/-R01:	-40...+55 °C	...-T/-C/-O: -20...+55 °C
Protection category	IP 20 PN-EN 60529		
Environmental protection	RTI PN-EN 116000-3		
Shock resistance	10 g		
Vibration resistance	5 g 10...500 Hz		

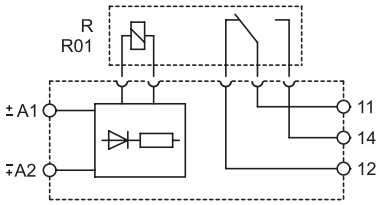
T - triac; C - transistor; O - transistor.

PIR6WB-1PS

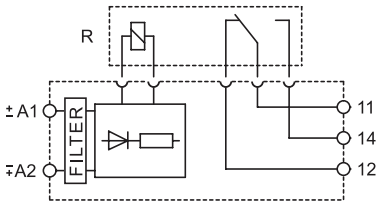
E105728 E228916

CONNECTION DIAGRAMS

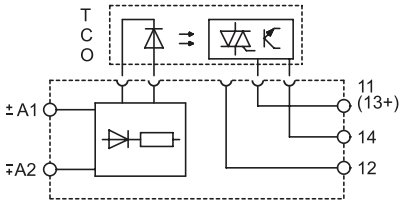
PIR6WB-1PS-...-R, PIR6WB-1PS-...-R01



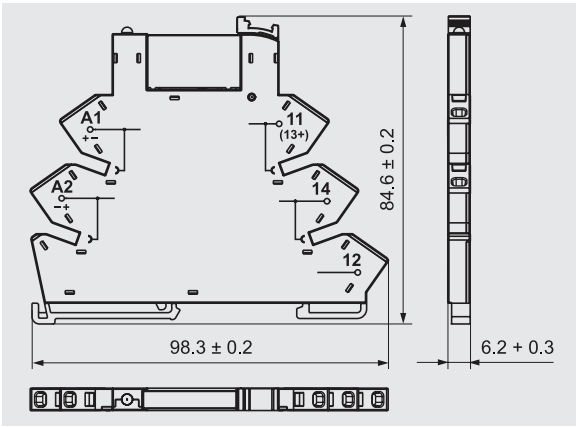
PIR6WB-1P-230VAC/DC-10

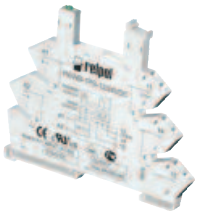


PIR6WB-1PS-...-T, PIR6WB-1PS-...-C, PIR6WB-1PS-...-O



DIMENSIONS

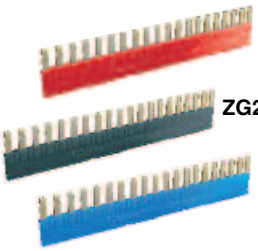




PI6WB-1PS-...

RM699BV

RSR30



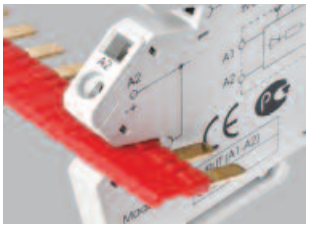
ZG20-1

ZG20-2

ZG20-3

PI6W-1246

Green LED:
signalling the operation status of the relay.



Interconnection strip ZG20:
bridging of common input or output signals.

Movable ejector: protection and easy replacement of the operational relay.

All accessories are sold separately.

PIR6WB-1PS
Subminiature Electromagnetic and Solid State Modules

Electromagnetic Relays

Featuring **Electromagnetic** relay RM699BV / **6A**; 250VAC / 24VDC

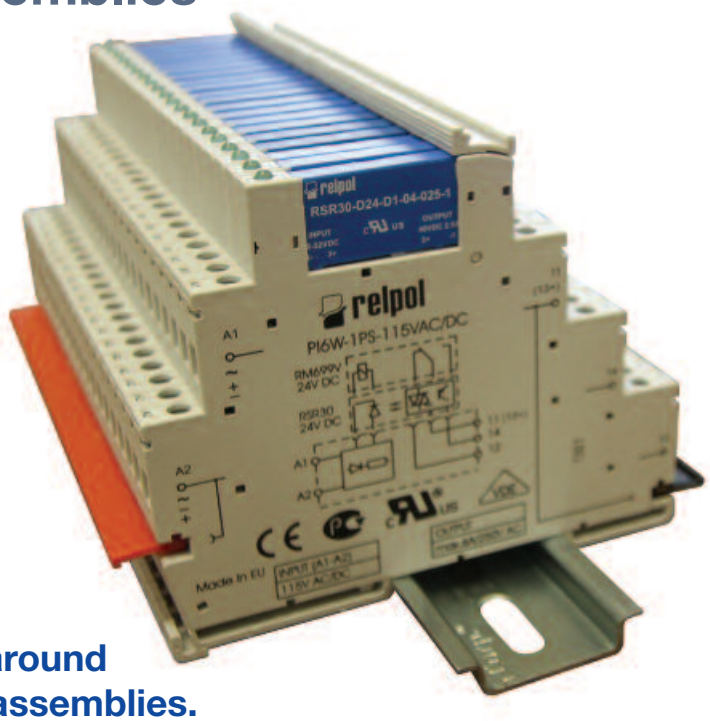
Part Number	Rated input voltage U_n	Power of input circuit	Socket code	Operational relay code	Rated voltage of operational relay U_S
PIR6WB-1PS-6VDC-R	6 V DC	0.3 W	PI6WB-1PS-6VDC	RM699BV-3011-85-1005	5 V DC
PIR6WB-1PS-12VDC-R	12 V DC	0.2 W	PI6WB-1PS-12/24VDC	RM699BV-3011-85-1012	12 V DC
► **PIR6WB-1PS-24VDC-R**	24 V DC	0.3 W	PI6WB-1PS-12/24VDC	RM699BV-3011-85-1024	24 V DC
PIR6WB-1PS-36VDC-R	36 V DC	0.3 W	PI6WB-1PS-36VDC	RM699BV-3011-85-1024	24 V DC
PIR6WB-1PS-48VDC-R	48 V DC	0.4 W	PI6WB-1PS-48VDC	RM699BV-3011-85-1024	24 V DC
PIR6WB-1PS-60VDC-R	60 V DC	0.5 W	PI6WB-1PS-60VDC	RM699BV-3011-85-1024	24 V DC
► **PIR6WB-1PS-24VAC/DC-R**	24 V AC/DC	0.5 VA / 0.4 W	PI6WB-1PS-24VAC/DC	RM699BV-3011-85-1012	12 V DC
PIR6WB-1PS-42VAC/DC-R	42 V AC/DC	0.5 VA / 0.4 W	PI6WB-1PS-42VAC/DC	RM699BV-3011-85-1024	24 V DC
► **PIR6WB-1PS-115VAC/DC-R**	115 V AC/DC	1.2 VA / 1.2 W	PI6WB-1PS-115VAC/DC	RM699BV-3011-85-1024	24 V DC
PIR6WB-1PS-230VAC/DC-R	230 V AC/DC	1.2 VA / 1.2 W	PI6WB-1PS-230VAC/DC	RM699BV-3011-85-1048	48 V DC

Featuring **Electromagnetic** relay RM699BV / **0.05A**; 30VAC / 36VDC. gold plated contacts

Part Number	Rated input voltage U_n	Power of input circuit	Socket code	Operational relay code	Rated voltage of operational relay U_S
PIR6WB-1PS-6VDC-R01	6 V DC	0.3 W	PI6WB-1PS-6VDC	RM699BV-3011-85-1005	5 V DC
PIR6WB-1PS-12VDC-R01	12 V DC	0.2 W	PI6WB-1PS-12/24VDC	RM699BV-3011-85-1012	12 V DC
PIR6WB-1PS-24VDC-R01	24 V DC	0.3 W	PI6WB-1PS-12/24VDC	RM699BV-3011-85-1024	24 V DC
PIR6WB-1PS-36VDC-R01	36 V DC	0.3 W	PI6WB-1PS-36VDC	RM699BV-3011-85-1024	24 V DC
PIR6WB-1PS-48VDC-R01	48 V DC	0.4 W	PI6WB-1PS-48VDC	RM699BV-3011-85-1024	24 V DC
PIR6WB-1PS-60VDC-R01	60 V DC	0.5 W	PI6WB-1PS-60VDC	RM699BV-3011-85-1024	24 V DC
► **PIR6WB-1PS-24VAC/DC-R01**	24 V AC/DC	0.5 VA / 0.4 W	PI6WB-1PS-24VAC/DC	RM699BV-3011-85-1012	12 V DC
PIR6WB-1PS-42VAC/DC-R01	42 V AC/DC	0.5 VA / 0.4 W	PI6WB-1PS-42VAC/DC	RM699BV-3011-85-1024	24 V DC
PIR6WB-1PS-115VAC/DC-R01	115 V AC/DC	1.2 VA / 1.2 W	PI6WB-1PS-115VAC/DC	RM699BV-3011-85-1024	24 V DC
PIR6WB-1PS-230VAC/DC-R01	230 V AC/DC	1.2 VA / 1.2 W	PI6WB-1PS-230VAC/DC	RM699BV-3011-85-1048	48 V DC

The rated input voltage of the operational relay U_S not always complies with the rated input voltage U_n (which is important on ordering operational relays for sockets). For versions of the input voltage U_n = 230 V AC/DC keep the distance between the mounting relays min. 5 mm under maximum load and at continuous operation.

Altech Custom Assemblies



Altech provides quick turnaround and competitive prices on assemblies.

For complete assemblies contact Altech.

► **BOLD** - **Regular stocked items.**

Solid State Relays

Featuring **Solid State Triac** (T) relay RSR30 / **2A**; 240VAC output

Part Number	Rated input voltage U_n	Power of input circuit	Socket code	Operational relay code	Rated voltage of operational relay U_S
PIR6WB-1PS-6VDC-T	6 V DC	0.2 W	PI6WB-1PS-6VDC	RSR30-D05-A1-24-020-1	5 V DC
PIR6WB-1PS-12VDC-T	12 V DC	0.2 W	PI6WB-1PS-12/24VDC	RSR30-D12-A1-24-020-1	12 V DC
PIR6WB-1PS-24VDC-T	24 V DC	0.3 W	PI6WB-1PS-12/24VDC	RSR30-D24-A1-24-020-1	24 V DC
PIR6WB-1PS-36VDC-T	36 V DC	0.3 W	PI6WB-1PS-36VDC	RSR30-D24-A1-24-020-1	24 V DC
PIR6WB-1PS-48VDC-T	48 V DC	0.4 W	PI6WB-1PS-48VDC	RSR30-D24-A1-24-020-1	24 V DC
PIR6WB-1PS-60VDC-T	60 V DC	0.5 W	PI6WB-1PS-60VDC	RSR30-D24-A1-24-020-1	24 V DC
► **PIR6WB-1PS-24VAC/DC-T**	24 V AC/DC	0.5 VA / 0.4 W	PI6WB-1PS-24VAC/DC	RSR30-D12-A1-24-020-1	12 V DC
PIR6WB-1PS-42VAC/DC-T	42 V AC/DC	0.5 VA / 0.4 W	PI6WB-1PS-42VAC/DC	RSR30-D24-A1-24-020-1	24 V DC
PIR6WB-1PS-115VAC/DC-T	115 V AC/DC	1.0 VA / 1.0 W	PI6WB-1PS-115VAC/DC	RSR30-D24-A1-24-020-1	24 V DC

Featuring **Solid State** transistor (C) relay RSR30 / **1A**; 48VDC output

Part Number	Rated input voltage U_n	Power of input circuit	Socket code	Operational relay code	Rated voltage of operational relay U_S
PIR6WB-1PS-6VDC-C	6 V DC	0.2 W	PI6WB-1PS-6VDC	RSR30-D05-D1-04-025-1	5 V DC
PIR6WB-1PS-12VDC-C	12 V DC	0.2 W	PI6WB-1PS-12/24VDC	RSR30-D12-D1-04-025-1	12 V DC
PIR6WB-1PS-24VDC-C	24 V DC	0.3 W	PI6WB-1PS-12/24VDC	RSR30-D24-D1-04-025-1	24 V DC
PIR6WB-1PS-36VDC-C	36 V DC	0.3 W	PI6WB-1PS-36VDC	RSR30-D24-D1-04-025-1	24 V DC
PIR6WB-1PS-48VDC-C	48 V DC	0.4 W	PI6WB-1PS-48VDC	RSR30-D24-D1-04-025-1	24 V DC
PIR6WB-1PS-60VDC-C	60 V DC	0.5 W	PI6WB-1PS-60VDC	RSR30-D24-D1-04-025-1	24 V DC
► **PIR6WB-1PS-24VAC/DC-C**	24 V AC/DC	0.5 VA / 0.4 W	PI6WB-1PS-24VAC/DC	RSR30-D12-D1-04-025-1	12 V DC
PIR6WB-1PS-42VAC/DC-C	42 V AC/DC	0.5 VA / 0.4 W	PI6WB-1PS-42VAC/DC	RSR30-D24-D1-04-025-1	24 V DC
PIR6WB-1PS-115VAC/DC-C	115 V AC/DC	1.0 VA / 1.0 W	PI6WB-1PS-115VAC/DC	RSR30-D24-D1-04-025-1	24 V DC
PIR6WB-1PS-230VAC/DC-C	230 V AC/DC	1.0 VA / 1.0 W	PI6WB-1PS-230VAC/DC	RSR30-D48-D1-04-025-1	48 V DC

Featuring **Solid State** transistor (O) relay RSR30 / **2A**; 24VDC output

Part Number	Rated input voltage U_n	Power of input circuit	Socket code	Operational relay code	Rated voltage of operational relay U_S
PIR6WB-1PS-6VDC-O	6 V DC	0.2 W	PI6WB-1PS-6VDC	RSR30-D05-D1-02-040-1	5 V DC
PIR6WB-1PS-12VDC-O	12 V DC	0.2 W	PI6WB-1PS-12/24VDC	RSR30-D12-D1-02-040-1	12 V DC
PIR6WB-1PS-24VDC-O	24 V DC	0.3 W	PI6WB-1PS-12/24VDC	RSR30-D24-D1-02-040-1	24 V DC
PIR6WB-1PS-36VDC-O	36 V DC	0.3 W	PI6WB-1PS-36VDC	RSR30-D24-D1-02-040-1	24 V DC
PIR6WB-1PS-48VDC-O	48 V DC	0.4 W	PI6WB-1PS-48VDC	RSR30-D24-D1-02-040-1	24 V DC
PIR6WB-1PS-60VDC-O	60 V DC	0.5 W	PI6WB-1PS-60VDC	RSR30-D24-D1-02-040-1	24 V DC
► **PIR6WB-1PS-24VAC/DC-O**	24 V AC/DC	0.5 VA / 0.4 W	PI6WB-1PS-24VAC/DC	RSR30-D12-D1-02-040-1	12 V DC
PIR6WB-1PS-42VAC/DC-O	42 V AC/DC	0.5 VA / 0.4 W	PI6WB-1PS-42VAC/DC	RSR30-D24-D1-02-040-1	24 V DC
PIR6WB-1PS-115VAC/DC-O	115 V AC/DC	1.0 VA / 1.0 W	PI6WB-1PS-115VAC/DC	RSR30-D24-D1-02-040-1	24 V DC
PIR6WB-1PS-230VAC/DC-O	230 V AC/DC	1.0 VA / 1.0 W	PI6WB-1PS-230VAC/DC	RSR30-D48-D1-02-040-1	48 V DC

It should be noted that the rated input voltage of the operational relay (U_S) is not always the same as the rated input voltage of the relay and socket combination (U_n) (This is important when ordering operational relays for sockets). For versions of the input voltage U_n = 230 V AC/DC keep the distance between the mounting relays min. 5 mm under maximum load and at continuous operation.

► **BOLD** - **Regular stocked items.**