

# Miniature Intermediate Power Relay HY



- 7A switching capabilities (2C, 3C)
- 1.5kV dielectric strength (between coil and contacts)
- Various terminals, test button available
- Different sockets available
- 2 to 4 pole configurations
- Outline dimensions: 28 x 21.5 x 36.0 mm

## Options and Ordering Codes

<b>HY</b>	<b>4</b>	<b>1</b>	<b>PN</b>	<b>24DC</b>
Contact arrangement				Coil voltage
2 Pole CO	<b>2</b>			
3 Pole CO	<b>3</b>			
4 Pole CO	<b>4</b>			
Mounting				
Plug-in		<b>1</b>		
PCB		<b>2</b>		
			<b>PN</b>	Mechanical indicator /test latch LED
			<b>XN</b>	Mechanical indicator
			<b>PX</b>	Test latch and flag
			<b>XX</b>	No indication or test



## Contact Data

Contact arrangement	2C, 3C	4C
Contact resistance	100mΩ (at 1A 6VDC)	
Contact material	Silver Alloy	
Contact Rating	7A 250VAC / 30VDC	5A 250VAC / 30VDC
Max. switching voltage	250VAC / 30VDC	
Max. switching current	7A	5A
Max. switching power	210W 1750VA	150W 1250VA
Mechanical Life	2x10 <sup>7</sup> OPS	
Electrical Life	1x10 <sup>5</sup> OPS	

## Characteristics

Initial Insulation Resistance		1000MΩ (at 500VAC)
Dielectric Strength	Between coil & contacts	1500VAC 1min.
	Between open contacts	1000VAC 1min.
	Between contact sets	1500VAC 1min.
Operate time (at nomi. Volt)		25 ms max.
Release time (at nomi. Volt)		25 ms max.
Shock resistance	Functional	98m/s <sup>2</sup>
	Destructive	980m/s <sup>2</sup>
Vibration resistance		10 to 55Hz 1mm DA
Ambient temperature		-40°C to +70°C
Humidity		95% RH, 40°C
Termination		PCB, Plug-in
Unit Weight		Approx 37g
Construction		Dust protected

## Coil Data

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
5	4	0.5	5.5	27.5 (1 ± 10%)
6	4.8	0.6	6.6	40 (1 ± 10%)
12	9.6	1.2	13.2	160 (1 ± 10%)
24	19.2	2.4	26.4	650 (1 ± 10%)
48	38.4	4.8	52.8	2600 (1 ± 15%)
110	88	11	121	11000 (1 ± 15%)

Nominal Voltage VAC	Pick-up Voltage VAC	Drop-out Voltage VAC	Max. Allowable Voltage VAC	Coil Resistance Ω
6	4.8	1.8	6.6	11.5 (1 ± 10%)
12	9.6	3.6	13.2	46 (1 ± 10%)
24	19.2	7.2	26.4	184 (1 ± 10%)
48	38.4	14.4	52.8	735 (1 ± 10%)
120	96	36	132	4550 (1 ± 15%)
240	176	66	264	14400 (1 ± 15%)

## Coil

Coil power	DC type	0.9W to 1.1W
	AC type	1.2VA to 1.8VA

## Safety Approval Ratings

UL/CUL	2PCO	7A 250VAC / 30VDC
	3PCO	
	4PCO	5A 250VAC / 30VDC

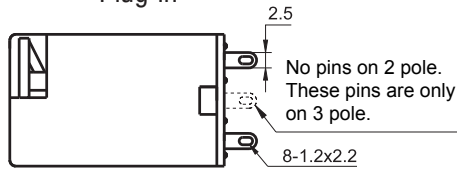
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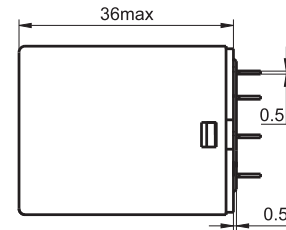
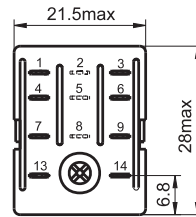
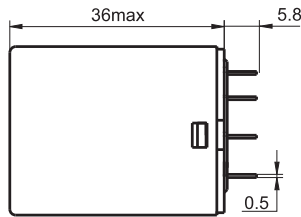
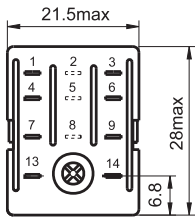
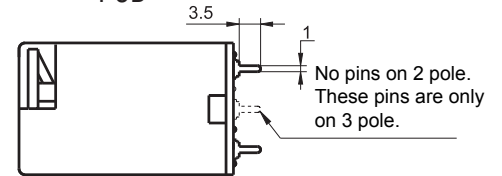
## Outline dimensions (mm)

### 2 and 3 Poles

Plug-in



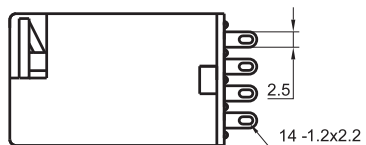
PCB



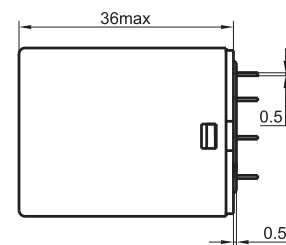
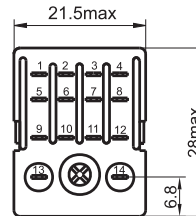
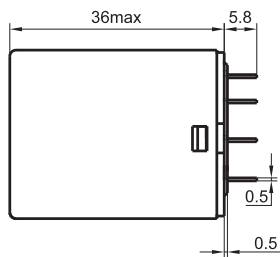
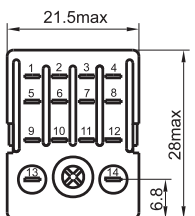
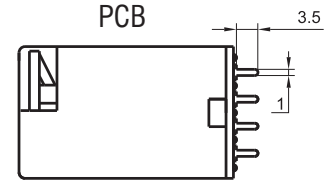
0.5

### 4 Poles

Plug-in

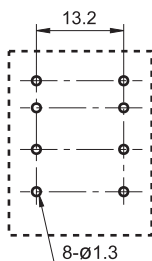


PCB

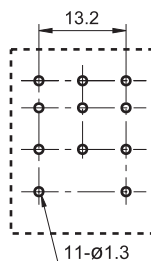


### PCB Layout

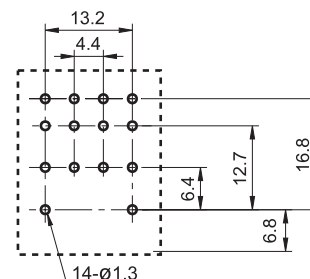
2 Pole CO



3 Pole CO



4 Pole CO

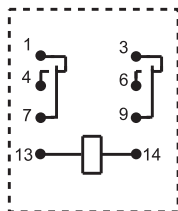


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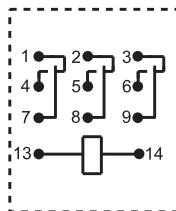


## Wiring diagram

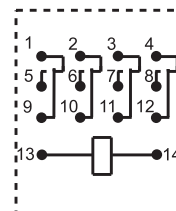
2 Pole CO



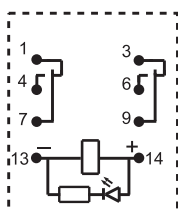
3 Pole CO



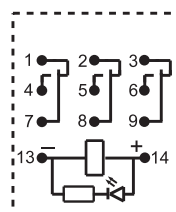
4 Pole CO



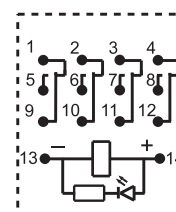
2 Pole CO  
(With LED)



3 Pole CO  
(With LED)

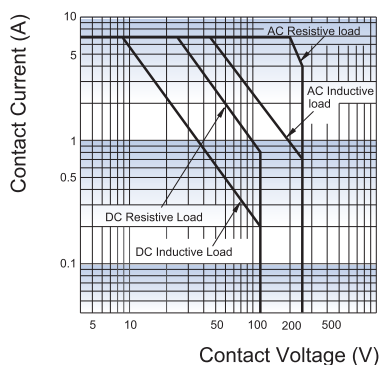


4 Pole CO  
(With LED)



## Characteristics Curve

Maximum Switching Power  
(2, 3 pole CO)



Maximum Switching Power  
(4 pole CO)

