

- Interface relay modules are built as sets of 8 relays type RM83 (RM63 for AC control) placed in sockets soldered in printed circuits. RM83 relays can be replaced by RM85 relays. All terminal points are numbered with polyester tags, fixed thermally and resistant for abrasion
- Module bases are made of plastic materials with increased mechanical resistance, resisted low and high work temperature with very good insulation characteristics
- There is a choice of two plastic material types in standard: PVC and polyamide PA, the second one has lighter parameters and is recommended to use in the most severe environment conditions
- Bases have the adaptors which makes possible the mounting on the typical 35 mm DIN rail mounting, EN 50022. They are also adapted to the mounting on the flat surface by mounting holders

### Input data

iriput uata				
Input voltage	DC	5-6-9-12-18- <b>24</b> -36-48-60-110 V		
	AC/DC	5-9-12 <b>-24</b> -48-60-110 V		
	AC	6-12-24-48-60-110 <b>-220-</b> 240 V		
Coil operating range		0,7-1,1 U <sub>n</sub>		
Relay release voltage		≥ 10% U <sub>n</sub>		
Relay rated power consumption		8 x 0,8 W		
Operating time		10 ms		
Release time		10 ms		
Output data				
Contact number & arrangement		8 x 1C/O		
Max. voltage		250 V AC		
Rated current (resistive load)		8 x 8 A AC		
Max. switching current		8 x 10 A		

# Mechanical life Insulation

Electrical life

Insulation I/O	AC	4 kV 1 min.
Dielectric strength: pole-pole	AC	2 kV 1 min.
Max. switching voltage		250 V AC / 300 V DC

105

3 x 10<sup>7</sup>

### General data

Dimensions (L x W x H)	146 x <b>2</b> x 60 mm
Operating temperature	-25+50 °C

 $\ensuremath{\mathbf{0}}$  Standard coil rated voltages marked with bold type.

Modul	Lenght	Widht	Height	
type	of modul	C - PVC	<b>U</b> - Poliamid PA	of modul
S	146,0±0,5	86,8	77,0	60,0
F	146,0±0,5	125,4	111,0	60,0
G	146,0±0,5	125,4	111,0	60,0
R	146,0±0,5	125,4	111,0	60,0
Н	146,0±0,5	86,8	77,0	60,0

### **Aplications**

Relay modules have been designed as the automatics elements interfacing control circuits with current circuits (which contain executive devices). Use of electromagnetic relays allows the effective separation of galvanic controlling part from the current one. Clamps arrangement on the opposite sides of the module guarantees the proper guide of the wires. The main field of the modules use are the control systems based on PLC controller. Modules can be connected directly to binary outputs. Thank to this fact controller electronics systems are not endangered by the unfavorable effects of the undefined states appearing with devices switching off and on. It has the special importance in case of inductive or capacitive devices. PMI8 module series can be used for the galvanic separation of circuits in automatics systems for current circuits control (for example contactors, electro-valves, fans, engines switching on, or the applications of extreme breakers).

Interface relay modules can co-operate with each type of PLC controller. They are a necessary supplement of automatics control systems. Elastic construction gives the possibility of different project solutions in relation to switching techniques, control versions, (common "+" or "-") and voltage versions even the execution for the individual orders.





### Working plane

Modules work correctly with diversion from the horizontal plane up to 180°

### Connection technical data

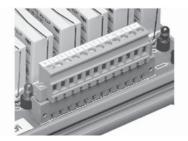
		Connection D	Connection V	Connection Q
Rated voltage	Socket	250	250	250
V	Pin	-	250	250
Rated surge voltage	Socket	4	4	4
kV	Pin	-	4	4
Cross section /	Socket	4/24	2,5/12	2,5/12
Nominal current		2,5/21	1,5/10	1,5/10
mm <sup>2</sup> /A*		1,5/16	0,75-1/8	0,75-1/8
	Pin	-		
Pitch		5,08	5,08	5,08

Type of conducto	or	Wire	Strand	Wire	Strand	Strand
Cross section	mm²	0,2 - 4,0	0,2 - 2,5	0,2 - 2,5	0,2 - 2,5	0,75 - 1,0
Stripping length	mm	8	8	7	7	not required

<sup>\*</sup> up to 50  $^{\circ}$ C

Three types of terminal blocks are available. All connection modes allow full switching capacity of modules.





D type - screw terminals, soldered in PBC

V type - screw terminals, pluged in

**Q type** - self rocking terminals. Recommended only for connection of copper strands. While connecting, terminal cuts off segment of insulation, exposes copper strand and provides firm connection. Saves labour consumption at wiring.

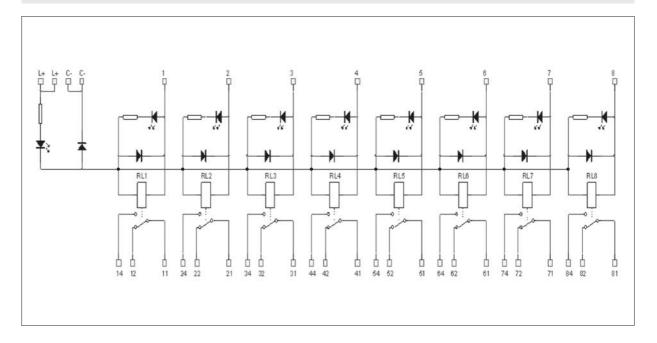




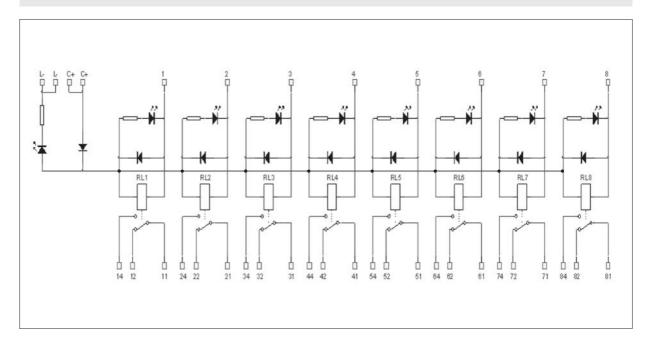
# I/O Relay module, type PMI8-SxxxxDC

This module is designed to separate two-state controller outputs and to increase current load capacity of the optional binary outputs (relay or OC types) which can be found in controllers, regulators and numeric meters. Module is controlled by a voltage signal DC (versions from 5 to 110 VDC).

### Connection diagram - PMI8-SNxxxDC



### Connection diagram - PMI8-SPxxxDC

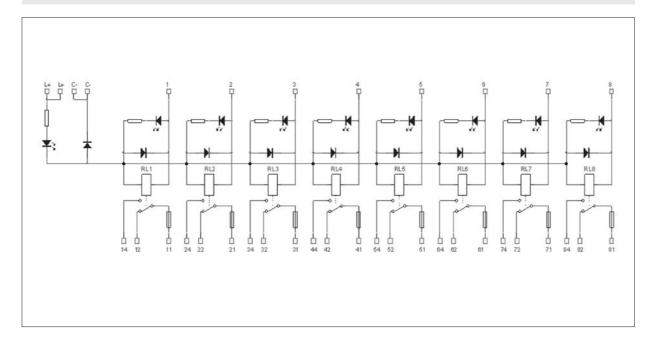


# I/O Relay module, type PMI8-FxxxxDC

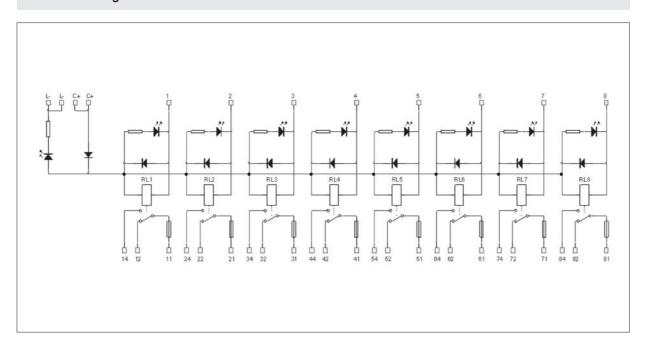
This module is designed to separate two-state controller outputs and to increase current load capacity of the optional binary outputs (relay or OC types) which can be found in controllers, regulators and numeric meters. Load circuit is protected by a fuse (5 x 20 mm) selected for an application.

Module is controlled by a voltage signal DC (versions from 5 to 110 VDC).

### Connection diagram - PMI8-FNxxxDC



### Connection diagram - PMI8-FPxxxDC







### I/O Relay module, type PMI8-GxxxxAC/DC

This module is designed to separate two-state controller outputs and to increase current load capacity of the optional binary outputs (relay or OC types) which can be found in controllers, regulators and numeric meters. Load circuit is protected by a fuse (5 x 20 mm) selected for an application.

Module is controlled by a voltage signal AC or DC (versions from 5 to 115 VAC/ VDC).

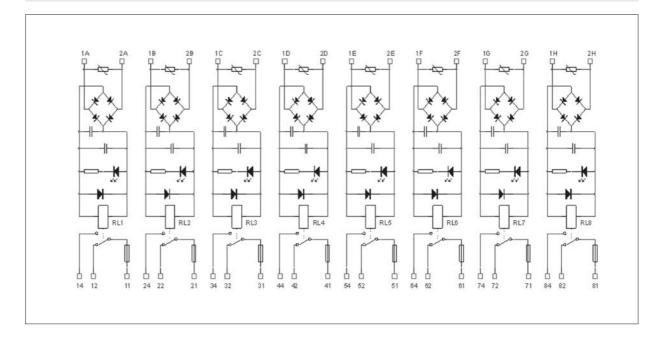
Each module pole is an autonomic circuit and does not depend on the next circuit what makes possible the control of the module part by AC signal and use of the DC signal for the control of another part.

Also the production of versions with particular poles different voltage values is possible.

### Attention:

Second code letter (inputs polarization) - no importance, separate poles.

### Connection diagram - PMI8-GxxxxAC/DC



# I/O Relay module, type PMI8-RxxxxAC

This module is designed to separate two-state controller outputs and to increase current load capacity of the optional binary outputs (relay or OC types) which can be found in controllers, regulators and numeric meters. Input circuit is protected by varistors matching AC control voltage. Load circuit is protected by a fuse (5 x 20 mm) selected for an application.

Module is controlled by a voltage signal AC (versions from 6 to 240 VAC).

Each module pole is an autonomic circuit and does not depend on the next circuit.

Also the production of versions with particular poles different voltage values is possible.

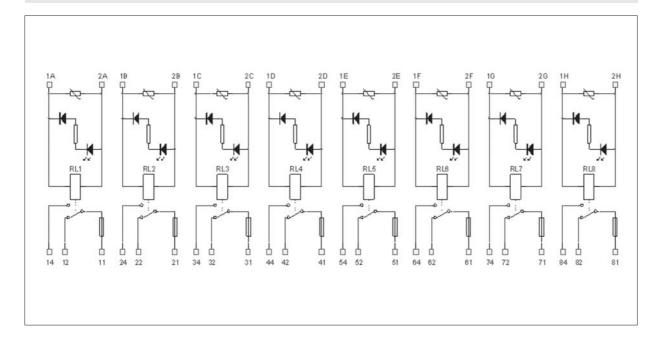
### Attention:

Second code letter (inputs polarization) - no importance, separate poles.





### Connection diagram - PMI8-RxxxxAC



# I/O Relay module, type PMI8-HxxxxAC

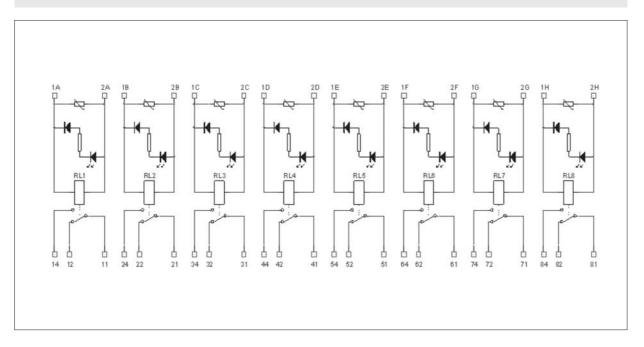
This module is designed to separate two-state controller outputs and to increase current load capacity of the optional binary outputs (relay or OC types) which can be found in controllers, regulators and numeric meters. Input circuit is protected by varistors matching AC control voltage.

Module is controlled by a voltage signal AC (versions from 6 to 240 VAC).

Each module pole is an autonomic circuit and does not depend on the next circuit.

Also the production of versions with particular poles different voltage values is possible.

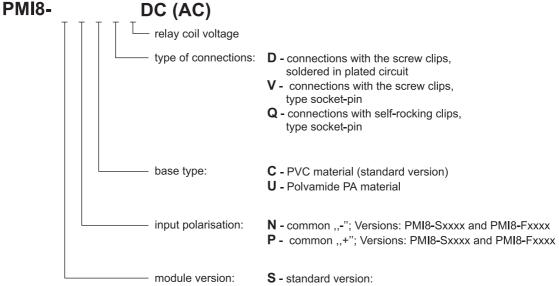
### Connection diagram - PMI8-HxxxxAC







# Relay interface module code system



### Attention:

- dimensions for the version PMI8-xxUxx
- \*\* second letter of the code (inputs polarisation) - is not important, the circuits are separated

- - lenght 146,0 ±0,5 mm, width 86,8 (77\*) mm control DC
- F version with inputs safety devices (fuse): lenght 146,0 ±0,5 mm, width 125,4 (111\*) mm control DC
- G control AC/DC\*\* (relays with coils-DC), version with varistors, rectifiers and with inputs safety devices: lenght 146,0 ±0,5 mm, width 125,4 (111\*) mm
- R control AC\*\* (coil AC), version with varistors and with inputs safety devices: lenght 146,0 ±0,5 mm, width 125,4 (111\*) mm
- H control AC\*\* (coil AC), version with varistors: lenght 146,0 ±0,5 mm, width 86,8 (77\*) mm



