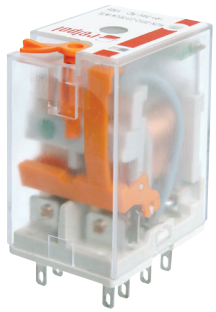
General Purpose Relays R2N/R4N Miniature Power Plug-in Relays



R2N Miniature Blade Type Relay

R4N Miniature Blade Type Relay

The Relpol R2N and R4N General Purpose Miniature Power Relays, typically called "miniature cube type" in the industry, offer high reliability and ruggedness without sacrificing the convenience and economy users have come to expect from relays in this size class. This line of plug-in devices is well suited to any application where a dependable low cost control relay is required.

Versatile design for any application

The R2N miniature power relay is rated at 12 amps resistive @240VAC and is available in a 2PDT (2 form-C contacts) contact arrangement. The R4N relay is rated at 6 amps resistive @240VAC and available in a 4PDT (4 form-C contacts) contact design.

The relay contact materials are cadmium-free and are made of highly reliable silver nickel (AgNi) which can perform to currents as low as 5mA@5V. For lower level signal applications, the R4N is also available with silver nickel gold plated contacts for circuits 2mA.

Each relay style is available in ten coil voltages from 6V DC to 110V DC and 6V AC to 240V AC.

Extremely rugged and reliable

The R2N and R4N relays provides long lasting high quality contact reliability even after millions of operations, due to their hard silver contacts with a mechanical life of 20 million cycles, and high contact switching capacity.

Convenient features

All R Series miniature power relay features a mechanical "flag" and a one piece "push-to--test button/latching" lever. The "push-to--test" button permits a momentary testing of the relay contacts. The "latching" lever allows the relay contacts to remain closed for longer testing periods until released back to normal.

These standard features save time and labor when troubleshooting control circuitry.

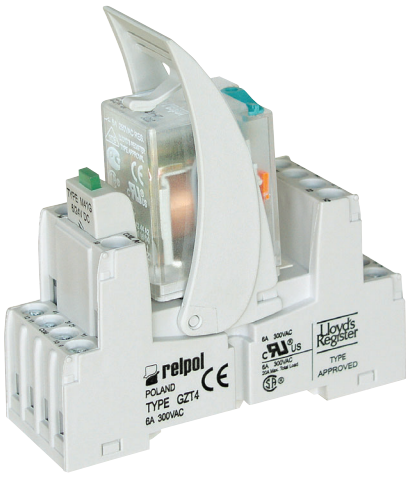
A LED position indicator that shows whether the relay is energized and that the contacts have changed over is available as standard. All relays with DC coils are bi-polar, which means polarity input can either be +/- or -/+ to energize the coil.

DIN-rail mounted relay sockets

The GZT relay sockets offer a unique look in an IEC slim design style. The sockets can be DIN-mounted or screwed directly onto the panel. The socket terminals are fully opened and pin numbers are clearly identified. The relays are easily secured and fastened to the relay sockets. For high vibration applications, optional retainer clips are available to firmly hold the relays to the socket base.

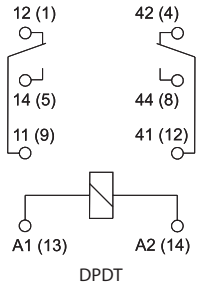
Safety Approvals

The R2N and R4N are UL recognized, CSA certified, VDE certified and CE marked which meets the requirements of all important international approval organizations, making them ideal for use in both domestic and export equipment.

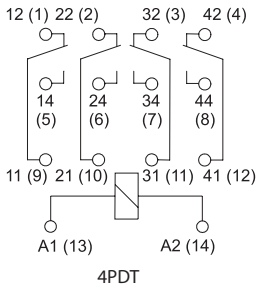


R4N relay and GZT4 socket with GZT4-0040 retainer clip

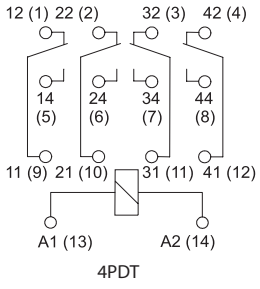
Plug-in Relays 2 Pole (Form C)- Miniature Blade Type ❶

R2N Relay	Description	Position Indication	Diagram (pin side view)	Coil Voltage	Catalog Number	Pkg Qty
	12A DPDT 2 Pole (2 Form C) Single AgNi Contact **Features:** Push-to-test/ Latching Lever as standard Built-in LED Bi-polar input for DC versions	Indicating Flag Electrical LED	 DPDT	6VDC	R2N-2012-23-1006-WTL	10
				12VDC	R2N-2012-23-1012-WTL	
				24VDC	R2N-2012-23-1024-WTL	
				48VDC	R2N-2012-23-1048-WTL	
				110VDC	R2N-2012-23-1110-WTL	
				6VAC	R2N-2012-23-5006-WTL	
				12VAC	R2N-2012-23-5012-WTL	
				24VAC	R2N-2012-23-5024-WTL	
				120VAC	R2N-2012-23-5120-WTL	
				240VAC	R2N-2012-23-5240-WTL	

Plug-in Relays 4 Pole (Form C) - Miniature Blade Type ❶

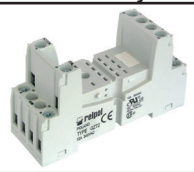
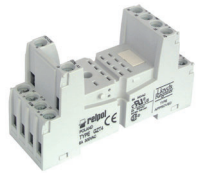
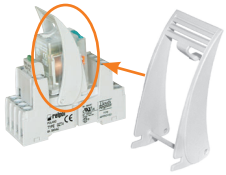
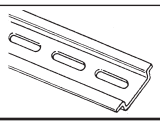
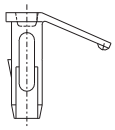
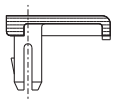
R4N Relay	Description	Position Indication	Diagram (pin side view)	Coil Voltage	Catalog Number	Pkg Qty
	6A 4PDT 4 Pole (4 Form C) AgNi Contacts **Features:** Push-to-test/ Latching Lever as standard Built-in LED Bi-polar input for DC versions	Indicating Flag Electrical LED	 4PDT	6VDC	R4N-2014-23-1006-WTL	10
				12VDC	R4N-2014-23-1012-WTL	
				24VDC	R4N-2014-23-1024-WTL	
				48VDC	R4N-2014-23-1048-WTL	
				110VDC	R4N-2014-23-1110-WTL	
				6VAC	R4N-2014-23-5006-WTL	
				12VAC	R4N-2014-23-5012-WTL	
				24VAC	R4N-2014-23-5024-WTL	
				120VAC	R4N-2014-23-5120-WTL	
				240VAC	R4N-2014-23-5240-WTL	

Plug-in Relays 4 Pole (Form C) - Miniature Blade Type, Low Level Applications ❶

R4N Relay	Description	Position Indication	Diagram (pin side view)	Coil Voltage	Catalog Number	Pkg Qty
	6A 4PDT 4 Pole (4 Form C) AgNi/Au Gold Plated Contacts 2mA 5V **Features:** Push-to-test/ Latching Lever as standard Built-in LED Bi-polar input for DC versions	Indicating Flag Electrical LED	 4PDT	6VDC	R4N-2314-23-1006-WTL	10
				12VDC	R4N-2314-23-1012-WTL	
				24VDC	R4N-2314-23-1024-WTL	
				48VDC	R4N-2314-23-1048-WTL	
				110VDC	R4N-2314-23-1110-WTL	
				6VAC	R4N-2314-23-5006-WTL	
				12VAC	R4N-2314-23-5012-WTL	
				24VAC	R4N-2314-23-5024-WTL	
				120VAC	R4N-2314-23-5120-WTL	
				240VAC	R4N-2314-23-5240-WTL	

❶ The standard features of "Push-to-test/Latching" lever can be easily removed and plugged with an accessory plug or push-to-test only button.
See installation guide and accessory plugs/push-to-test buttons on next page.

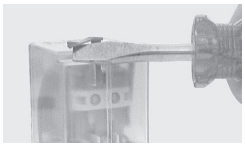
Accessories

Accessory	Description	Catalog Number	Pkg Qty
	Screw Terminal, Relpol Miniature Blade-Type Socket for R2N relays - Panel or DIN-rail mounting - 14 blade miniature socket - 12A, 300V rating cURus, CSA, CE	**GZT2**	10
	Screw Terminal, Relpol Miniature Blade-Type Socket for R4N relays - Panel or DIN-rail mounting - 14 blade miniature socket - 6A, 300V rating cURus, CSA, CE	**GZT4**	10
	Retainer clip for GZT2 & GZT4 Miniature blade relay sockets	**G41052**	25
	Retainer/retractor clip for GZT2 & GZT4 Miniature blade relay sockets	**GZT4-0040S**	10
	Description plate for GZT2 & GZT4 Miniature blade relay sockets	**GZT4-0035**	10
	DIN-rail - 2 meter lengths (6' 6") Top Hat, low profile Top Hat, high profile	**3F** **3AF**	20 12
	P-Type button (push-to-test button) ❶ See application details below. For R2N/R4N Relays with AC Coils (orange button) For R2N/R4N Relays with DC Coils (green button)	 **R4P-0001-A** **R4P-0001-D**	 100
	Relay hole plug. Plugs the hole when the T or P type inserts ❶ are removed. See installation details below. For R2N/R4N Relays with AC Coils (orange button) For R2N/R4N Relays with DC Coils (green button)	 **R4W-0003-A** **R4W-0003-D**	 100

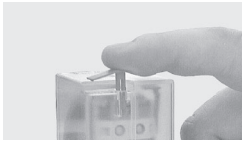
Plug & P-type button (Push-to-test) for R2N and R4N Relays

The R2N and R4N relays are equipped with a one-piece "T" insert that functions either as Push-to-test button or Latching of the relay contacts as standard. The "T" insert can be easily removed and replaced with an accessory Plug for applications that can not include these additional standard features.

The accessory P-Type button (Push-to-test) is recommended for applications that only require manual contact closure for control circuit testing. By manually pressing the P-Type button, the relay contacts change state for as long as the P-Type button is pressed. Contacts return to the initial position as soon as pressure is released from the P-Type button. This operation can be done while the coil is de-energized. The standard "T" insert can be easily removed and replaced with a P-Type button as shown.



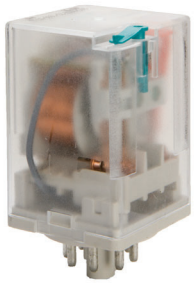
Remove the standard "T" plastic insert with a small screwdriver as shown



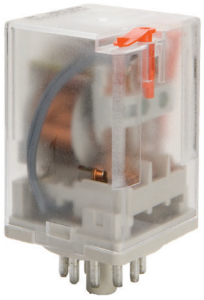
Insert the P-Type button or Plug as shown and snap down into place

❶ Minimum order quantity is one package of 100. Price each x 100 = total price.

R15 Plug-in Power Relays Tube Base Style



R15 2PDT 8-Pin Relay



R15 3PDT 11-Pin Relay

The Relpol R15 General Purpose Plug-in Power Relays offer high reliability and ruggedness in a full featured model design. This line of plug-in devices is well suited for the traditional tube base market. This is widely used in the industry where a dependable low cost control relay is required.

Designed for traditional applications

The R15 plug-in power relay is rated at 10 amps resistive @250VAC and is available in a 2PDT (2 form-C contacts) and 3PDT (3 form-C contacts) contact arrangement. The two pole and three pole relays are housed in traditional 8 pin and 11 pin designs.

The relay contact materials are cadmium-free and are made of highly reliable silver nickel (AgNi) which can perform to currents as low as 5mA@5V. The R15 relays are available in ten coil voltages from 6V DC to 110V DC and 6V AC to 240V AC.

Rugged and reliable

The R15 plug-in power relays provide long lasting high quality contact reliability even after millions of operations, due to their hard silver contacts with a mechanical life of 20 million cycles, and high contact switching capacity.

Convenient features

All R15 plug-in power relays feature a mechanical "flag" and a one piece "push-to-test button/latching" lever. The "push-to-test" button permits a momentary testing of the relay contacts. The "latching" lever allows the relay contacts to remain closed for longer testing periods until released back to normal. These standard features save time and labor when troubleshooting control circuitry.

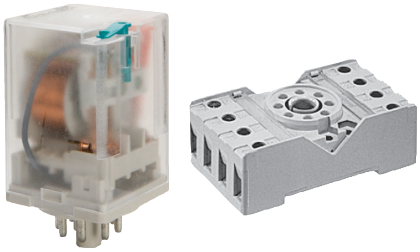
A LED position indicator shows whether the relay is energized and the contacts have changed over is available as standard.

DIN-rail mounted relay sockets

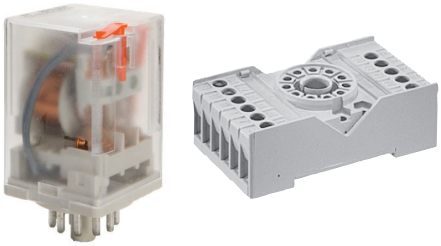
The PZ relay sockets offer a unique look in an IEC slim design style. The sockets can be DIN-mounted or screwed directly onto the panel. The socket terminals are fully opened and pin numbers are clearly identified. The relays are easily secured and fastened to the relay sockets. For high vibration applications, optional retainer clips are available to firmly hold the relays to the socket base.

Safety Approvals

The R15 plug-in power relays are UL recognized, CSA certified, VDE certified and CE marked which meets the requirements of all important international approval organizations, making them ideal for use in both domestic and export equipment.

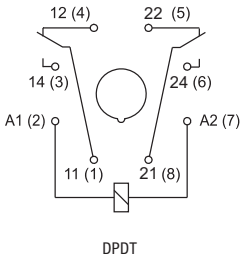


R15 2PDT relay
and PZ8 socket

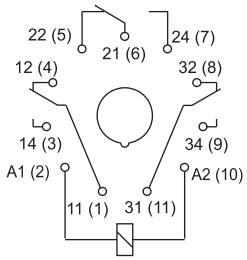


R15 3PDT relay
and PZ11 socket

Plug-in Relays 2 Pole (Form C) - Tube Base 8-Pin Type ❶

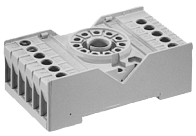
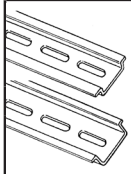
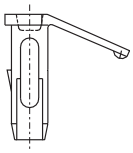
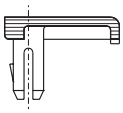
R15 Relay	Description	Position Indication	Diagram (pin side view)	Coil Voltage	Catalog Number	Pkg Qty
	10A DPDT 2 Pole (2 Form C) AgNi Contacts **Features:** Push-to-test/ Latching Lever as standard Built-in LED Bi-polar input for DC versions	Indicating Flag Electrical LED	 DPDT	6VDC	**R15-2012-23-1006-WTL**	**10**
				12VDC	**R15-2012-23-1012-WTL**	
				24VDC	**R15-2012-23-1024-WTL**	
				48VDC	**R15-2012-23-1048-WTL**	
				110VDC	**R15-2012-23-1110-WTL**	
				6VAC	**R15-2012-23-5006-WTL**	
				12VAC	**R15-2012-23-5012-WTL**	
				24VAC	**R15-2012-23-5024-WTL**	
				120VAC	**R15-2012-23-5120-WTL**	
				240VAC	**R15-2012-23-5240-WTL**	

Plug-in Relays 3 Pole (Form C) - Tube Base 11-Pin Type ❶

R15 Relay	Description	Position Indication	Diagram (pin side view)	Coil Voltage	Catalog Number	Pkg Qty
	10A 3PDT 3 Pole (3 Form C) AgNi Contacts **Features:** Push-to-test/ Latching Lever as standard Built-in LED Bi-polar input for DC versions	Indicating Flag Electrical LED	 3PDT	6VDC	**R15-2013-23-1006-WTL**	**10**
				12VDC	**R15-2013-23-1012-WTL**	
				24VDC	**R15-2013-23-1024-WTL**	
				48VDC	**R15-2013-23-1048-WTL**	
				110VDC	**R15-2013-23-1110-WTL**	
				6VAC	**R15-2013-23-5006-WTL**	
				12VAC	**R15-2013-23-5012-WTL**	
				24VAC	**R15-2013-23-5024-WTL**	
				120VAC	**R15-2013-23-5120-WTL**	
				240VAC	**R15-2013-23-5240-WTL**	

❶ The standard features of "Push-to-test/Latching" lever can be easily removed and plugged with an accessory plug or push-to-test button. See installation guide and accessory plugs/push-to-test buttons on page G4:6.

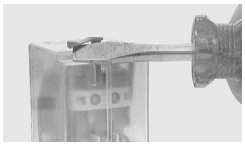
Accessories

Accessory	Description	Catalog Number	Pkg Qty
	Screw Terminal, Relpol Tube Base 8-PIN Socket for R15 relays - Panel or DIN-rail mounting - 10A, 250V rating, UR, CSA	**PZ8**	10
	Screw Terminal, Relpol Tube Base 11-PIN Socket for R15 relays - Panel or DIN-rail mounting - 10A, 250V rating, UR, CSA	**PZ11**	10
	Retainer clip for PZ8 & PZ11 tube base relay sockets	**PZ110031**	25
	DIN-rail - 2 meter lengths (6' 6") Top Hat, low profile Top Hat, high profile	**3F** **3AF**	20 12
	P-Type button (push-to-test button) ❶ See application details below. For R15 Relays with AC Coils (orange button) For R15 Relays with DC Coils (green button)	**R15-M404-A** **R15-M404-D**	100
	Relay hole plug. Plugs the hole when the T or P type inserts ❶ are removed. See installation details below. For R15 Relays with AC Coils (orange button) For R15 Relays with DC Coils (green button)	**R15-M203-A** **R15-M203-D**	100

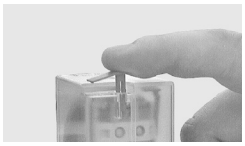
Plug & P-type button (Push-to-test) for R15 Relays

The R15 relays are equipped with a one-piece "T" insert that functions either as Push-to-test button or Latching of the relay contacts as standard. The "T" insert can be easily removed and replaced with an accessory Plug for applications that can not include these additional standard features.

The accessory P-Type button (Push-to-test) is recommended for applications that only require manual contact closure for control circuit testing. By manually pressing the P-Type button, the relay contacts change state for as long as the P-Type button is pressed. Contacts return to the initial position as soon as pressure is released from the P-Type button. This operation can be done while the coil is de-energized. The standard "T" insert can be easily removed and replaced with a P-Type button as shown.



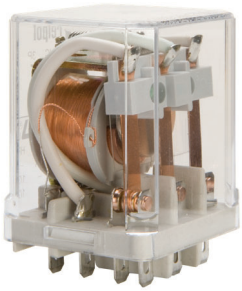
Remove the standard "T" plastic insert with a small screwdriver as shown



Insert the P-Type button or Plug as shown and snap down into place

❶ Minimum order quantity is one package of 100. Price each x 100 = total price.

RUC Plug-in Power Relays Square Base Plug-in



RUC 3PDT Blade Type relay

The Relpol RUC General Purpose Plug-in Power Relays offer high reliability and robustness in a traditional square base design. This line of plug-in devices is well suited for the traditional higher inrush current applications.

Designed for higher amps and inrush applications

The RUC plug-in power relay is rated at 15 amps resistive @250VAC and is available in a 2PDT (2 form-C contacts). It is also available in a 3PDT (3 form-C contacts) contact arrangement rated at 10 amps resistive @250VAC. These relays can handle inrush currents up to 40 amps.

The relay contact materials are made of highly reliable silver tin ($AgSnO_2$) which has a minimum switching capacity of 10mA @10V. The RUC relays are available in ten coil voltages from 6V DC to 110V DC and 6V AC to 240V AC.

Rugged and reliable

The RUC plug-in power relays provide long lasting high quality contact reliability even after millions of operations due to their hard nickel cadmium contacts, with a mechanical life of 20 million cycles, and high contact switching capacity.

Convenient features

The RUC plug-in power relay offers a LED position indicator that shows whether the relay is energized and that the contacts have changed over.

DIN-rail mounted relay sockets

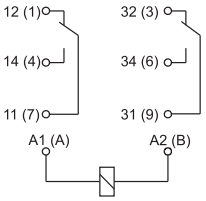
The SB11 relay sockets offer a traditional look in an IEC design. The sockets can be DIN-mounted or screwed directly onto the panel. The terminal pin numbers are clearly identified. The relays are easily secured and fastened to the relay sockets. For high vibration applications, optional retainer clips are available to firmly hold the relays to the socket base.

Safety Approvals

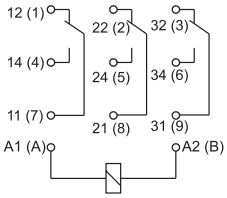
The RUC plug-in power relays are UL recognized, CSA certified and CE marked which meets the requirements of all important international approval organizations, making them ideal for use in both domestic and export equipment.

RUC 3PDT relay and SB11 socket

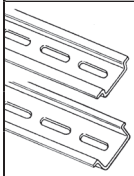
Plug-in Relays 2 Pole (Form C) - Square Base Blade Type ❶

RUC Relay	Description	Position Indication	Diagram (pin side view)	Coil Voltage	Catalog Number	Pkg Qty
	15A DPDT 2 Pole (2 Form C) $AgSnO_2$ Contacts **Features:** Built-in LED Bi-polar input for DC versions	Indicating Flag Electrical LED	 DPDT	6VDC	**RUC-3012-26-1006-L**	10
				12VDC	**RUC-3012-26-1012-L**	
				24VDC	**RUC-3012-26-1024-L**	
				48VDC	**RUC-3012-26-1048-L**	
				110VDC	**RUC-3012-26-1110-L**	
				6VAC	**RUC-3012-26-5006-L**	
				12VAC	**RUC-3012-26-5012-L**	
				24VAC	**RUC-3012-26-5024-L**	
				120VAC	**RUC-3012-26-5120-L**	
				240VAC	**RUC-3012-26-5240-L**	

Plug-in Relays 3 Pole (Form C) - Square Base Blade Type ❶

RUC Relay	Description	Position Indication	Diagram (pin side view)	Coil Voltage	Catalog Number	Pkg Qty
	10A 3PDT 3 Pole (3 Form C) $AgSnO_2$ Contacts **Features:** Built-in LED Bi-polar input for DC versions	Indicating Flag Electrical LED	 3PDT	6VDC	**RUC-3013-26-1006-L**	10
				12VDC	**RUC-3013-26-1012-L**	
				24VDC	**RUC-3013-26-1024-L**	
				48VDC	**RUC-3013-26-1048-L**	
				110VDC	**RUC-3013-26-1110-L**	
				6VAC	**RUC-3013-26-5006-L**	
				12VAC	**RUC-3013-26-5012-L**	
				24VAC	**RUC-3013-26-5024-L**	
				120VAC	**RUC-3013-26-5120-L**	
				240VAC	**RUC-3013-26-5240-L**	

Accessories

Accessory	Description	Catalog Number	Pkg Qty
	Screw Terminal, Square Base Blade type Socket for RUC relays - Panel or DIN-rail mounting ❷ - 15A, 300VAC rating, UR, CSA	**SB11**	10
	Retainer clip for SB11 tube base relay sockets	**MBA**	25
	DIN-rail - 2 meter lengths (6' 6") Top Hat, low profile Top Hat, high profile	 **3F** **3AF**	 20 12

10

❶ Relays can be special ordered with No LED's, contact your Sprecher + Schuh representative.
❷ This product is sourced from a third party manufacturer, not Relpol.

RY2 Plug-in Power Relays Slim Square Base

RY2 2PDT Blade Type Relay

The Relpol RY2 General Purpose Plug-in Power Relay is a traditional square base blade type style designed for higher current application in a small design.

Designed for higher amp applications in a reduced size

The RY2 plug-in power relay is rated at 12 amps resistive @250VAC and is available in a 2PDT (2 form-C contacts). These relays can handle inrush currents up to 20 amps in a small packaged design.

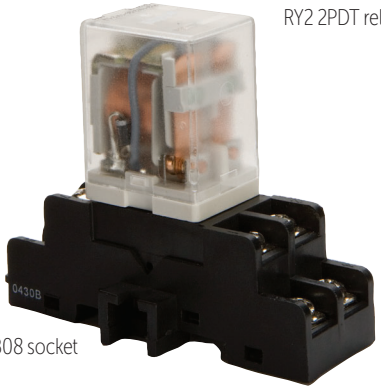
The relay contact materials are made of highly reliable silver nickel which has a minimum switching capacity of 5mA@5V. The RY2 relays are available in ten coil voltages from 6V DC to 110V DC and 6V AC to 240V AC.

Rugged and reliable

With a mechanical life of 20 million cycles, and high contact switching capacity due to their hard nickel cadmium contacts, the RY2 plug-in power relay provides long lasting high quality contact reliability even after millions of operations.

Convenient features

All RY2 plug-in power relays feature a mechanical "flag" indicator and a LED position indicator that shows whether the relay is energized and that the contacts have changed over.



RY2 2PDT relay

SB08 socket

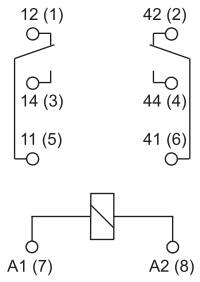
DIN-rail mounted relay sockets

The SB08 relay sockets offer a slim space savings design. The sockets can be DIN--mounted or screwed directly onto the panel. The terminal pin numbers are clearly identified. The relays are easily secured and fastened to the relay sockets. For high vibration applications, optional retainer clips are available to firmly hold the relays to the socket base.

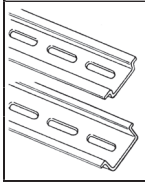
Safety Approvals

The RY2 plug-in power relays are cURus recognized and CE marked which meets the requirements of all important international approval organizations, making them ideal for use in both domestic and export equipment.

Plug-in Relays 2 Pole (Form C) - Slim Blade Type

RY2 Relay	Description	Position Indication	Diagram (pin side view)	Coil Voltage	Catalog Number	Pkg Qty
	12A DPDT 2 Pole (2 Form C) AgNi Contact **Features**: Built-in LED Bi-polar input for DC versions	Indicating Flag Electrical LED	 DPDT	6VDC	**RY2-2012-26-1006-L**	**10**
				12VDC	**RY2-2012-26-1012-L**	
				24VDC	**RY2-2012-26-1024-L**	
				48VDC	**RY2-2012-26-1048-L**	
				110VDC	**RY2-2012-26-1110-L**	
				6VAC	**RY2-2012-26-5006-L**	
				12VAC	**RY2-2012-26-5012-L**	
				24VAC	**RY2-2012-26-5024-L**	
				120VAC	**RY2-2012-26-5120-L**	
				240VAC	**RY2-2012-26-5240-L**	

Accessories

Accessory	Description	Catalog Number	Pkg Qty
	**Screw Terminal, Square Base Blade type Socket for RY2 relays** **- Panel or DIN-rail mounting ❶** **- 15A, 300VAC rating, UR, CSA**	**SB08**	10
	**Retainer clip forGZY2 tube base relay sockets**	**SP-8**	25
	**DIN-rail - 2 meter lengths (6' 6")** **Top Hat, low profile** **Top Hat, high profile**	 **3F** **3AF**	 20 12

❶ This product is sourced from a third party manufacturer, not Relpol.

Interface PCB Relays PI84/PI85

RM84 Interface PCB Relay used in PI84 complete assembly

RM85 Interface PCB Relay used in PI85 complete assembly

The Relpol PI84/PI85 Interface PCB Relays offer a unique design for high current applications. The low current input and power consumption with load capabilities of high current switching is ideal for limited input sources and panel space savings.

A full featured model in one small package

The PI84/PI85 interface PCB relays are offered as a complete package which includes the following five factory installed pieces:

1. PCB (Printed Circuit Board module)
2. Relay socket
3. LED position indicator
4. Retainer clip
5. Description plate

Low input current, high switching capabilities

The PI84 interface PCB relays is rated at 8 amps resistive @250VAC and is available in a 2PDT (2 form-C contacts). The PI85 is rated at 16 amps resistive @250VAC and is available in a SPDT (1 form-C contact). The coil power consumption is approximately 750mA AC or 480mW DC.

Both interface relay styles are available in 24V DC, 24V AC and 120V AC models.

Rugged and reliable

With a mechanical life of 20 million cycles, and high contact switching capacity due to their hard nickel cadmium contacts, the PI84/PI85 interface PCB relays provide long lasting high quality contact reliability even after millions of operations.

DIN-rail mounted relay sockets

The PI84/PI85 interface relay DIN-mounted sockets offer a slim space savings design. The relay socket includes a retainer clip to firmly hold the PCB relay and a description plate as standard.

Safety Approvals

The RM84 & RM85 interface PCB relays are UL recognized, CSA, VDE certified and CE marked which meets the requirements of all important international approval organizations, making them ideal for use in both domestic and export equipment.

PI84 Interface PCB Relay complete assembly

Interface PCB Relays (Form C) - 2 Pole

PI84 PCB Relay	Description	Position Indication	Coil Voltage	Catalog Number	Pkg Qty
	8A DPDT 2 Pole (2 Form C) AgNi Contacts **Includes:** PCB relay, plug-in socket, protective module, retainer clip and description plate	Electrical LED	24VDC	**PI84-024DC-M41G-TS-2012**	10
			24VAC	**PI84-024AC-M91G-TS-2012**	
			120VAC	**PI84-120AC-M93G-TS-2012**	

Interface PCB Relays (Form C) - 1 Pole

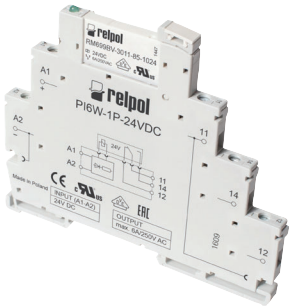
PI85 PCB Relay	Description	Position Indication	Coil Voltage	Catalog Number	Pkg Qty
	16A SPDT 1 Pole (1 Form C) AgNi Contacts **Includes:** PCB relay, plug-in socket, protective module, retainer clip and description plate	Electrical LED	24VDC	**PI85-024DC-M41G-TS-2011**	10
			24VAC	**PI85-024AC-M91G-TS-2011**	
			120VAC	**PI85-120AC-M93G-TS-2011**	

Accessories

RM84/RM85	Description	For use with...	Catalog Number	Pkg Qty
 RM85	**Replacement PCB Relay** Replacement operational relays for PI84/PI85 Interface PCB Relays	PI84-024DC-M41G	**RM84-2012-25-1024**	20
		PI84-024AC-M91G	**RM84-2012-25-5024**	
		PI84-120AC-M93G	**RM84-2012-25-5120**	
		PI85-024DC-M41G	**RM85-2011-25-1024**	20
		PI85-024AC-M91G	**RM85-2011-25-5024**	
		PI85-120AC-M93G	**RM85-2011-25-5120**	

PIR6W Slim Interface Terminal Block Relays

The Relpol PIR6W Slim Interface Terminal Block Relay is ideally compact, designed for a variety of high-density isolation and interposing applications.



PIR6W Slim Interface Relay
Complete Assembly

A full featured model in one small package

The PIR6W slim interface relays are offered as a complete package which includes the following:

- Changeover relay, rated load 6 A / 230 V (ACI)
- Interface Relay socket with built-in LED position indicator
- Description plate

Low input current, high switching capabilities

The PIR6W slim interface relay contacts are rated at 6 amps resistive @230VAC and available in SPDT (1 form - C contact). The minimum contact current capablilties are 100mA at 24V. The coil power cosumption is approximately 0.3...0.8VA AC or 0.3…0.9W DC. The PIR6W interface relays are available in 24V DC, 24V AC/DC and 120V models.

Rugged and reliable

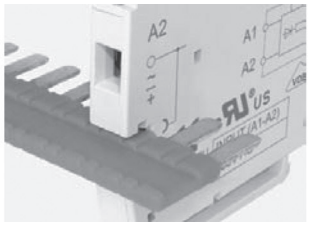
With a mechanical life of 20 million cycles, and high contact switching capacity due to their silver tin oxide ($AgSnO_2$) contacts, the PIR6W interface relays provide long lasting high quality contact reliability even after millions of operations.

DIN-rail mounted

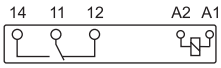
The PIR6W slim interface relays are DIN-rail mountable which can be easily installed along side other control terminal blocks for a space saving design.

Safety approvals

The PIR6W slim interface relays are cU-Rus, VDE and CE marked which meets the requirements of all important international approval organizations, making them ideal for use in both domestic and export equipment.

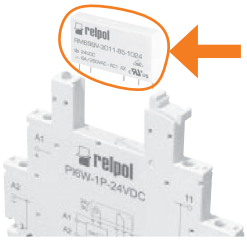


Interface Terminal Block Relays *(1 Form C) - 1 Pole* ❶

PIR6W	Specifications	Input Voltage	Catalog Number	Pkg Qty
	 **6A SPDT** 1 Pole (1 Form C) $AgSnO_2$ Includes: – Change over relay with built-in Green LED indicator	12VDC	**PIR6W-1P-12VDC**	10
		24VDC	**PIR6W-1P-24VDC**	
		24V AC/DC	**PIR6W-1P-24VAC/DC**	
		115V AC/DC	**PIR6W-1P-115VAC/DC**	

* Gray denotes special order.

Accessories

Accessory	Description	For use with...	Catalog Number	Pkg Qty
	**Interface Operational Relay** ❷ Replacement operational relays for PIR6W Interface Terminal Block Relays	PIR6W-1P-12VDC	**RM699BV-3011-85-1012**	20
		PIR6W-1P-24VDC PIR6W-1P-24VAC/DC ❸ PIR6W-1P-115VAC/DC	**RM699BV-3011-85-1024**	
	**20-Way Jumper** Can be cut to required length 36A max per 20-way Jumper Red Black Blue	PIR6W-1P...	**ZG20-1** **ZG20-2** **ZG20-3**	20
	**Replacement Description Plates** Allows user to label individual PIR6W Relays (one included with PIR6W-1P Relays)	PIR6W-1P...	**PI6W-1246**	100

❶ Other input voltages available as special order; contact your Sprecher + Schuh Representative.
❷ It should be noted that rated voltage Un of the input/operational relay coil does not always comply with the rated voltage Un of the interface relay (which is important on ordering operational relays for sockets).
❸ Previously accepted older model RM699V-3011-85-1012 12VDC replacement relay. Now supports a 24VDC relay model RM699BV-3011-85-1024.
❹ In March 2016, Relpol changed the DIN-rail fixing place location as represented in this view.

Technical Information

		R2N	R4N
Contacts			
Contact number & arrangement		DPDT	4PDT
Contact material		AgNi	AgNi, AgNi/Au 5 µm
Max. switching voltage	AC/DC	250 V / 250 V	250 V / 250 V
Min. switching voltage		5 V	5 V
Rated load	AC1	12 A / 250 V AC	6 A / 250 V AC
	AC15	3 A /120 V 1.5 A / 240 V (B300)	1.5 A /120 V 0.75 A / 240 V (C300)
	AC3	370 W (Single-phase motor)	125 W (Single-phase motor)
	DC1	12 A / 24 V DC	6 A / 24 V DC
	DC13	0.22 A / 120 V DC 0.1 A / 250 V (R300)	0.22 A / 120 V DC 0.1 A / 250 V (R300)
Min. switching current		5 mA AgNi	2 mA AgNi/Au 5 µm
Max. inrush current		24 A	12 A
Rated current		12 A	6 A
Max. breaking capacity	AC1	3 000 VA	1 500 VA
Min. breaking capacity		0,3 W AgNi	0,3 W AgNi, 0,1 W AgNi/Au 5 µm
Resistance		≤ 100 mΩ	
Max. operating frequency			
• at rated load	AC1	1 200 cycles/hour	
• no load		18 000 cycles/hour	
General data			
Operating time (typical value)			
Release time (typical value)		AC: 10 ms DC: 13 ms	
Electrical life		AC: 8 ms DC: 3 ms	
• resistive AC1		≥ 10^5 12 A, 250 V AC	≥ 10^5 6 A, 250 V AC
• cosϕ		see graphs on page G67	
Mechanical life (cycles)		≥ 2 x 10^7	
Dimensions (L x W x H)		27,5 x 21,2 x 35,6 mm	
Weight		35 g	
Ambient temperature			
• storing		-40...+85 °C	
• operating		AC: -40...+55 °C DC: -40...+70 °C	
Cover protection category		IP 40	
Shock resistance	(NO/NC)	10 g / 5 g	
Vibration resistance		5 g 10...150 Hz	
Solder bath temperature		max. 270 °C	
Soldering time		max. 5 s	
Insulation			
Insulation category		C250	B250
Insulation rated voltage		250 V AC	
Dielectric strength			
• coil - contact		2 500 V AC	
• contact - contact		1 500 V AC	
• pole - pole		2,500 V AC	2,000 V AC
Contact - coil distance			
• clearance		≥ 2,5 mm	≥ 1,6 mm
• creepage		≥ 4 mm	≥ 3,2 mm
UL/CSA Ratings			
Contact Ratings, General Purpose		10A 250V AC 12A 150V AC	6A 250VAC
DC Rating		10A 28V DC	
UL File Number		E105728	
CSA File Number		LR86957	
Standards		UL 508, CAN/CSA-C22.2 No. 14	

Technical Information

		R2N	R4N
Coil			
Rated voltage	50/60 Hz AC	6...240 V	
Contact material	DC	6...110 V	
Must release voltage		AC: ≥ 0,2 U_n DC: ≥ 0,1 U_n	
Operating range of supply voltage		see tables below	
Rated power consumption	AC	1,6 VA	
	DC	0,9 W	

Coil Data - AC 50/60 Hz voltage version

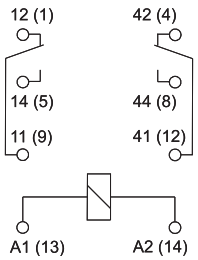
Coil Code	Rated Voltage V AC	Coil Resistence (±10%) at 20 °C	Coil Operating Range V AC	
			min. (at 20 °C)	max. (at 55 °C)
5006	6	9,8	4,8	6,6
5012	12	39,5	9,6	13,2
2024	24	158,0	19,2	26,4
5120	120	3 770,0	96,0	132,0
5240	240	16 800,0	192,0	264,0

Coil Data - DC voltage version

Coil Code	Rated Voltage V DC	Coil Resistence (±10%) at 20 °C	Coil Operating Range V DC	
			min. (at 20 °C)	max. (at 55 °C)
1006	6	40	4,8	6,6
1012	12	160	9,6	13,2
1024	24	640	19,2	26,4
1048	48	2600	38,4	52,8
1110	110	13 600	88,0	121,0

R2N Connections Diagram

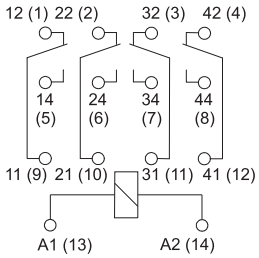
(pin side view)



DPDT

R4N-2014 Connections Diagram

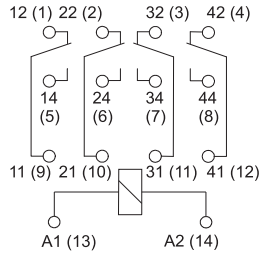
(pin side view)



4PDT

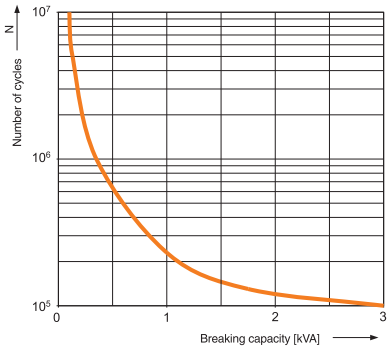
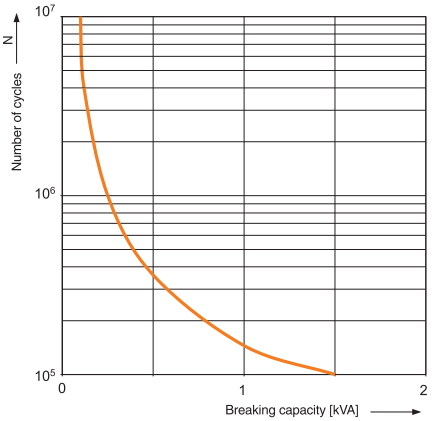
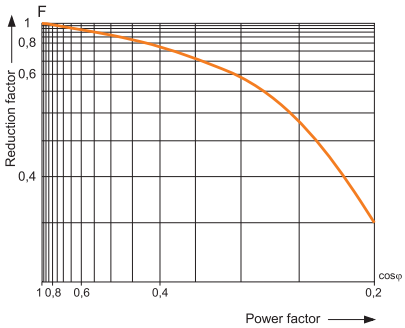
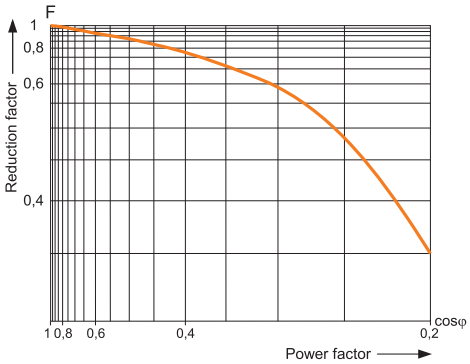
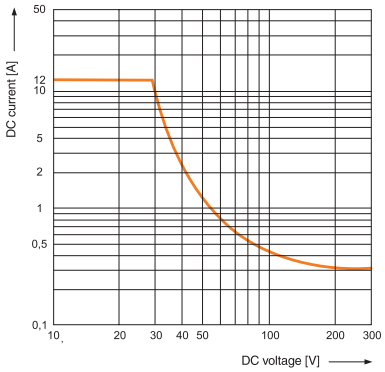
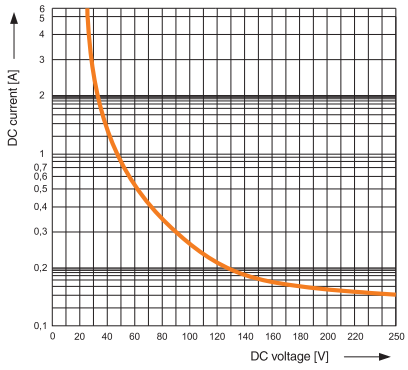
R4N-2314 Connections Diagram

(pin side view)



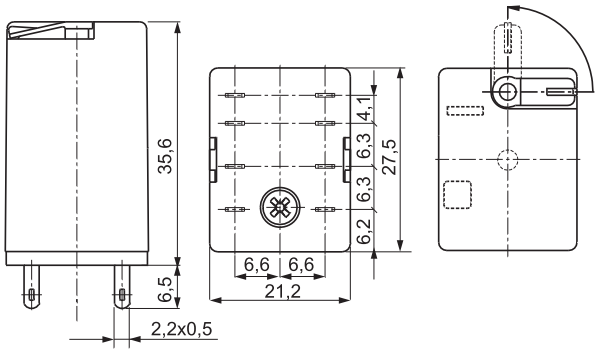
4PDT

Note: Bi-polar input for DC versions

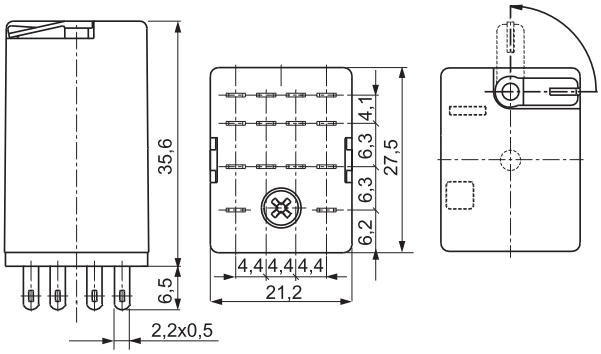
R2N	R4N
Electrical life at AC resistive load	**Electrical life at AC resistive load**
	
Electrical life reduction factor at AC inductive load	**Electrical life reduction factor at AC inductive load**
 $N_{cos\varphi} = N \times F$	 $N_{cos\varphi} = N \times F$
Maximum DC resistive load breaking capacity	**Maximum DC resistive load breaking capacity**
	

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

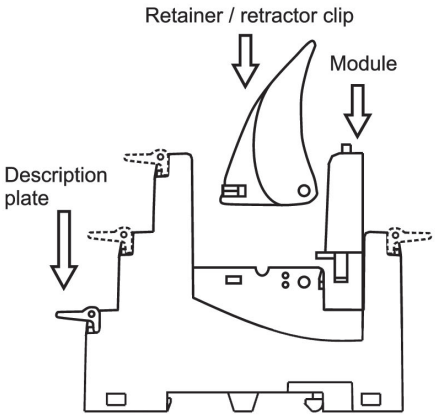
R2N Relay



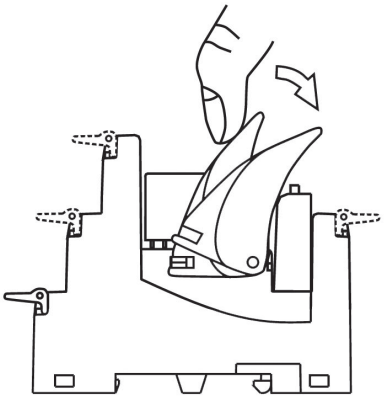
R4N Relay



Retainer/Retractor Clip GZT4-0040S



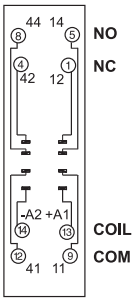
Installation of retainer / retractor clip, module and description plate



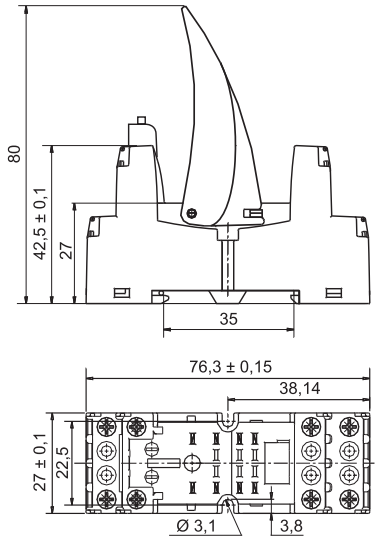
Retainer / retractor clip usage

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

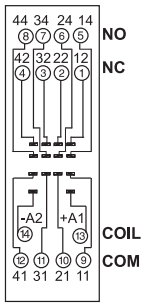
GZT2 Socket



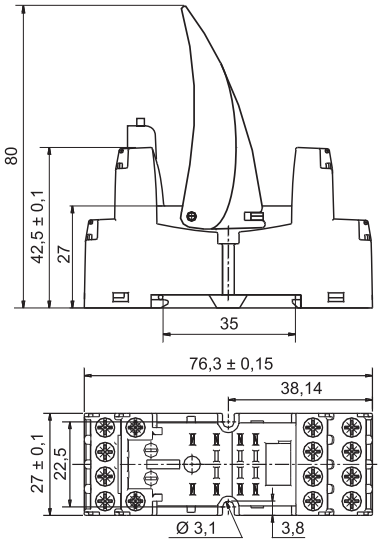
Connections diagram



GZT4 Socket



Connections diagram



G4

Relpol Control Relays

Technical Information

		R15		
Contacts				
Contact number & arrangement		DPDT, 3PDT		
Contact material		AgNi		
Max. switching voltage	AC/DC	250 V		
Min. switching voltage		5 V AgNi		
Rated load	AC1	10 A / 250 V AC		
	AC15	3 A / 120V 1.5 A / 240 V (B300)		
	AC3	370 W (single-phase motor 1/2 HP / 240 V AC UL 508)		
	DC1	10 A / 24 V DC		
	DC13	0.22 A / 250 V 0.1 A / 250 V (R300)		
Min. switching current		5 mA AgNi		
Max. inrush current		20 A		
Rated current		10 A		
Max. breaking capacity	AC1	2 500 VA		
Min. breaking capacity		0,3 W		
Resistance		≤ 100 mΩ		
Max. operating frequency				
• at rated load	AC1	1 200 cycles/hour		
• no load		12 000 cycles/hour		
General data				
Operating time (typical value)		AC: 12 ms DC: 18 ms		
Release time (typical value)		AC: 10 ms DC: 7 ms		
Electrical life				
• resistive AC1		≥ $2x10^5$ 10 A, 250 V AC		
• cosϕ		see graphs on page G76		
Mechanical life (cycles)		≥ 2×10^7		
Dimensions (L x W x H)		35 x 35x 54,4 mm		
Weight		83 g		
Ambient temperature				
• storing		-40...+85 °C		
• operating		AC: -40...+55 °C DC: -40...+70 °C		
Cover protection category		IP 40		
Shock resistance	(NO/NC)	10 g		
Vibration resistance		5 g 10...150 Hz		
Solder bath temperature		max. 270 °C		
Soldering time		max. 5 s		
Insulation				
Insulation category		C250		
Insulation rated voltage		250 V AC		
Dielectric strength				
• coil - contact		2 500 V AC		
• contact - contact		1 500 V AC		
• pole - pole		2 000 V AC		
Contact - coil distance				
• clearance		≥ 3 mm		
• creepage		4,2 mm		
UL/CSA Ratings				
Contact Ratings, General Purpose		10A - 120 250V AC, 240 VAC		
Pilot Duty Ratings		B300		
Contacts	Inductive	Make	Break	HP
	120VAC	30A	3A	1/3
	240VAC	15A	1.5A	1/2
	DC		10A 28V DC	
UL File Number		E105728		
CSA File Number		LR86957		
Standards		UL 508, CAN/CSA-C22.2 No. 14		

Technical Information

	R15
Coil	
Rated voltage	AC: 6...240 V 50/60 Hz DC: 6...110 V
Must release voltage	AC: ≥ 0,15 U_n DC: ≥ 0,1 U_n
Operating range of supply voltage	see coil data tables below
Rated power consumption	AC: 2,8 VA 50 Hz 2,5 VA 60 Hz DC: 1,5 W

Coil Data - AC 50/60 Hz voltage version

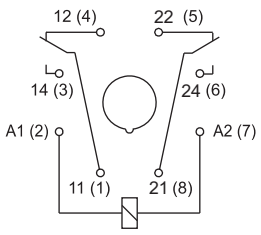
Coil Code	Rated Voltage V AC	Coil Resistence (±10%) at 20 °C Ω	Coil Operating Range V AC	
			min. (at 20 °C)	max. (at 55 °C)
5006	6	4,3	4,8	6,6
5012	12	18,5	9,6	13,2
2024	24	75,0	19,2	26,4
5120	120	1 910,0	96,0	132,0
5240	240	7 760,0	192,0	264,0

Coil Data - DC voltage version

Coil Code	Rated Voltage V DC	Coil Resistence (±10%) at 20 °C Ω	Coil Operating Range V DC	
			min. (at 20 °C)	max. (at 55 °C)
1006	6	28	4,8	6,6
1012	12	110	9,6	13,2
1024	24	430	19,2	26,4
1048	48	1 750	38,4	52,8
1110	110	9 200	88,0	121,0

R15 8-Pin Connection Diagram

(pin side view)



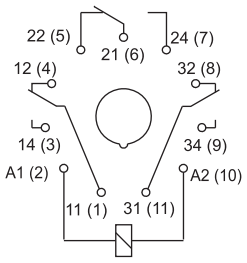
DPDT

Note:

Bi-polar input for DC versions

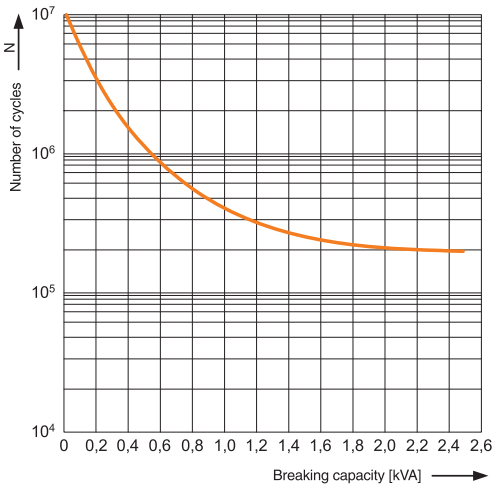
R15 11-Pin Connection Diagram

(pin side view)

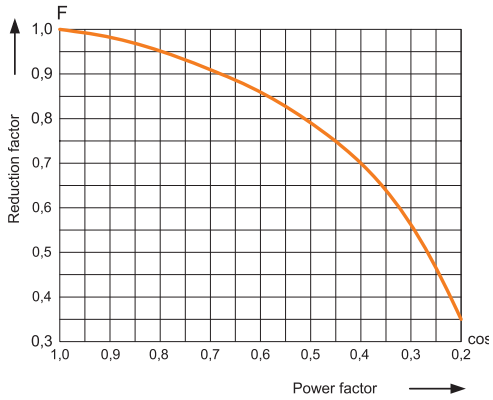


3PDT

Electric life at AC resistive load

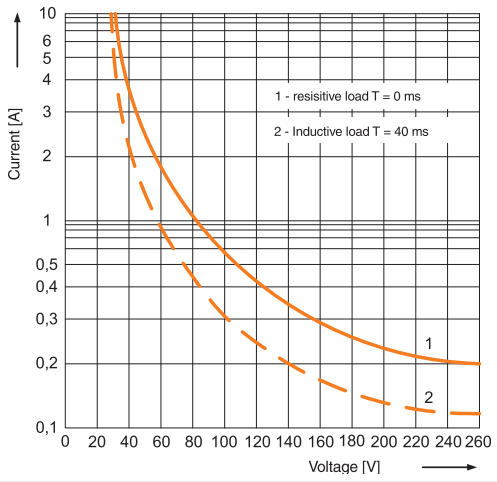


Electrical life reduction factor at AC inductive load



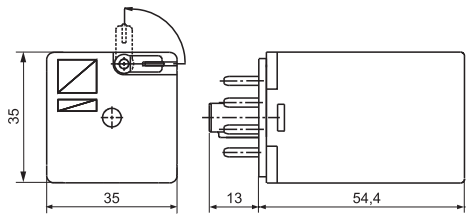
$N_{cos\varphi} = N \times F$

Max. DC load breaking capacity

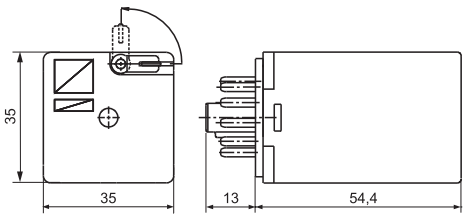


Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

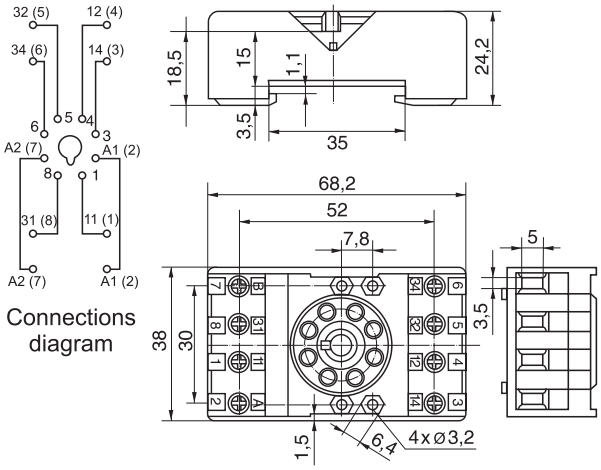
R15 2-Pole Relay



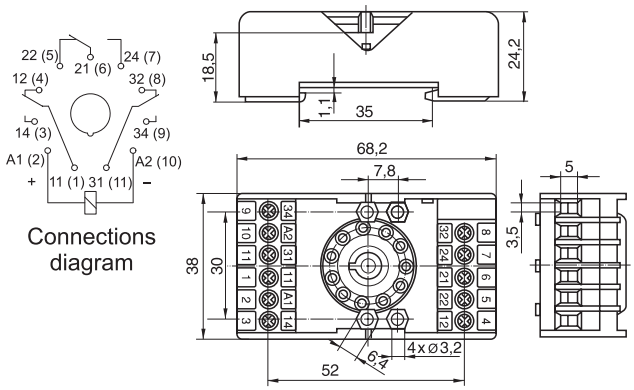
R15 3-Pole Relay



PZ8 Socket



PZ11 Socket



Technical Information

		RUC
Contacts		
Contact number & arrangement		DPDT, 3PDT
Contact material		$AgSnO_2$
Max. switching voltage	AC/DC	250 V
Min. switching voltage		10 V
Rated load	AC1	16 A / 250 V AC
	DC1	16 A / 24 V DC
Min. switching current		10 mA
Max. inrush current		40 A
Rated current		16 A
Max. breaking capacity	AC1	4 000 VA
Min. breaking capacity		1 W
Resistance		≤ 100 mΩ
Max. operating frequency		
• at rated load	AC1	1 200 cycles/hour
• no load		12 000 cycles/hour
General data		
Operating time (typical value)		AC: 12 ms DC: 12 ms
Release time (typical value)		AC: 10 ms DC: 7 ms
Electrical life		
• resistive AC1		≥ 10^5 16 A, 250 V AC
• cosϕ		see graphs on page <?>
Mechanical life (cycles)		≥ 10^7
Dimensions (L x W x H)		38,6 x 36,1 x 45,5 mm
Weight		85 g
Ambient temperature		
• storage		-40...+85 °C
• operating	AC	-40...+55 °C 3 C/O, 3 NO / 16A
		(+70 ºC 2 C/O, 2 NO / 16 A)
	DC	-40...+55 °C 3 C/O, 3 NO / 16A
		(+70 ºC 3 C/O, 3 NO / 10 A; 2 C/O, 2 NO / 16 A)
Cover protection category		IP 40
Shock resistance	(NO/NC)	10 g
Vibration resistance		5 g 10...150 Hz
Solder bath temperature		max. 270 °C
Soldering time		max. 5 s

		RUC		
Insulation				
Insulation category		C250		
Insulation rated voltage		400 V AC		
Dielectric strength				
• coil - contact		2 500 V AC		
• contact - contact		1 500 V AC		
• contact - contact 3 mm		2 500 V AC		
• pole - pole		2 000 V AC		
Contact - coil distance				
• clearance / • creepage		≥ 6 mm / ≥ 8 mm		
UL/CSA Ratings				
Contact Ratings		DPDT	3PDT	
General Purpose Rating		10A 250 V AC 15A 250V (resistive) 15A 150 V AC	10 A 250 V AC	
Motor Load according to UL 508	2 C/O:	1/3 HP 120 V AC single-phase motor 1/2 HP 240 V AC single-phase motor		
	3 C/O:	1/3 HP 120 V AC single-phase 1/2 HP 240 V AC single-phase motor 1/2 HP 240 V AC three-phase motor		
Pilot Duty Ratings		B300		
Contacts	Inductive	Make	Break	HP
	120VAC	30A	3A	1/3
	240VAC	15A	1.5A	1/2
	DC	10A 28V DC		
UL File Number		E105728		
CSA File Number		LR86957		
Standards		UL 508, CAN/CSA-C22.2 No. 14		
Coil				
Rated voltage	50/60 HzAC	6...240 V		
	DC	6...110 V		
Must release voltage		AC: ≥ 0,15 U_n DC: 0,1 U_n		
Operating range of supply voltage		see coil data tables below		
Rated power consumption	AC	2,8 VA 50 Hz 2,5 VA 60 Hz		
	DC	1,5 W / 1,7 W with contact gap ≥ 3 mm		

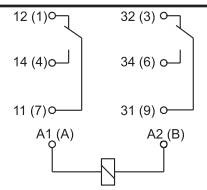
Coil Data - AC 50/60 Hz voltage version

Coil Code	Rated Voltage V AC	Coil Resistence (±10%) at 20 °C Ω	Coil Operating Range V AC	
			min. (at 20 °C)	max. (at 55 °C)
5006	6	4,3	4,8	6,6
5012	12	18,5	9,6	13,2
2024	24	75,0	19,2	26,4
5120	120	1 910	96,0	132,0
5240	240	7 760	192,0	264,0

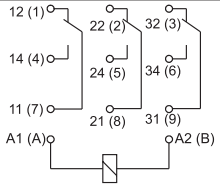
Coil Data - DC voltage version

Coil Code	Rated Voltage V DC	Coil Resistence (±10%) at 20 °C Ω	Coil Operating Range V DC	
			min. (at 20 °C)	max. (at 55 °C)
1006	6	28	4,8	6,6
1012	12	110	9,6	13,2
1024	24	430	19,2	26,4
1048	48	1 750	38,4	52,8
1110	110	9 200	88,0	121,0

RUC DPDT Connection Diagram



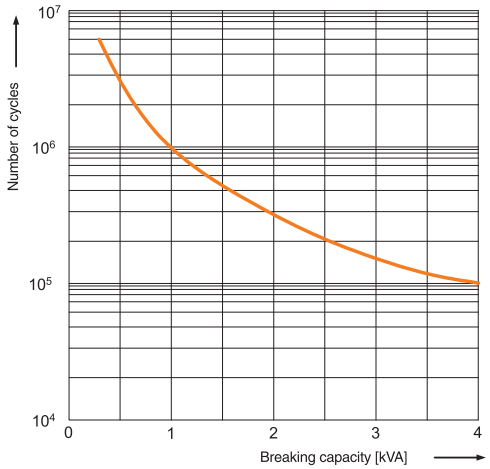
DPDT



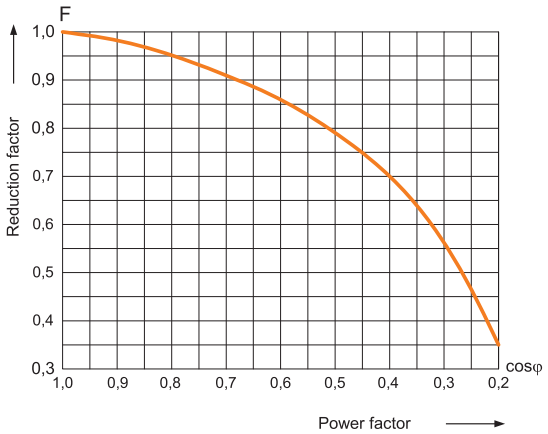
3PDT

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

Electric life at AC resistive load

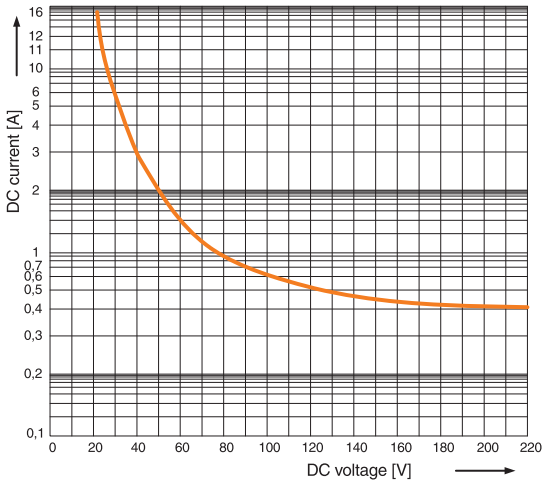


Electrical life reduction factor at AC inductive load

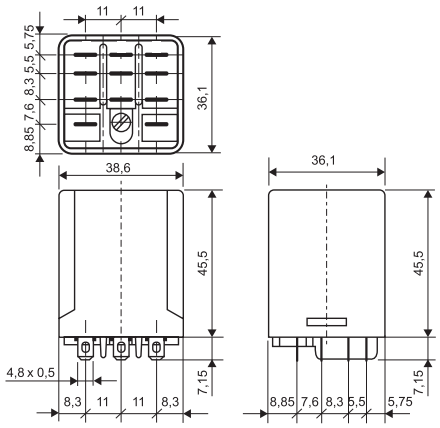


$N_{cos\varphi} = N \times F$

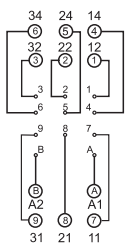
Max. DC load breaking capacity



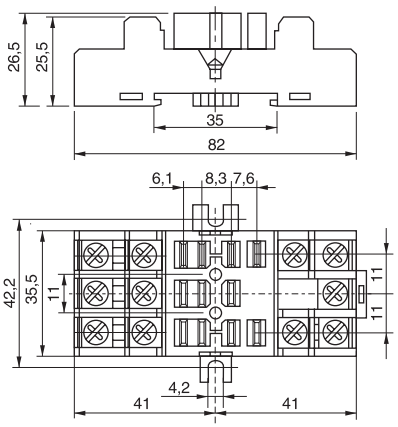
RUC Relay



SB11 Socket



Connections diagram



Technical Information

		RY2		
Contacts				
Contact number & arrangement		DPDT		
Contact material		RY2-1012 AgCdO / RY2-2012 AgNi		
Max. switching voltage	AC/DC	250 V / 250 V		
Min. switching voltage		AgCdO 10 V / AgNi 5 V		
Rated load	AC1	12 A / 250 V AC		
	DC1	12 A / 30 V DC		
Min. switching current		AgCdO 10 mA / AgNi 5 mA		
Max. inrush current		20 A		
Rated current		12 A		
Max. breaking capacity	AC1	3 000 VA		
Min. breaking capacity		1 W		
Resistance		≤ 100 mΩ		
Max. operating frequency				
• at rated load	AC1	1 200 cycles/hour		
• no load		18 000 cycles/hour		
General data				
Operating time (typical value)		15 ms		
Release time (typical value)		10 ms		
Electrical life				
• resistive AC1		≥ 10^5 12 A, 250 V AC		
• cosϕ		see graphs on page G88		
Mechanical life (cycles)		≥ 10^7		
Dimensions (L x W x H)		27,5 x 21,1 x 34,5 mm		
Weight		35 g		
Ambient temperature				
• storing		-40...+70 °C		
• operating		-40...+55 °C		
Cover protection category		IP 40		
Shock resistance	(NO/NC)	10 g		
Vibration resistance		5 g 15...150 Hz		
Solder bath temperature		max. 270 °C		
Soldering time		max. 5 s		
Insulation				
Insulation category		B250		
Insulation rated voltage		250 V AC		
Dielectric strength				
• coil - contact		2 500 V AC		
• contact - contact		1 500 V AC		
• pole - pole		2 500 V AC		
Contact - coil distance				
• clearance		≥ 2,6 mm		
• creepage		4 mm		
UL/CSA Ratings				
Contact Ratings				
General Purpose Rating		10A 250V AC		
Pilot Duty Ratings		B300		
Contacts	Inductive	Make	Break	HP
	120VAC	30A	3A	1/3
	240VAC	15A	1.5A	1/2
	DC		10A 28V DC	
UL File Number		E105728		
Standards		UL 508		

Technical Information

		RY2
Coil		
Rated voltage	50/60 Hz AC	6...240 V
	DC	6...110 V
Must release voltage		AC: ≥ 0,2 U_n DC: 0,1 U_n
Operating range of supply voltage		see coil data tables below
Rated power consumption	AC	1,6 VA
	DC	0,9 W

Coil Data - AC 50/60 Hz voltage version

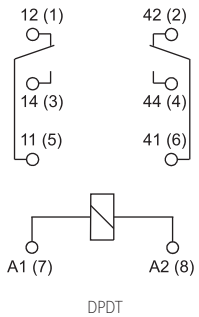
Coil Code	Rated Voltage V AC	Coil Resistence (±10%) at 20 °C Ω	Coil Operating Range V AC	
			min. (at 20 °C)	max. (at 55 °C)
5006	6	9,8	4,8	6,6
5012	12	39,5	9,6	13,2
2024	24	158,0	19,2	26,4
5120	120	3 770,0	96,0	132,0
5240	240	16 800,0	192,0	264,0

Coil Data - DC voltage version

Coil Code	Rated Voltage V DC	Coil Resistence (±10%) at 20 °C Ω	Coil Operating Range V DC	
			min. (at 20 °C)	max. (at 55 °C)
1006	6	40	4,0	5,5
1012	12	160	9,6	13,2
1024	24	640	19,2	26,4
1048	48	2 600	38,4	52,8
1110	110	13 600	88,0	121,0

RY2 Connection Diagram

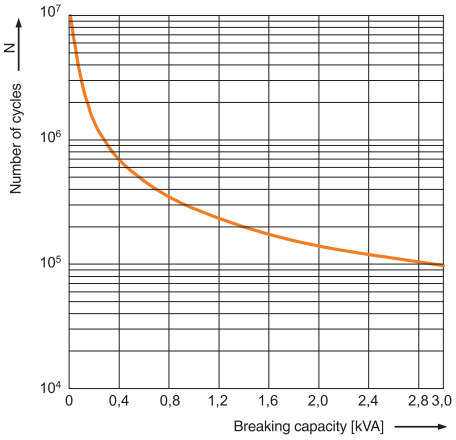
(pin side view)



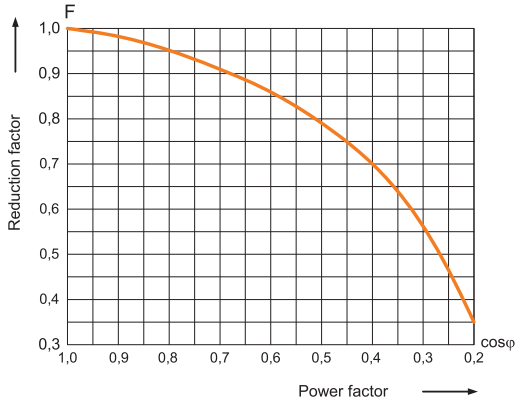
DPDT

Note: Bi-polar input for DC versions

Electric life at AC resistive load



Electrical life reduction factor at AC inductive load

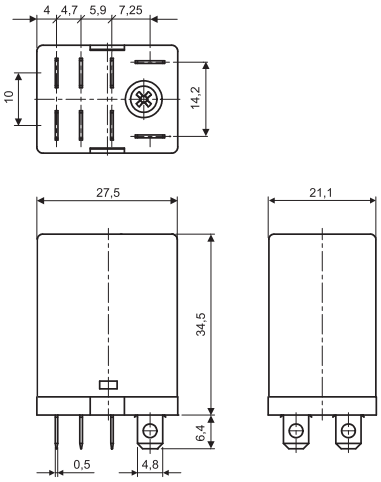


$N_{cos\varphi} = N \times F$

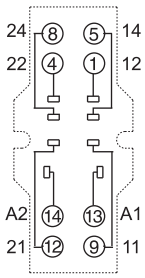
Dimensions

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

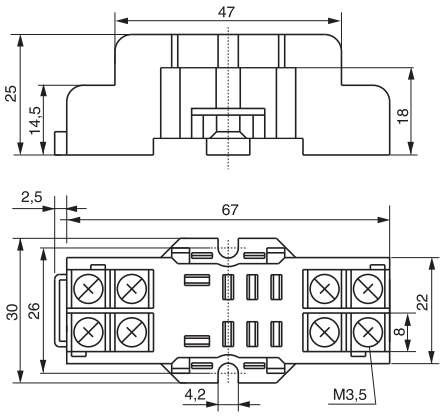
RY2 Relay



SB08 Socket



Connections diagram



Technical Information

		PI84	PI85
Contacts			
Contact number & arrangement		DPDT	SPDT
Contact material		AgNi	
Max. switching voltage	AC/DC	400 V / 300 V	
Min. switching voltage		5 V	
Rated load	AC1	8 A / 250 V AC	16 A / 250 V AC
	AC15	3 A / 120 V AC	3 A / 120 V AC
		1.5 A / 240 V AC (B300)	1.5 A / 240 V AC (B300)
	AC3	550 W (single-phase motor)	750 W (single-phase motor)
	DC1	8 A / 24 V DC	16 A / 24 V DC
	DC13	0.22 A / 120 V DC	0.22 A / 120 V DC
		0.1 A / 250 V DC (R300)	0.1 A / 250 V DC (R300)
Min. switching current		5 mA	
Max. inrush current		15 A	30 A
Rated current		8 A	16 A
Max. breaking capacity	AC1	2 000 VA	4 000 VA
Min. breaking capacity		0,3 W	
Resistance		≤ 100 mΩ	
Max. operating frequency			
• at rated load	AC1	600 cycles/hour	
• no load		172 000 cycles/hour	
General data			
Operating time (typical value)		7 ms	
Release time (typical value)		3 ms	
Electrical life			
• resistive AC1		> 10^5 8 A, 250 V AC	≥ 0.7 x 10^5 16 A, 250 V AC
• cosϕ		see graphs on page 94	
Mechanical life (cycles)		≥ 3 x 10^7	
Dimensions (L x W x H)		75,3 x 15,5 x 67 mm	
Weight		62 g	
Ambient temperature			
• storing		-40...+85 °C	
• operating		AC: -40...+70 °C DC: -40...+85 °C	
Protection category			
• cover		IP 40	
• terminals		IP 20	
Shock resistance		20 g	30 g
Vibration resistance	(NO/NC)	10 g / 5 g	
Insulation			
Insulation category		C250	
Insulation rated voltage		400 V AC	
Dielectric strength			
• coil - contact		5 000 V AC	
• contact - contact		1 000 V AC	
• pole - pole		2 500 V AC	
Contact - coil distance			
• clearance		≥ 10 mm	
• creepage		≥ 10 mm	

Technical Information

		PI84	PI85
Coil			
Rated voltage	50/60 Hz AC	24-120 V	
	DC	24V	
Must release voltage		AC: ≥ 0,15 U_n DC: 0,1 U_n	
Operating range of supply voltage		see Table 1, 2 and Fig. 4, 5	
Rated power consumption	AC	0,75 VA	
	DC	0,4...0,48 W	

Coil Data - AC 50/60 Hz voltage version

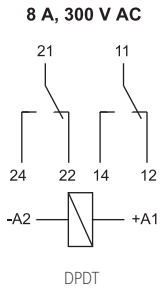
Coil Code	Rated Voltage V AC	Coil Resistence (±10%) at 20 °C	Coil Operating Range V AC	
			min. (at 20 °C)	max. (at 55 °C)
24AC	24	400	19,2	26,4
120AC	120	10 200	96,0	144,0

Coil Data - DC voltage version

Coil Code	Rated Voltage V DC	Coil Resistence (±10%) at 20 °C	Coil Operating Range V DC	
			min. (at 20 °C)	max. (at 55 °C)
24DC	24	1 440	16,8	61,2

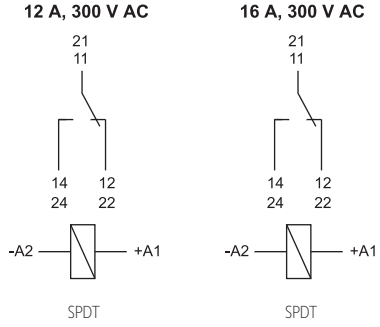
PI84 Connection Diagram

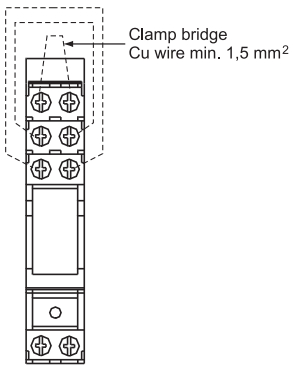
(pin side view)



PI85 Connection Diagram

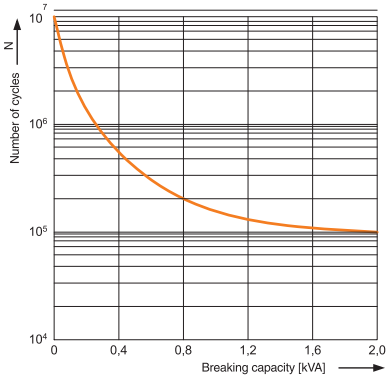
(pin side view)



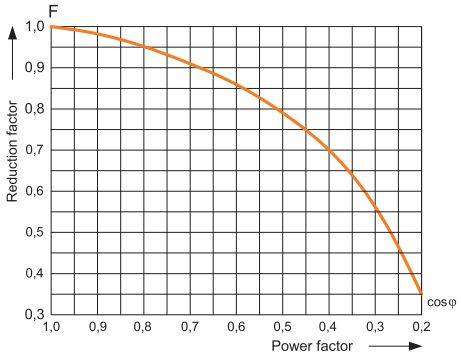


Note: Loads above 12 A require bridging pairs of terminals: 11 with 21, 12 with 22, 14 with 24. Loads up to 12 A do not require bridging of common terminals (such bridges may be fixed, however)

Electrical life at AC resistive load

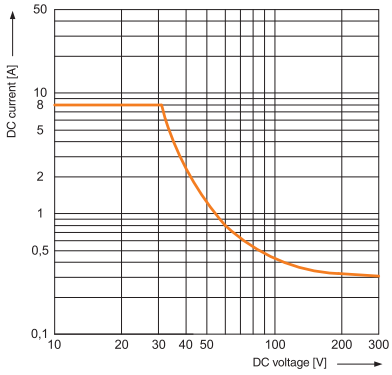


Electrical life reduction factor at AC inductive load

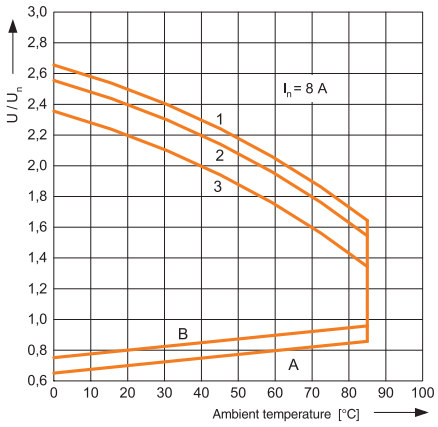


$N_{cos\varphi} = N \times F$

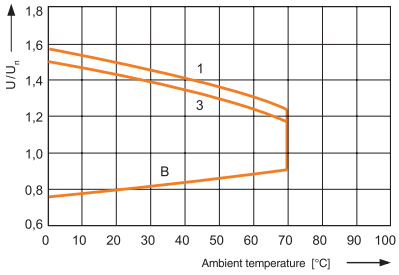
Max. DC resistive load breaking capacity



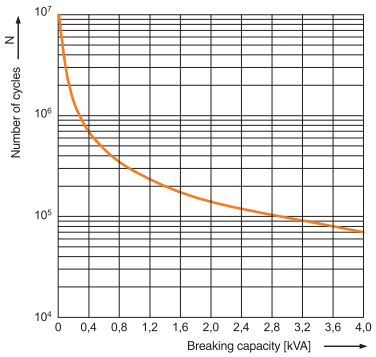
Coil operating range - DC



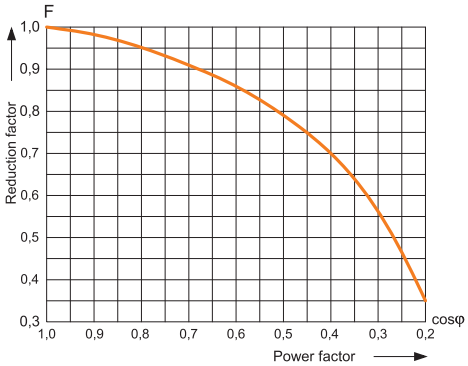
Coil operating range - AC



Electrical life at AC resistive load

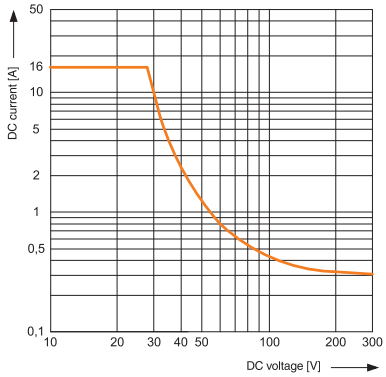


Electrical life reduction factor at AC inductive load

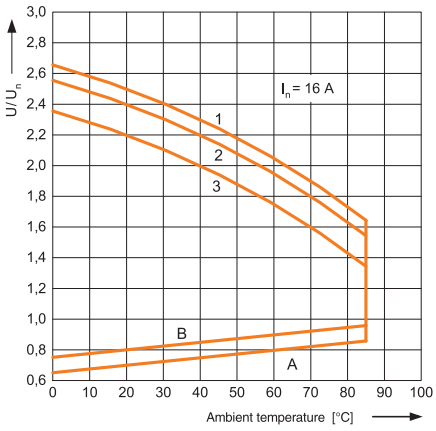


$N_{cos\varphi} = N \times F$

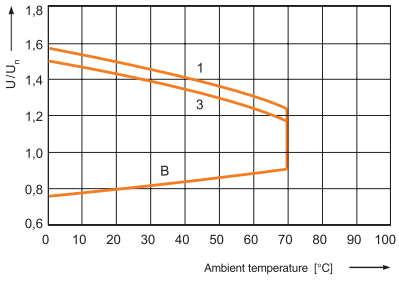
Max. DC resistive load breaking capacity



Coil operating range - DC

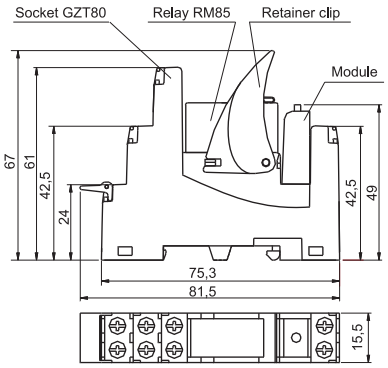


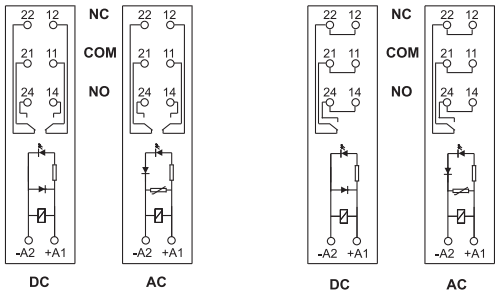
Coil operating range - AC



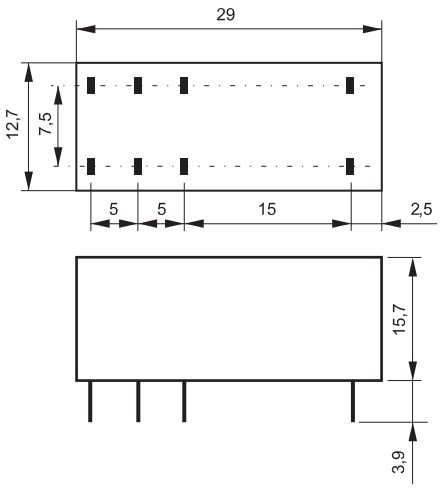
Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

PI84/PI85 Interface Relay and Socket

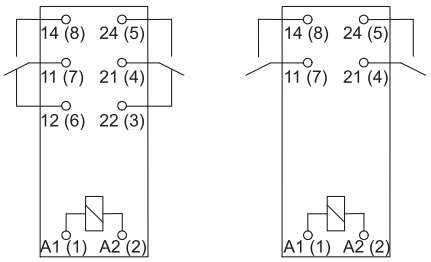




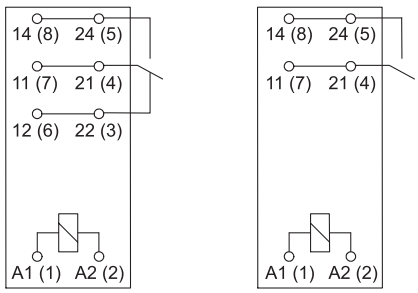
RM84/RM85 Replacement Relay



RM84



RM85



Terminal (pin)	A1(1); A2(2)	22(3); 21(4); 24(5); 12(6); 11(7); 14(8)
mm	ϕ 0,6	0,5 x 0,9
Drilling hole	for relays ϕ 1,3 mm ± 0,1 for sockets ϕ 1,5 mm ± 0,1	

Contacts

Contact number & arrangement		1 C/O
Contact material		**$AgSnO_2$**
Max. switching voltage	AC/DC	$AgSnO_2$: 250 V / 400 V AC/ 125 V DC
Min. switching voltage	AC/DC	$AgSnO_2$: 10 V
Rated load	AC1	$AgSnO_2$: 6 A / 250 V AC
	DC1	$AgSnO_2$: 6 A / 24 V DC
Min. switching current		$AgSnO_2$: 100 mA / 24 V
Max. inrush current (20 ms)		$AgSnO_2$: 10 A
Rated current		6 A
Max. breaking capacity	AC1	$AgSnO_2$: 1 500 VA
Min. breaking capacity		$AgSnO_2$: 1 W
Resistance - initially		$AgSnO_2$: ≤ 100mΩ 100 mA, 24 V
Max. operating frequency		
• at rated load	AC1	360 cycles/hour
• no load		72 000 cycles/hour

Input control circuit

Rated voltage	DC	**12-24 V**
	AC/DC	**24**-**115** V AC:50/60 Hz
Must release voltage		AC:≥ 0,2 U_n
		DC:≥ 0,1 U_n
Operating range of supply voltage		see Table 1
Must operate voltage		AC and DC: ≤ 0,8 U_n
Rated power consumption	AC/DC	0.3...2.1 VA / 0.3...1.0W
	DC	0.3 W

Insulation

Insulation RATED VOLTAGE		250 V AC (PN-EN 60664-1)
Rated surge voltage		4 000 V AC 1.2 / 50 µs
Overvoltage category		III IEC 61810-52 (PN-IEC 664-1)
Insulation pollution degree		3
Dielectric strength		
• input - output		4 000 V AC 50/60 Hz, 1 min., type of insulation: reinforced
• input - output		6 000 V 1,2 / 50 µs, surge voltage
• input - output		2 500 V AC 50/60 Hz 1 min.
• contact clearance		1 000 V AC 50/60 Hz 1 min., type of clearance: micro-disconnection
Input-Output - coil distance		
• clearance		≥ 6 mm
• creepage		≥ 8 mm

General data

Operating time (typical value)		AC: 11 ms DC: 8 ms
Release time (typical value)		AC: 15 ms DC: 10 ms
Electrical life		
• resistive AC1	360 cycles/hour	> 0,6 x 10^5 6 A, 250 V AC
• cos ø = 0,4		> 2 x 10^5 2 A, 250 V AC
Mechanical life (cycles)		> 2 x 10^7
Dimensions (L x W x H)		98.5 x 6.2 x 85.5 mm
Weight		45g
Ambient temperature		
• storage		-40...+70˚C
• operating		-40...+55˚C -40...+60˚C 12,24 V DC
Protection category		IP 20, PEN-EN 60529
Environmental protection		RTI, PEN-EN 116000-3
Shock resistance		10 g
Vibration resistance		5 g 10...500 Hz

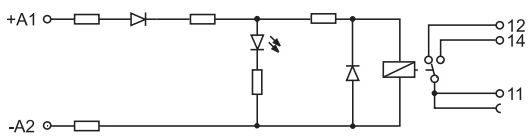
❶ Standard contact materials and coil rated voltages are marked with bold type.

Input Data

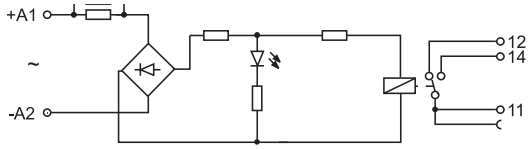
Relay code	Nominal input voltage U_n	Input power control circuit (U_n)	Input - voltage range V	
			min.	**max.**
PIR6W-1P-12VDC	12 V DC	0,3 W	9,6	14,14
PIR6W-1P-24VDC	24 V DC	0,3 W	19,2	28,0
PIR6W-1P-24VAC/DC	24 V AC/DC	0,3 VA / 0,3 W	19,2	26,4
PIR6W-1P-115VAC/DC	115 V DC	0,9 VA / 0,9 W	92,0	130,0

Connection Diagrams

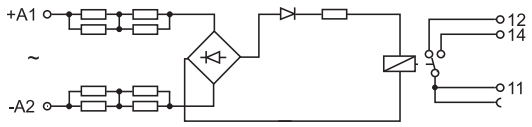
PIR6W-1P-12VDC
PIR6W-1P-24VDC



PIR6W-1P-24VAC/DC

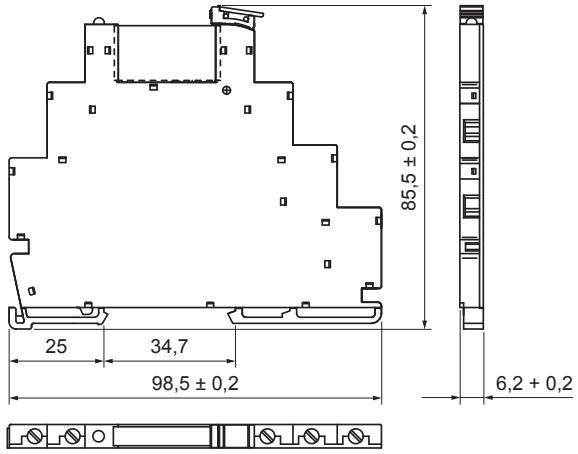


PIR6W-1P-115VAC/DC

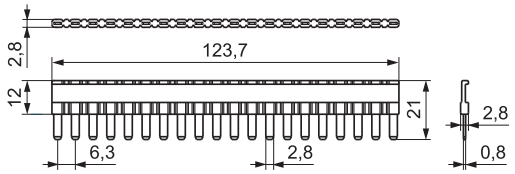


Dimensions

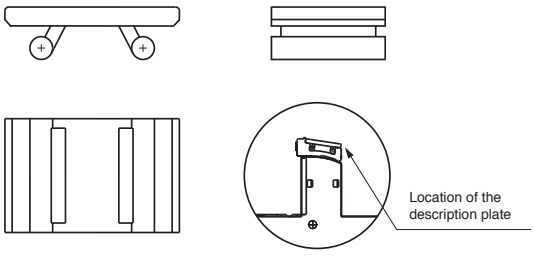
Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes. ❶



Interconnection Strip ZG20



Description Plate PI6W-1246



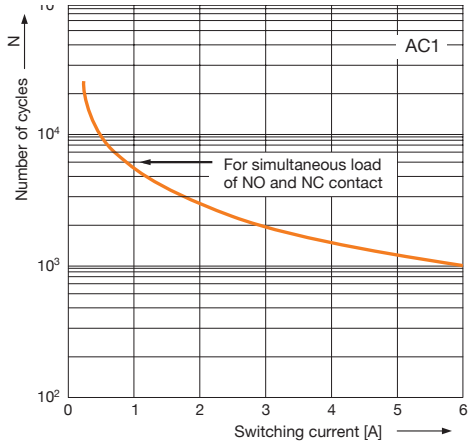
Mounting

Relays **PIR6W** are designed for 35 mm DIN rail mount, EN 50022.

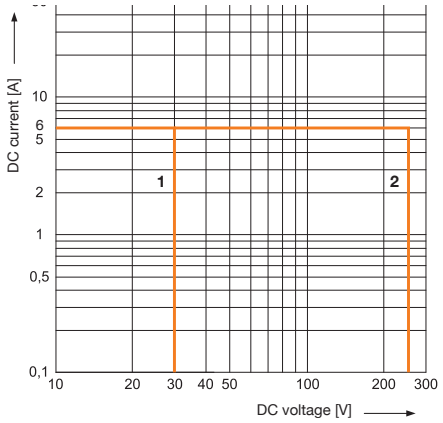
PIR6W are adapted for the co-operation with interconnection strip type **ZG20**. Interconnection strip **ZG20** allows to common bridging outputs or inputs. Maximum current rate is 36 A. Colors of strips: **ZG20-1** red, **ZG20-2** black, **ZG20-3** blue.

❶ In March 2016, Relpol changed the DIN-rail fixing place location as represented in this view.

Electrical life at AC resistive load.
Maximum switching frequency at rated load

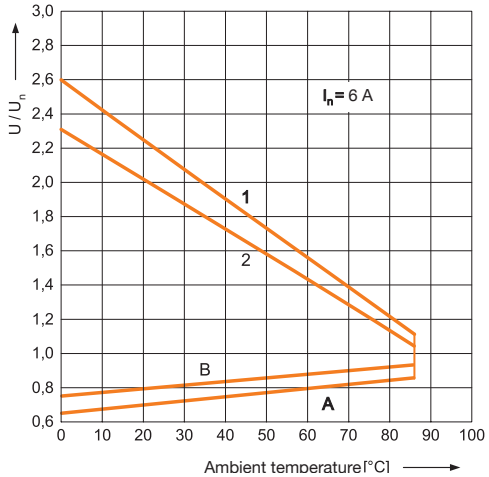


Max. DC resistive load breaking capacity



1 - resistive load DC1
2 - resistive load AC1

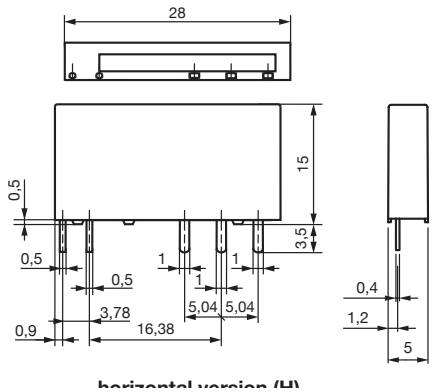
Coil Operating Range - DC



RM699 Interface Operational Relay Dimensions

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.

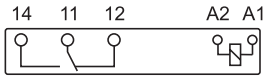
vertical version (V)



horizontal version (H)

RM699 Connections Diagrams (pin side view)

vertical version (V)

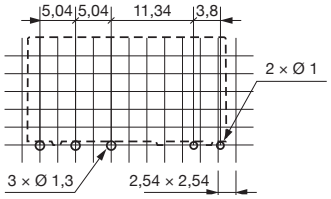


1C/O

RM699 Mounting openings raster (solder side view)

horizontal version (H)

1C/O



Description of Coil Operating Range

A - relations between make voltage and ambient temperature at no load on contacts. Coil temperature and ambient temperature are equal before coil energizing. Make voltage is not higher than the value read on Y axis (multiplication of rated voltage).

B - relations between make voltage and ambient temperature after initial coil heating up with 1,1 Un, at continues load of In on contacts. Make voltage is not higher than the value read on Y axis (multiplication of rated voltage).

1, 2,3 - values on Y axis represent allowed overvoltage on coil at certain ambient temperature and contact load:

1 - no load

2 - rated load