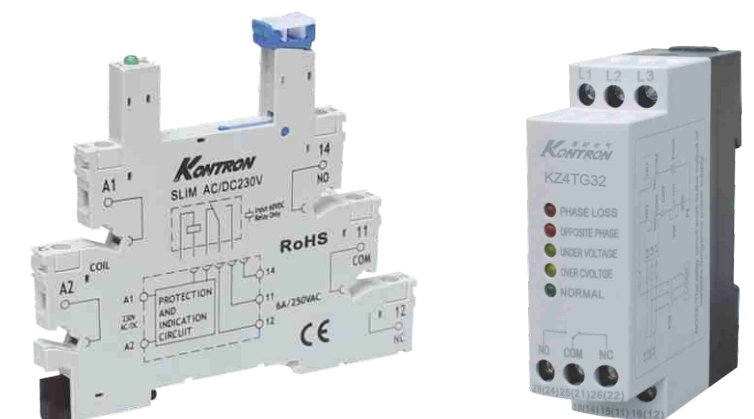




## Product selection guide

Relay 通用继电器  
Phase Monitor Relay 相序监控继电器  
Time relay 时间继电器  
Relay sockets 继电器插座  
Modular Relay 继电器模组  
Solid State Relay 固态继电器



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SHANGHAI KONTRON ELECTRIC CO.,LTD

# About US

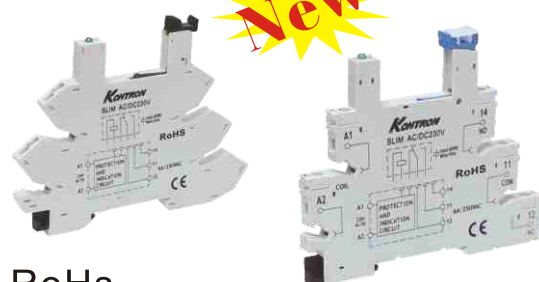
SHANGHAI KONTRON ELECTRIC CO.,LTD. focuses on industrial control and automation control electrical products of development reserch and manufacturing especially specializing in relay,relay socket manufacturing and most of them conforms to CE and Rohs Standard OEM and ODM are warmly welcomed We look forward to cooperation with you.

# Certificates





## Slim Sockets



CE RoHS

### Features

- ◆ The dielectric strength can reach 5000VAC and the insulation resistance is 1000MΩ
- ◆ With finger protection device
- ◆ Ensure secure retention and easy ejection of relays
- ◆ Built-in protection circuit can indicate the power status, protect the circuit and expand the range of relay input voltage
- ◆ Components available: marker, jumper and separator
- ◆ Applicable relay types: SLIM(S)-1/2/3/4/5
- ◆ Environmental friendly product (RoHS compliant)

### Characteristics

Type	Nominal Voltage	Nominal Current	Ambient Temperature	Input Voltage	Relay's Applicable Rated Voltage	Polarity of Input Voltage	Screw Torque	Wire Strip Length
SLIM-1	250VAC	6A	-40~70℃	12 to 24VAC/DC	12 to 24VAC/DC	No requirement	0.5N.m	7mm
SLIM-2	250VAC	6A	-40~70℃	48 to 60VAC/DC	48 to 60VAC/DC	No requirement	0.5N.m	7mm
SLIM-3	250VAC	6A	-40~55℃	110 to 125VAC/DC	60VDC	No requirement	0.5N.m	7mm
SLIM-4	250VAC	6A	-40~55℃	220 to 240VAC/DC	60VDC	No requirement	0.5N.m	7mm
SLIM-5	250VAC	6A	-40~70℃	6 to 24VDC	6 to 24VDC	Requirement	0.5N.m	7mm

### Ordering information

SLIM - 1/2/3/4/5

Type  
Contact arrangement  
1Z:1 form C

Termination & mounting

Slim-P:PCB terminal,PCB mounting

Slim:Screw terminal,DIN rail mounting ,with finger protection device

Slim-S:Spring-loaded terminal,DIN rail mounting ,with finger protection device

### Outline Dimensions,Wiring Diagram and PC Board Layout

Unit:mm

Socket	Outline Dimensions	Wiring Diagram	Components Available
SLIM-S-1/2/3/4/5			mark SLIM jumper SLIM-J1(blue) SLIM-J1R(red) SLIM-J1B(black) separator SLIM-S
SLIM-1/2/3/4/5			mark SLIM jumper SLIM-J1(blue) SLIM-J1R(red) SLIM-J1B(black) separator SLIM-S

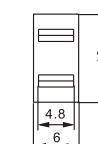
Socket	Outline Dimensions	Wiring Diagram	Components Available
SLIM-P			mark SLIM

PCB terminal,  
PCBI mounting

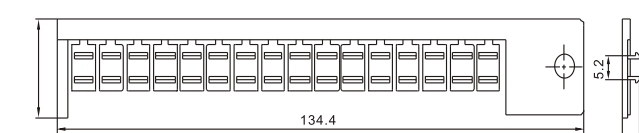
### Dimension of Related Component(Available)

Unit:mm

Marker

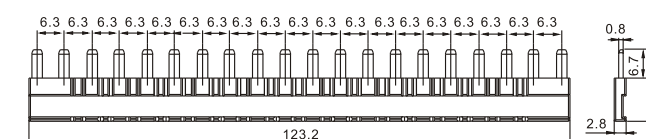


SLIM-M



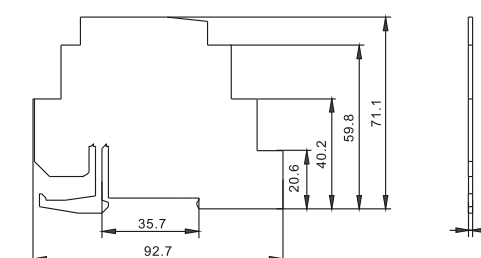
Jumper

SLIM-J1(blue) SLIM-J1R(red) SLIM-J1B(black)








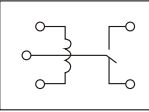
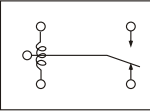
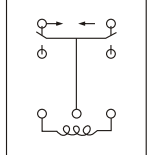
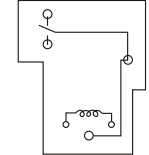
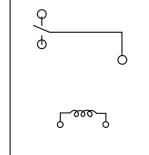
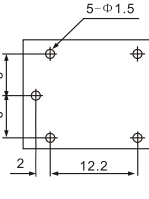
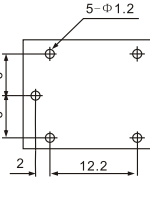
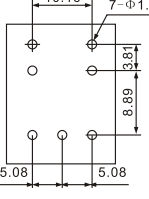
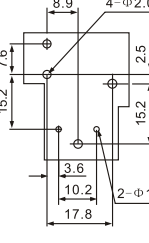
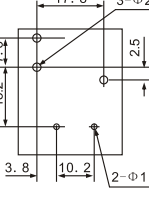
Separator






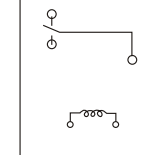
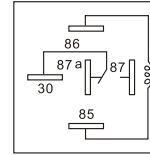
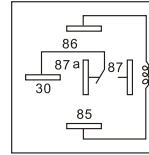
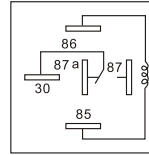
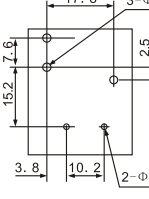
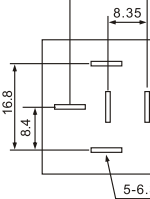
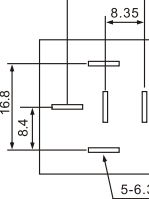
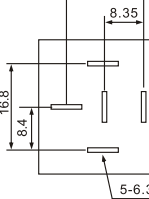
SLIM-S








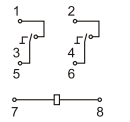
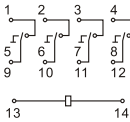
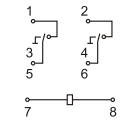
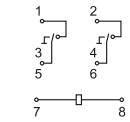
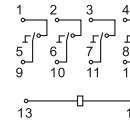
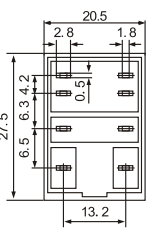
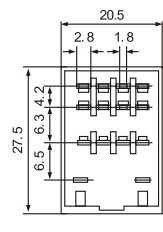
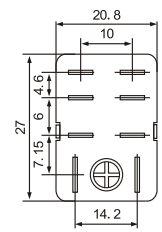
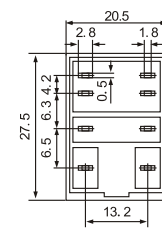
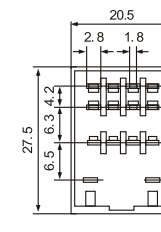
### Things to be noticed when selecting sockets:






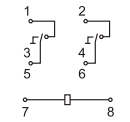
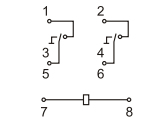
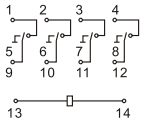
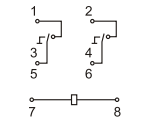
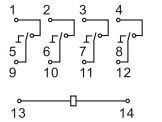
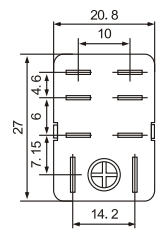
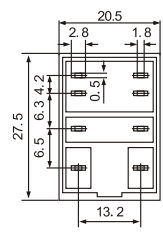
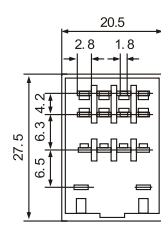
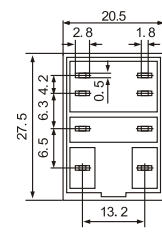
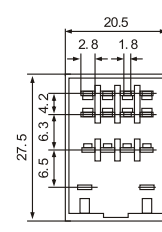
- 1.Please choose suitable relay socket according to the actual mounting environment,relay contact poles and terminal layout.  
If there is and query on selection,please contact Kontron fro the technical service.
- 2.As for related components,they should be selected separately.Please do give clear indication of the types of relay sockets and related components you choose while placing order.





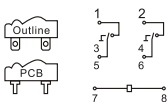
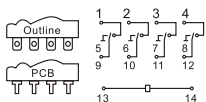
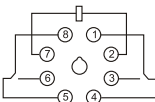
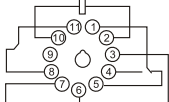
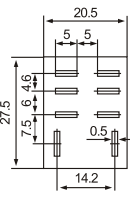
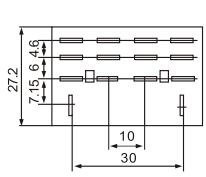
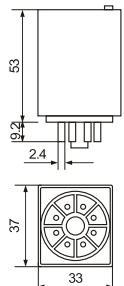
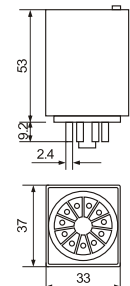
Type	JQC-3F(T73)	JZC-22F(4123)	JZC-7FA(4117)	T90	T91
Appearance					
Dimensions(L×W×H)mm	19.2×15.5×15.2	22.2×16.5×20.5	17.5×15×20	32×27.4×20	32.2×27.6×27.6
Contact form	1c,1a,1b	1c,1a,1b	1c,1a,1b	1c,1a,1b	1c,1a,1b
Rated load	7A 240VAC/28VDC 10A 240VAC/28VDC	15A 120VAC/28VDC 10A 240VAC/28VDC	15A 125VAC/14VDC	30A 240VAC/28VDC 40A 240VAC/28VDC	30A 240VAC/28VDC 40A 240VAC/28VDC
Contact resistance	≤100MΩ	≤100MΩ	≤100MΩ	≤100MΩ	≤100MΩ
Coil voltage	3-48VDC	3-48VDC	6-24VDC	3-110VDC/6-240VAC	3-48VDC
Coil power	0.36W,0.45W	0.36W,0.45W	1.1W	0.93W	0.93W
Coil & contacts	1500VAC/1min	1500VAC/1min	750VAC/1min	2000VAC/1min	2000VAC/1min
Contacts & contacts	1000VAC/1min	1000VAC/1min	750VAC/1min	1500VAC/1min	1500VAC/1min
Insulation resistance	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ
Electrical life	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Mechanical life	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>
Operating temperature	-40~+85℃	-40~+85℃	-40~+125℃	-40~+85℃	-40~+85℃
Weight(g)	9.5g	12g	9g	27.5g	34g
Terminal layout					
Mounting holes (mm)					





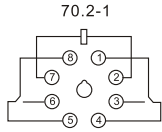
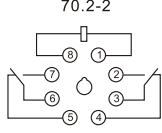
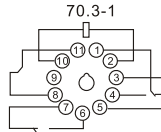
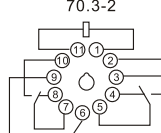
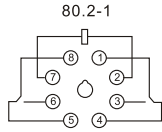
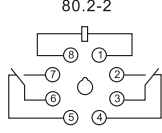
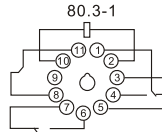
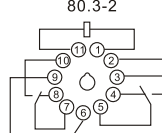
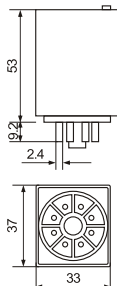
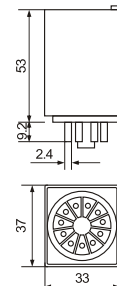
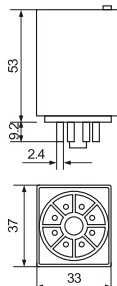
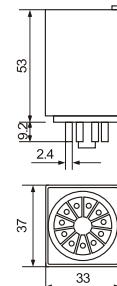
Type	T93	JD19	RL15	RL70	SQ120/180
Appearance					
Dimensions(L×W×H)mm	32.2×27.6×20	26×26×25	28×28×25	29×29×27	70×35×35
Contact form	1c,1a,1b	1c,1a	1c,1a	1c,1a	1a
Rated load	30A/40A/70A 240VAC/28VDC	20A 30A/14VDC	30A 40A/14VDC	70A 14VDC	100A 24VDC
Contact resistance	≤100MΩ	≤100MΩ	≤100MΩ	≤100MΩ	≤100MΩ
Coil voltage	3-48VDC	6,12,24VDC	6,12,24VDC	6,12,24VDC	6,12,24VDC
Coil power	0.93W	1.6W	1.6W	1.6W	1.6W
Coil & contacts	2000VAC/1min	750VAC/1min	750VAC/1min	750VAC/1min	750VAC/1min
Contacts & contacts	1500VAC/1min	750VAC/1min	750VAC/1min	750VAC/1min	750VAC/1min
Insulation resistance	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ
Electrical life	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Mechanical life	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>
Operating temperature	-40~+85℃	-40~+105℃	-40~+105℃	-40~+105℃	-40~+105℃
Weight(g)	34g	31g	35g	40g	80g
Terminal layout					
Mounting holes (mm)					






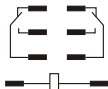
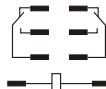



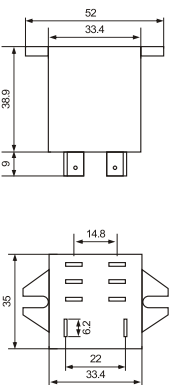
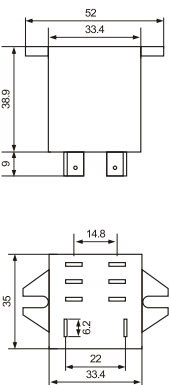
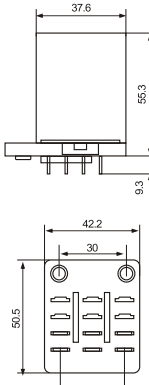
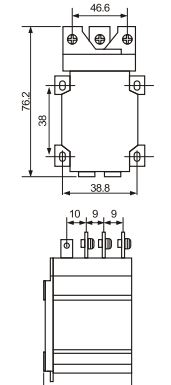
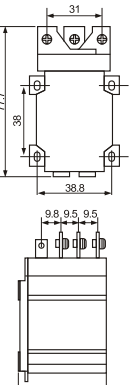








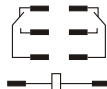
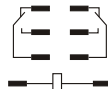

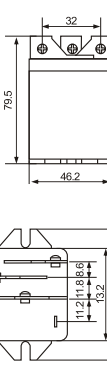
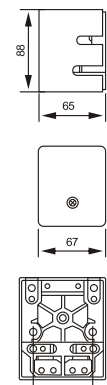
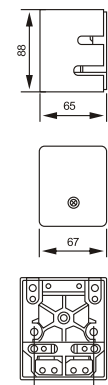

Type	RENMY2	RENMY4	RENLY2	REMY2	REMY4
Appearance					
Dimensions(L×W×H)mm	27.5×21×35	27.5×21×35	27.5×21×35	27.5×21×36	27.5×21×36
Contact form	2c	4c	2c,2a,2b	2c	4c
Rated load	5A 250VAC/30VDC	5A 250VAC/30VDC	10A 250VAC/30VDC	5A 250VAC/28VDC	5A 250VAC/28VDC
Contact resistance	≤50MΩ	≤50MΩ	≤50MΩ	≤50MΩ	≤50MΩ
Coil voltage	DC 6-110V AC 6-240V	DC 6-110V AC 6-240V	DC 6-220V AC 6-240V	DC 6-110V AC 6-240V	DC 6-110V AC 6-240V
Coil power	0.9W/1.2VA	0.9W/1.2VA	0.9W/1.2VA	0.9W/1.2VA	0.9W/1.2VA
Coil & contacts	1500VAC/1min	1500VAC/1min	1500VAC/1min	1500VAC/1min	1500VAC/1min
Contacts & contacts	1000VAC/1min	1000VAC/1min	1000VAC/1min	1000VAC/1min	1000VAC/1min
Insulation resistance	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ
Electrical life	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Mechanical life	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>
Operating temperature	-40~+70℃	-40~+70℃	-40~+70℃	-40~+70℃	-40~+70℃
Weight(g)	35g	38g	35g	38g	38g
Terminal layout					
Mounting holes (mm)					

Type	RELY2	REXMY2	REXMY4	MY2	MY4
Appearance					
Dimensions(L×W×H)mm	27.5×21×36	27.5×21×36	27.5×21×36	27.5×21×36	27.5×21×36
Contact form	2c	4c	2c	4c	2c
Rated load	10A 250VAC/28VDC	5A 250VAC/28VDC	5A 250VAC/28VDC	5A 250VAC/28VDC	5A 250VAC/28VDC
Contact resistance	≤50MΩ	≤50MΩ	≤50MΩ	≤50MΩ	≤50MΩ
Coil voltage	DC 6-110V AC 6-240V	DC 6-110V AC 6-240V	DC 6-110V AC 6-240V	DC 6-110V AC 6-240V	DC 6-110V AC 6-240V
Coil power	0.9W/1.2VA	0.9W/1.2VA	0.9W/1.2VA	0.9W/1.2VA	0.9W/1.2VA
Coil & contacts	1500VAC/1min	1500VAC/1min	1500VAC/1min	1000VAC/1min	1000VAC/1min
Contacts & contacts	1000VAC/1min	1000VAC/1min	1000VAC/1min	1000VAC/1min	1000VAC/1min
Insulation resistance	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ
Electrical life	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Mechanical life	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>
Operating temperature	-40~+70℃	-40~+70℃	-40~+70℃	-40~+70℃	-40~+70℃
Weight(g)	38g	38g	38g	38g	38g
Terminal layout					
Mounting holes (mm)					

Type	LY2	LY4	REMK2P	REMK3P
Appearance				
Dimensions(L×W×H)mm	27.5×31×35	27.5×41×35	27.5×21×36	27.5×21×36
Contact form	2c	4c,4a,4b	2c	3c
Rated load	10A 250VAC/30VDC	10A 250VAC/30VDC	10A 250VAC/28VDC	10A 250VAC/28VDC
Contact resistance	≤50MΩ	≤50MΩ	≤50MΩ	≤50MΩ
Coil voltage	DC	6-220V	6-220V	6-220V
	AC	6-380V	6-380V	6-380V
Coil power	1.4W/2.5VA	1.5W/3.2VA	0.9W/1.2VA	0.9W/1.2VA
Coil & contacts	1500VAC/1min	1500VAC/1min	1500VAC/1min	1500VAC/1min
Contacts & contacts	1000VAC/1min	1000VAC/1min	1000VAC/1min	1000VAC/1min
Insulation resistance	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ
Electrical life	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Mechanical life	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>
Operating temperature	-40~+70℃	-40~+70℃	-40~+70℃	-40~+70℃
Weight(g)	50g	70g	80g	82g
Terminal layout				
Mounting holes (mm)				

Type	70.2	70.3	80.2	80.3
Appearance				
Dimensions(L×W×H)mm	34.7×34×59	34.7×34×59	36×36×55	36×36×55
Contact form	2c	3c	2c	3c
Rated load	10A 250VAC/30VDC	10A 250VAC/30VDC	10A 250VAC/30VDC	10A 250VAC/30VDC
Contact resistance	≤50MΩ	≤50MΩ	≤50MΩ	≤50MΩ
Coil voltage	DC	6-220V	6-220V	6-220V
	AC	6-380V	6-380V	6-380V
Coil power	1.5W/2.8VA	1.5W/2.8VA	1.5W/2.8VA	1.5W/2.8VA
Coil & contacts	2500VAC/1min	2500VAC/1min	2500VAC/1min	2500VAC/1min
Contacts & contacts	1200VAC/1min	1200VAC/1min	1200VAC/1min	1200VAC/1min
Insulation resistance	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ
Electrical life	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Mechanical life	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>
Operating temperature	-40~+755℃	-40~+55℃	-40~+55℃	-40~+55℃
Weight(g)	80g	82g	80g	82g
Terminal layout	 	 	 	 
Mounting holes (mm)				

Type	JQX-12F	JQX-30F	JQX-38F	JQX-40F	JQX-60F
Appearance					
Dimensions(L×W×H)mm	52×47×40	48×53×36	57×42×50	74×47×47	72×46×82
Contact form	1c,1a,1b/2c,2a,2b	1c,1a,1b/2c,2a,2b	3c,3a,3b	1c,1a,1b/2c,2a,2b	2c,2a,2b
Rated load	20A 30A 250VAC/30VDC	20A 30A 250VAC/30VDC	30A 40A 250VAC/30VDC	40A 250VAC/30VDC	60A 250VAC/30VDC
Contact resistance	≤50MΩ	≤50MΩ	≤50MΩ	≤50MΩ	≤50MΩ
Coil voltage	DC 6-220V AC 6-380V	DC 6-220V AC 6-380V	DC 6-220V AC 6-380V	DC 6-220V AC 6-380V	DC 6-220V AC 6-380V
Coil power	1c:1.2W/2c:1.6W 2.5VA	1c:1.2W/2c:1.6W 2.5VA	2.5W/5.5VA	1c:1.8W/2c:2.4W 5VA/2.5VA	3.6W/6.5VA
Coil & contacts	2500VAC/1min	2500VAC/1min	2500VAC/1min	2500VAC/1min	2500VAC/1min
Contacts & contacts	1500VAC/1min	1500VAC/1min	1500VAC/1min	1500VAC/1min	1500VAC/1min
Insulation resistance	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ
Electrical life	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Mechanical life	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>
Operating temperature	-40~+70℃	-40~+70℃	-40~+70℃	-40~+70℃	-40~+70℃
Weight(g)	70g	70g	130g	160g	180g
Terminal layout					
Mounting holes (mm)					

Type	JQX-59F	JQX-62F-1Z	JQX-62F-2Z	JQX-120F-1Z	JQX-150F
Appearance					
Dimensions(L×W×H)mm	72×48×80	73×67×60	88×67×65	88×67×65	95×71×52
Contact form	1c,1a,2c,2a	1c,1a,1b	2c,2a,2b	1c,1a,1b	1c,1a,1b
Rated load	80A 250VAC/30VDC	80A 250VAC/30VDC	80A 250VAC/30VDC	120A 250VAC/30VDC	150A 250VAC/30VDC
Contact resistance	≤50MΩ	≤50MΩ	≤50MΩ	≤50MΩ	≤50MΩ
Coil voltage	DC 6-220V AC 6-380V	DC 6-220V AC 6-380V	DC 6-220V AC 6-380V	DC 6-220V AC 6-380V	DC 6-220V AC 6-380V
Coil power	3.6W/10.5VA	2W/10VA	2W/10VA	2W/10VA	2W/10VA
Coil & contacts	2500VAC/1min	2500VAC/1min	2500VAC/1min	2500VAC/1min	2500VAC/1min
Contacts & contacts	1500VAC/1min	1500VAC/1min	1500VAC/1min	1500VAC/1min	1500VAC/1min
Insulation resistance	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ	≥100MΩ
Electrical life	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Mechanical life	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>
Operating temperature	-40~+70℃	-40~+70℃	-40~+70℃	-40~+70℃	-40~+70℃
Weight(g)	240g	223g	335g	300g	350g
Terminal layout					
Mounting holes (mm)					



## PT Sockets




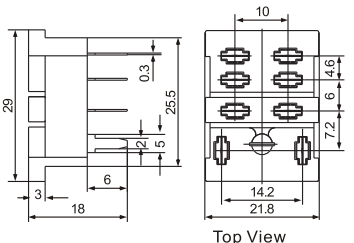
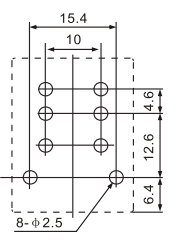

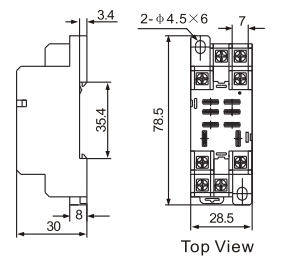

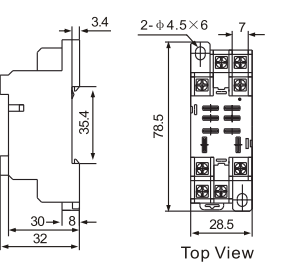
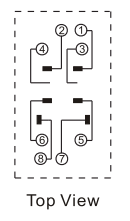
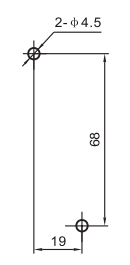
### Features

- ◆ The dielectric strength can reach 2000VAC and the insulation resistance is 1000MΩ
- ◆ Three mounting types are available:PCB mounting screw mounting and DIN rail mounting
- ◆ With finger protection device
- ◆ Components available:marker,jumper and separator
- ◆ Applicable relay types:LY2
- ◆ Environmental friendly product (RoHS compliant)

CE RoHs

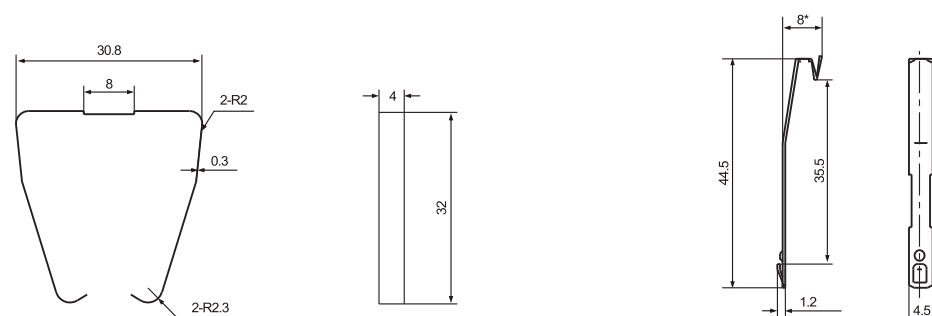
### Outline Dimensions,Wiring Diagram and PC Board Layout

Unit:mm

Socket	Outline Dimensions	Wiring Diagram	PCB Layout	Components Available
<b>PT-08B</b>  PCB Terminal PCB Mounting				Metallic retainer PT08B
<b>PTF-08A</b>  Screw terminal, DIN rail or screw mounting With finger protection device				Metallic retainer PTF-08A (be used in sets)
<b>PTF-08AE</b>  Screw terminal, DIN rail or screw mounting With finger protection device				Metallic retainer PTF-08AE (be used in sets)

### Dimension of Related Component(Available)

Unit:mm



## PYF Sockets




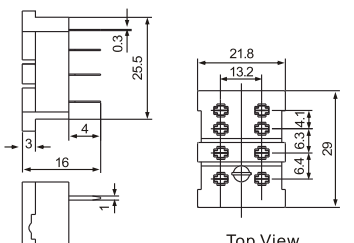
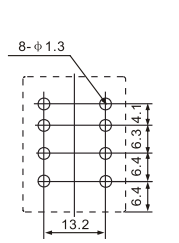

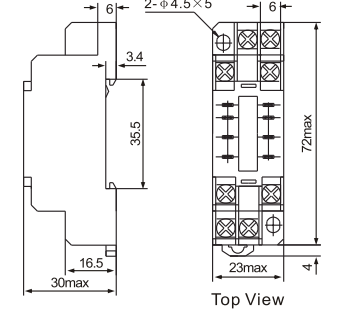
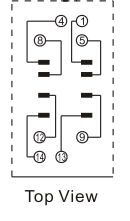
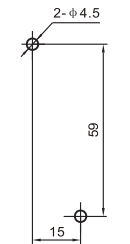

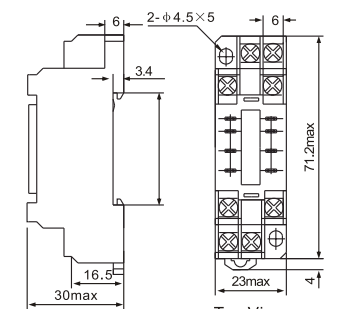
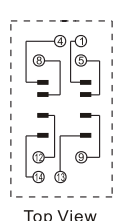
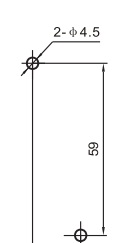

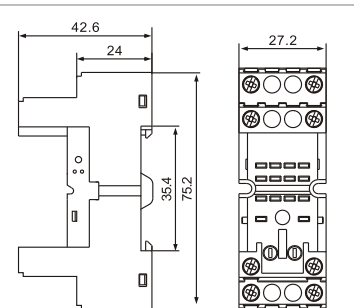
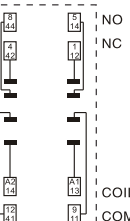
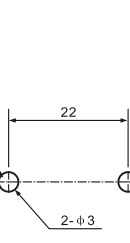
### Features

- ◆ The dielectric strength can reach 2000VAC and the insulation resistance is 1000MΩ
- ◆ Three mounting types are available:PCB mounting screw mounting and DIN rail mounting
- ◆ With finger protection device
- ◆ Many kinds of plug-in modules are available with the function of energizing iddication and wiring protection.
- ◆ Components available:marker,jumper and separator
- ◆ Applicable relay types:REMY2\REMY4
- ◆ Environmental friendly product (RoHS compliant)

CE RoHs


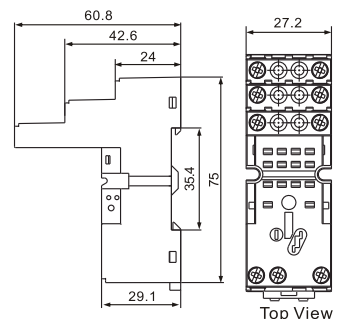
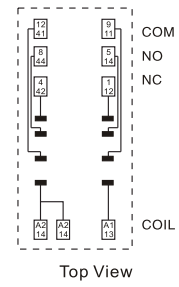
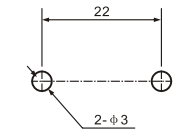

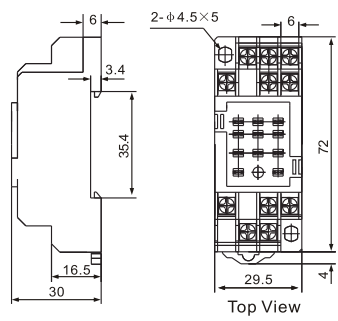
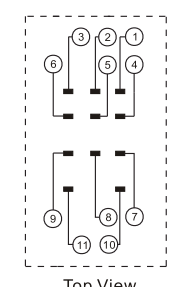
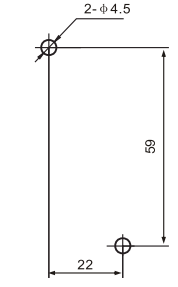

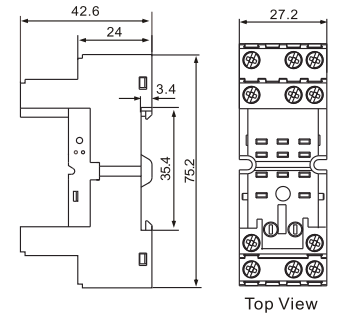
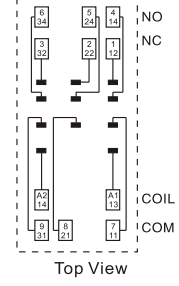
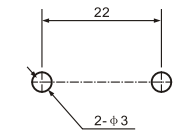

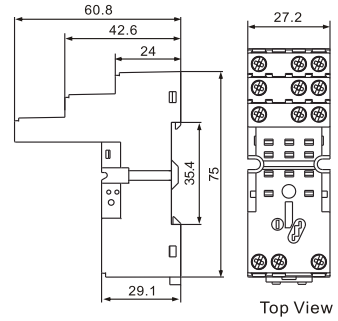
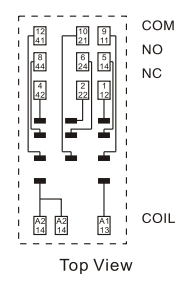
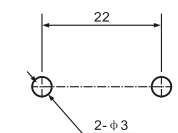

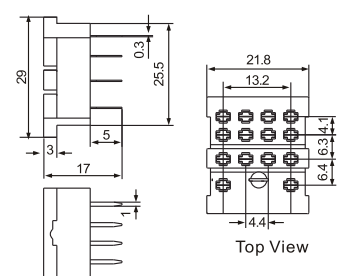
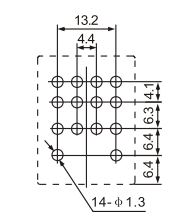
### Outline Dimensions,Wiring Diagram and PC Board Layout

Unit:mm

Socket	Outline Dimensions	Wiring Diagram	PCB Layout	Components Available
<b>PY-08B</b>  Screw terminal, DIN rail or screw mounting Applicable for 2 poles				Metallic retainer PY-08B
<b>PYF-08A</b>  Screw terminal, DIN rail or screw mounting Applicable for 2 poles				Metallic retainer PYF-08A
<b>PYF-08AE</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 2 poles				Metallic retainer PYF-08AE
<b>PYF-08RF</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 2 poles				Metallic retainer PYF-08BE


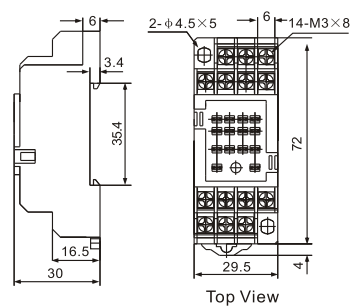
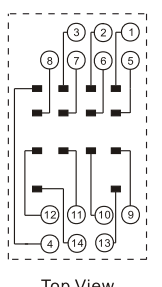
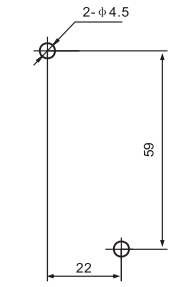

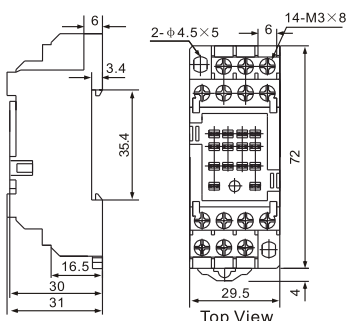
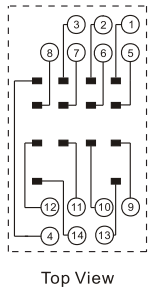
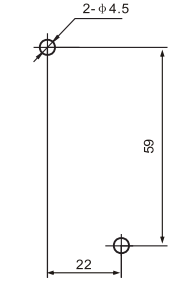

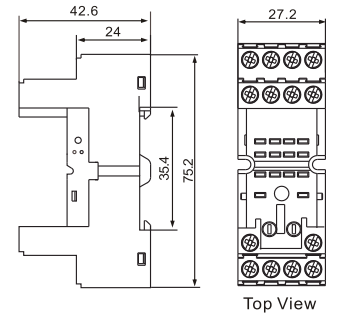
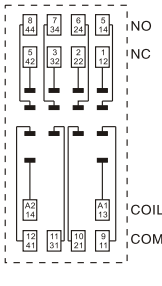
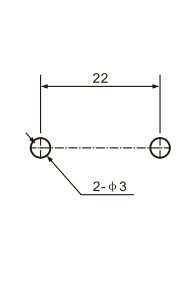

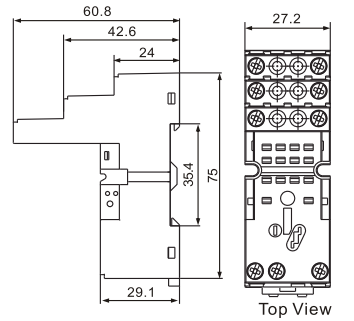
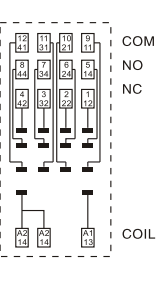
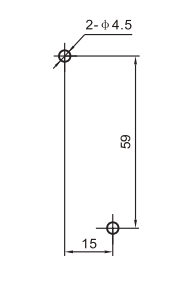

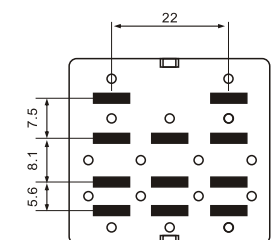
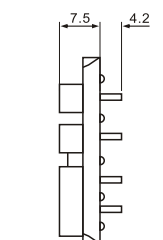
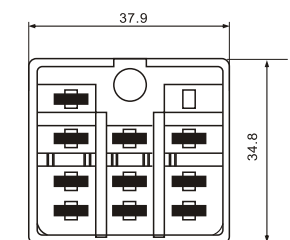
## Outline Dimensions, Wiring Diagram and PC Board Layout

Unit:mm

Socket	Outline Dimensions	Wiring Diagram	PCB Layout	Components Available
<b>PYF-08BE/4</b>  <p>Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 2 poles</p>	 <p>Top View</p>	 <p>Top View</p>	 <p>2-φ3</p>	Plastic retainer PYF-08BE/4  Metallic retainer PYF-08BE/4  Marker PYF-08BE/4
<b>PYF-11A</b>  <p>Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 3 poles</p>	 <p>Top View</p>	 <p>Top View</p>	 <p>2-φ4.5</p>	Metallic retainer PYF-11A
<b>PYF-11BE</b>  <p>Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 3 poles</p>	 <p>Top View</p>	 <p>Top View</p>	 <p>2-φ3</p>	Plastic retainer PYF-11BE  Metallic retainer PYF-11BE  Marker PYF-11BE
<b>PYF-11BE/4</b>  <p>Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 3 poles</p>	 <p>Top View</p>	 <p>Top View</p>	 <p>2-φ3</p>	Plastic retainer PYF-11BE/4  Metallic retainer PYF-11BE/4  Marker PYF-11BE/4
<b>PY-14B</b>  <p>PCB Terminal, PCB Mounting Applicable for 4 poles</p>	 <p>Top View</p>		 <p>14-φ1.3</p>	Metallic retainer PY-14B

## Outline Dimensions, Wiring Diagram and PC Board Layout

Unit:mm

Socket	Outline Dimensions	Wiring Diagram	PCB Layout	Components Available
<b>PYF-14A</b>  <p>Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 4 poles</p>	 <p>Top View</p>	 <p>Top View</p>	 <p>2-φ4.5</p>	Metallic retainer PYF-14A
<b>PYF-14AE</b>  <p>Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 4 poles</p>	 <p>Top View</p>	 <p>Top View</p>	 <p>2-φ4.5</p>	Metallic retainer PYF-14AE
<b>PYF-14BE</b>  <p>Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 4 poles</p>	 <p>Top View</p>	 <p>Top View</p>	 <p>2-φ3</p>	Plastic retainer PYF-14BE  Metallic retainer PYF-14BE  Marker PYF-14BE
<b>PYF-14BE/4</b>  <p>Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 4 poles</p>	 <p>Top View</p>	 <p>Top View</p>	 <p>2-φ4.5</p>	Metallic retainer PYF-14BE/4
<b>53FB</b> 				

## 10F Sockets

CE RoHs


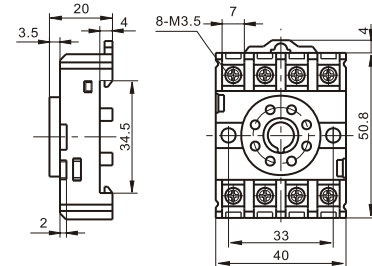
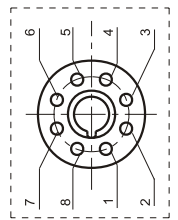
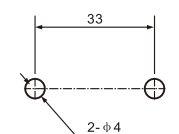

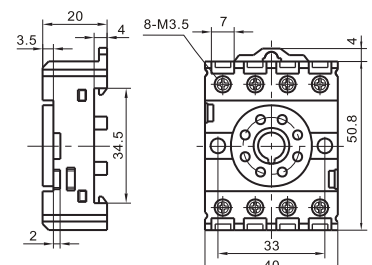
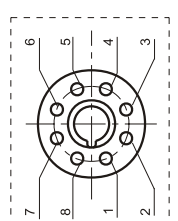
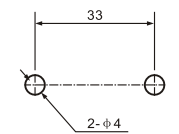

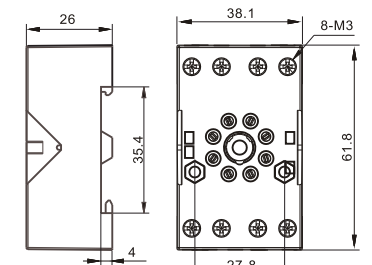
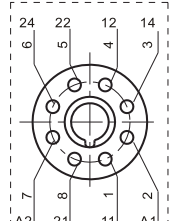
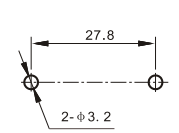

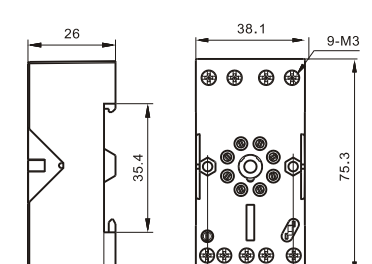
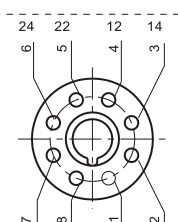
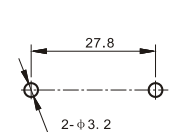


### Features

- ◆ The dielectric strength can reach 2000VAC and the insulation resistance is 1000MΩ
- ◆ Two mounting types are available:PCB mounting screw mounting and DIN rail mounting
- ◆ With finger protection device
- ◆ Many kinds of plug-in modules are available with the function of energizing indication and wiring protection.
- ◆ Components available:marker,jumper and separator
- ◆ Applicable relay types:10F
- ◆ Environmental friendly product (RoHS compliant)


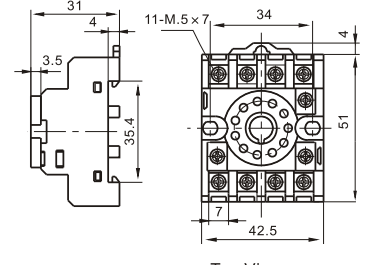
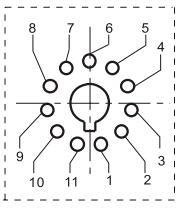
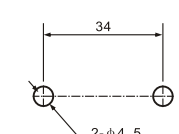

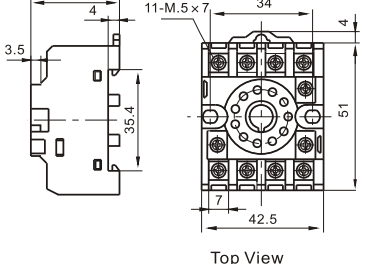
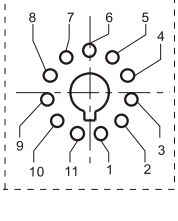
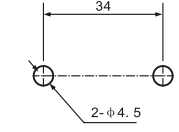

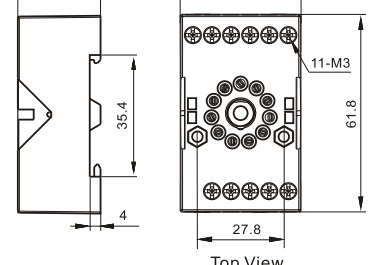
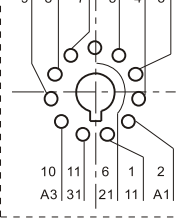
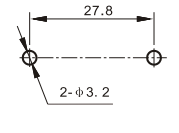

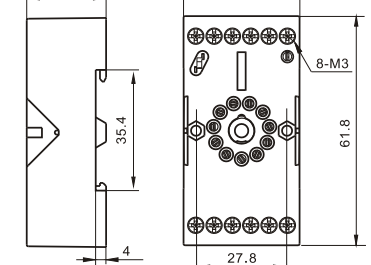
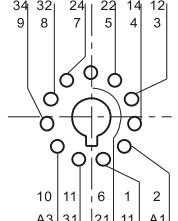
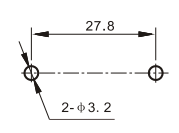

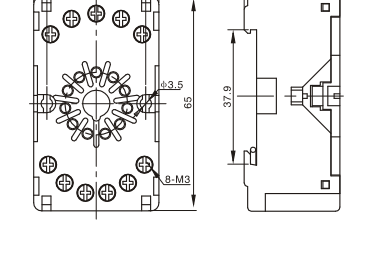
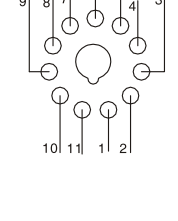
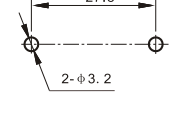
### Outline Dimensions,Wiring Diagram and PC Board Layout

Unit:mm

Socket	Outline Dimensions	Wiring Diagram	PCB Layout	Components Available
<b>PF-083A</b>  Screw terminal, DIN rail or screw mounting Without finger protection device Applicable for 2 poles				Metallic retainer PF-083A
<b>PF-083AE</b>  Screw terminal, DIN rail or screw mounting Without finger protection device Applicable for 2 poles				Metallic retainer PF-083AE
<b>10F-083BE</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 2 poles				Metallic retainer 10F-083BE
<b>10F-083BEL</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 2 poles				Metallic retainer 10F-083BEL

### Outline Dimensions,Wiring Diagram and PC Board Layout

Unit:mm

Socket	Outline Dimensions	Wiring Diagram	PCB Layout	Components Available
<b>PF-113A</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 3 poles				Metallic retainer PF-113A
<b>PF-113AE</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 3 poles				Metallic retainer PF-113AE
<b>10F-113BE</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 3 poles				Metallic retainer 10F-113BE
<b>10F-113BEL</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 3 poles				Metallic retainer 10F-113BEL
<b>10F-113BEN</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 3 poles				Metallic retainer 10F-113BEN

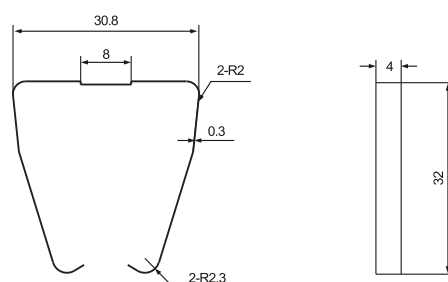


Dimension of Related Component(Available)

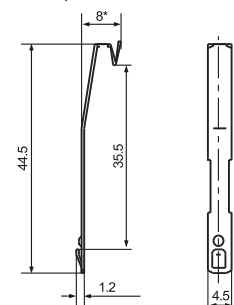
Unit:mm

Retainer

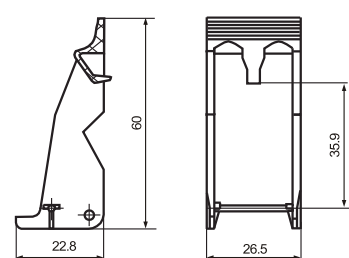
MY4 (Metallic retainer)



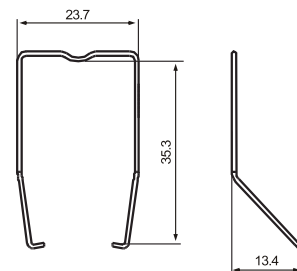
PYF-14BE (Metallic retainer)



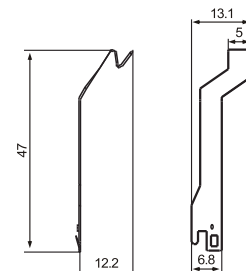
PYF-14BE (Plastic retainer)



PYF-14BE (Metallic retainer)

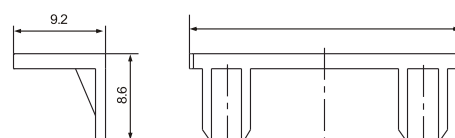


PYF-14BE (Metallic retainer)

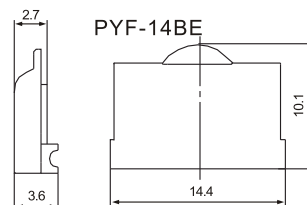


Marker

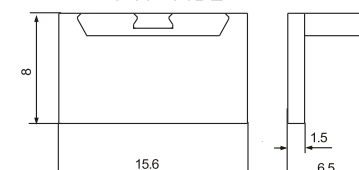
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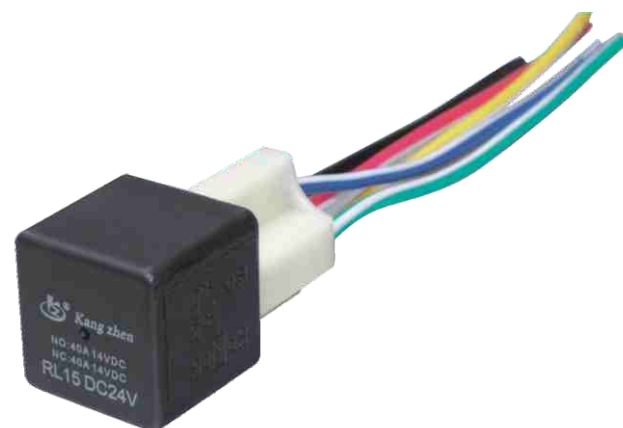
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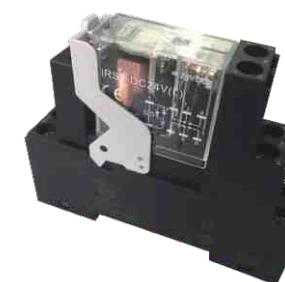
PYF-14BE



KC001



PI Sockets


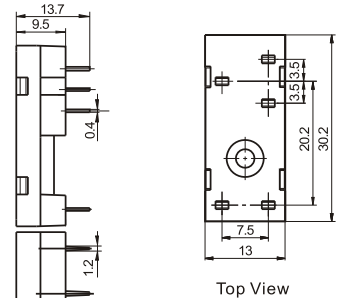
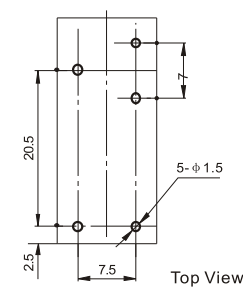

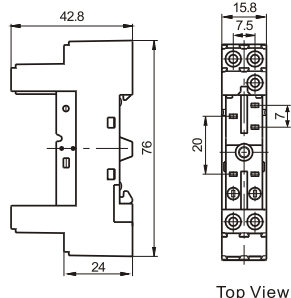
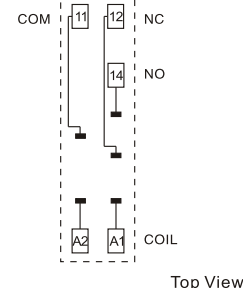

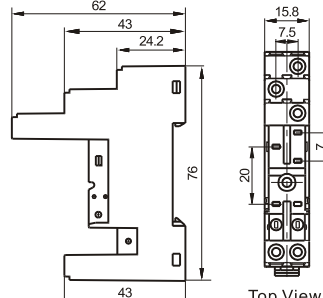
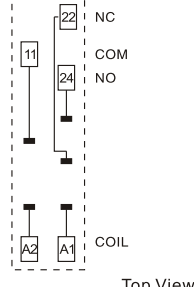

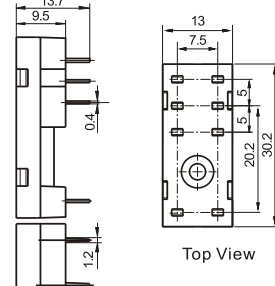
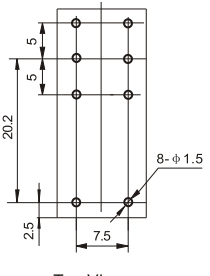


Features

- ◆ The dielectric strength can reach 5000VAC and the insulation resistance is 1000MΩ
- ◆ Three mounting types are available:PCB mounting screw mounting and DIN rail mounting
- ◆ With finger protection device
- ◆ Many kinds of plug-in modules are available with the function of energizing iddication and wiring protection.
- ◆ Components available:marker,jumper and separator
- ◆ Applicable relay types:PI-14FF
- ◆ Environmental friendly product (RoHS compliant)


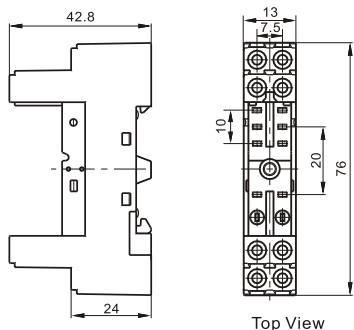
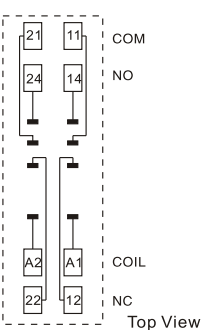

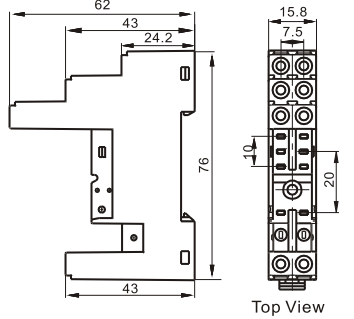
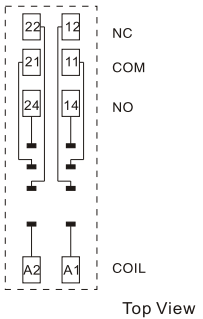

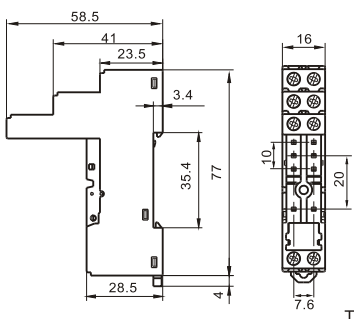
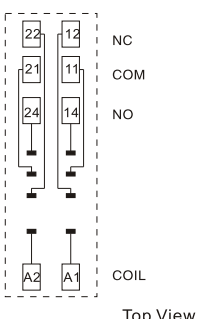
CE RoHs

Outline Dimensions,Wiring Diagram and PC Board Layout

Socket	Outline Dimensions	Wiring Diagram	Components Available
<b>PI-05</b>  PCB Terminal PCB or screw mounting Applicable of PI-05	 Top View	 Top View	Metallic retainer PI-05
<b>PI-05BE</b>  PCB Terminal PCB or screw mounting Applicable of PI-08BE	 Top View	 Top View	Metallic retainer PI-05BE
<b>PI-05BEL</b>  PCB Terminal PCB or screw mounting Applicable of PI05-BEL	 Top View	 Top View	Metallic retainer PI-05BEL
<b>PI-08</b>  PCB Terminal PCB or screw mounting Applicable of PI-08	 Top View	 Top View	Metallic retainer PI-08

## Outline Dimensions,Wiring Diagram and PC Board Layout

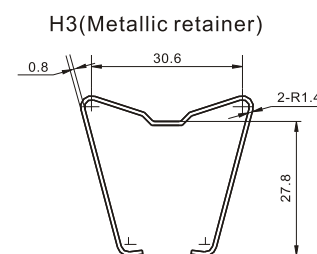
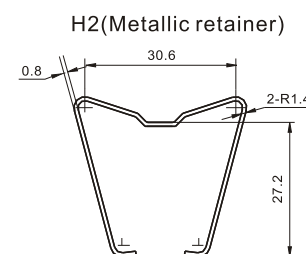
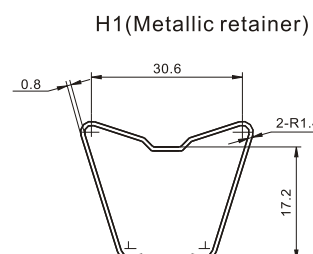
Unit:mm

Socket	Outline Dimensions	Wiring Diagram	Components Available
<b>PI-08BE</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for PI-08BE	 <p>Top View</p>	 <p>Top View</p>	Metallic retainer PI-08BE
<b>PI-08BEL</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for 14FF	 <p>Top View</p>	 <p>Top View</p>	Metallic retainer PI-08BEL
<b>PI-08BEN</b>  Screw terminal, DIN rail or screw mounting With finger protection device Applicable for PI-08BEN	 <p>Top View</p>	 <p>Top View</p>	Metallic retainer PI-08BEN

## Dimension of Related Component(Available)

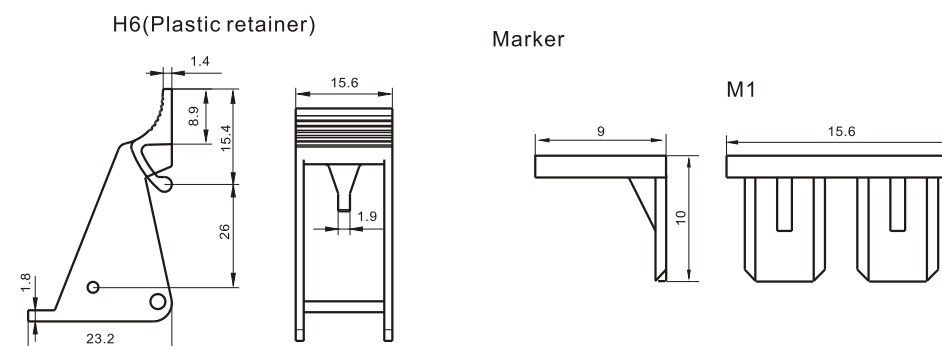
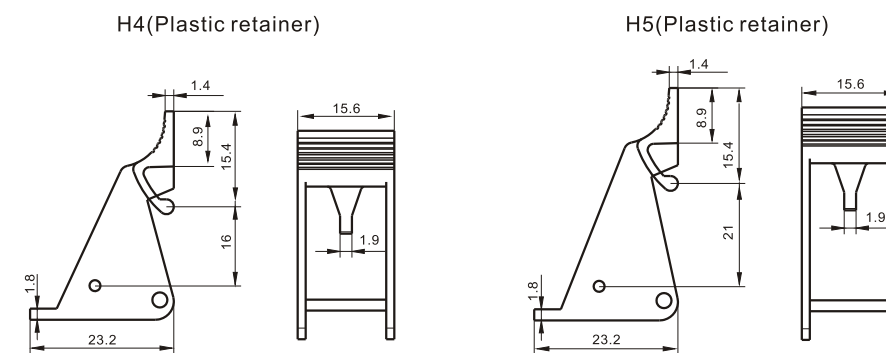
Unit:mm

Retainer

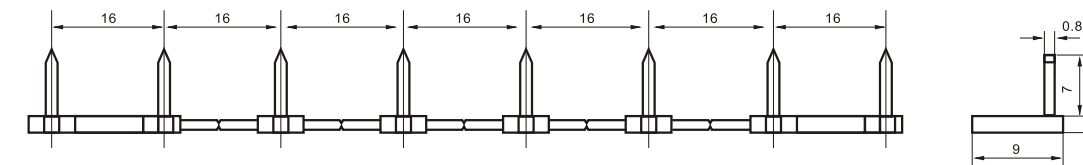


## Outline Dimensions,Wiring Diagram and PC Board Layout

Unit:mm



Jumper





KZ4TG10  
KZ4TG11  
KZ4TG12

### 产品特点Product character

产品是一款智能型电源保护器，具有过压保护、欠压保护、缺相保护、逆相保护、三相不平衡功能保护于一体，体积小可靠性高

This product is smart power protector with the following functions

- ◆ Over-voltage protection
- ◆ Under-voltage protection
- ◆ Loss phase protection
- ◆ Reverse phase protection
- ◆ Three-phase imbalance protection
- ◆ The above protections are in one and small volume and high reliability

### 产品参数Product parameter

- ◆ 过压保护、欠压保护、缺相保护、逆相保护、三相不平衡保护
- ◆ 注:过压和欠压保护约4-7秒动作缺相和逆相保护约1-2秒动作
- ◆ 由于本保护器只针对电压及其相序进行保护，所以适用于各种功率的电机; 如不需要上述某一项保护功能，请在订货时注明
- ◆ 电源电压：三相380±20%
- ◆ 输出触点容量：250VAC6A 30VDC3A
- ◆ 工作环境：温度-20℃~+70℃
- ◆ 相对湿度：45%~85%RH
- ◆ 频率：50/60Hz
- ◆ 触点形式:两常开两常闭
- ◆ 外形尺寸：长\*宽\*高79mmx23mmx79mm
- ◆ Over-voltage protection, under voltage protection, loss phase protection, reverse phase protection, three-phase imbalance protection.  
Note: over voltage and under voltage protection for about 4-7 seconds action phase ; reverse phase protection action for about 1-2 seconds.
- ◆ This product is suitable for all kinds of power motors voltage and phase protection and pls specify if not meet our mentioned a certain functions.
- ◆ Voltage range : three phrases 380±20%
- ◆ Output contact capacity: 250VAC6A 30VDC3A
- ◆ Working temperature: -20℃~+70℃
- ◆ Relative humidity: 45%-85%RH
- ◆ Frequency: 50/60Hz
- ◆ Contact form: DPDT
- ◆ Size: 79mmx23mmx79mm

### 适用范围Usage scope

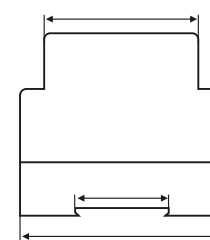
- ◆ 本产品广泛用于各种低压电器控制系统，是工业设备运行维护设备工作电压正常的不可缺少保护产品。
- ◆ 本产品符合GB14048.5-2001eqvIEC60947-1:1999标准
- ◆ Widely used in all kinds of low-voltage electrical control system and is essential protection products for industrial equipment voltage operation.
- ◆ Standard:Conforms to GB14048.5-2001(IEC60947-1:1999)

### 型号及命名Model name

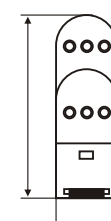
- KZ □ □ □ □
- 电压设定范围Voltage setting range:  
A:过压+10%,欠压-10% over-voltage+10%; under-voltage -10%  
B:过压+12.5%,欠压-10% over-voltage+12.5%; under-voltage -10%  
C:过欠压值由客户指定range value of over-voltage and inder-voltage is specified by customers
  - 额定工作电压 Rated operating voltage:220VAC 380VAC 440VAC 460VAC
  - 三相电源监视器 Three phase power monitor

### 外形及安装尺寸Installation dimensions

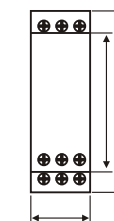
### 接线图 Wiring diagram



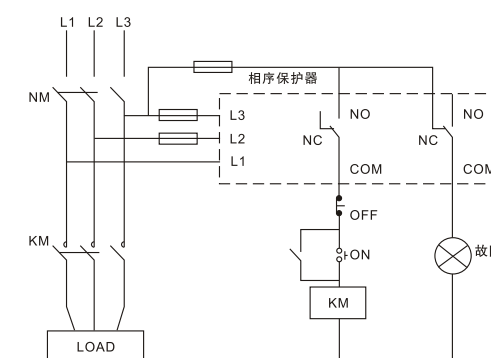
侧视图  
Side view



前视图  
Front view



顶视图  
Top view



警告：本产品不得安装在变频电流的输出侧，  
Warming! this product shall not be installed on  
the output side of the inverter current

### 电压范围选型表Typical Voltage range Chart

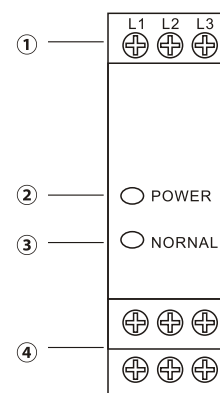
型号 Type	额定电压 Rated voltage(V)	过压设定 Over voltage setting	欠压设定 Under voltage setting
KZ-220	220	253	187
KZ-220A	220	242	198
KZ-220B	220	248	198
KZ-220C	220	The customer designated	The customer designated
KZ-380	380	437	323
KZ-380A	380	418	342
KZ-380B	380	428	342
KZ-380C	380	The customer designated	The customer designated
KZ-440	440	506	374
KZ-440A	440	484	396
KZ-440B	440	495	396
KZ-440C	440	The customer designated	The customer designated
KZ-460	460	529	391
KZ-460A	460	506	414
KZ-460B	460	518	414
KZ-460C	460	The customer designated	The customer designated





KZ4TG11

- ①电源输入端
- ②LED电源指示
- ③LED信号正确指示
- ④继电器控制信号输出

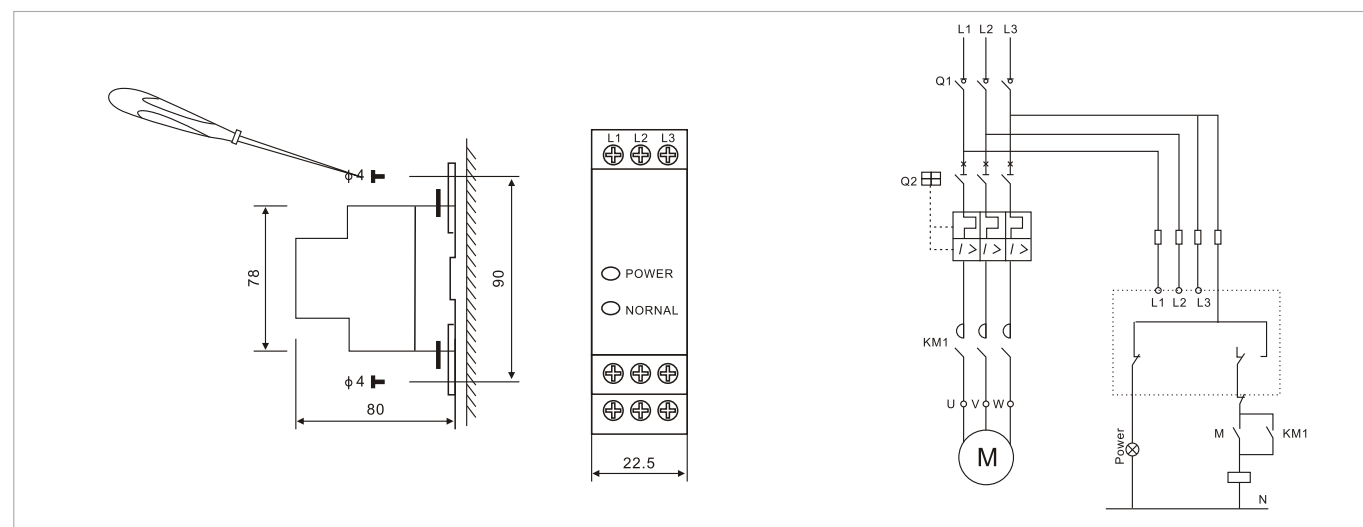


### 主要技术参数 Main technical parameters

- ◆ 额定绝缘电压Ui: 500.V AC.
- ◆ 使用类别下的各个额定工作电压Ue/额定工作电流Ie:AC-15:2A/250VDC-13:2A/24V
- ◆ 外壳等级防护IP:IP20
- ◆ 额定限制短路电流试验时所配的熔断器型号: NT00-4.
- ◆ 控制电源电压: 200V-500V AC
- ◆ Rated Insulation Voltage. Ui:500V AC
- ◆ Rated operating volt Ue/ Rated operating current Ie:AC-15:2A/250VDC-13:2A/24V
- ◆ Shell protection degree :IP20
- ◆ Rated short circuit current test fuse model: NT00-4.
- ◆ Control power voltage: 200-500V AC

### 安装及尺寸 Installation and size dimension

### 接线图 Wiring diagram



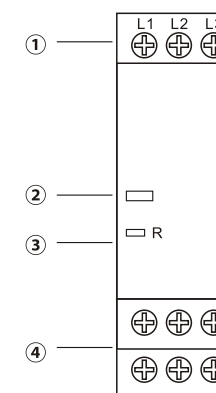
### 质量承诺 Quality commitment

- ◆ 本产品质保期为12个月
- ◆ 如产品在质保期内发生故障, 本公司负责免费维修
- ◆ 如果因用户使用不当影响产品性能或造成危害, 不在本公司的产品质量保证范围内, 本公司将不负责该产品
- ◆ Quality Assurance period: 12 months.
- ◆ Free of Charge for warranty product
- ◆ We are free of claims if any misuse by users to cause product misperformance or damage .



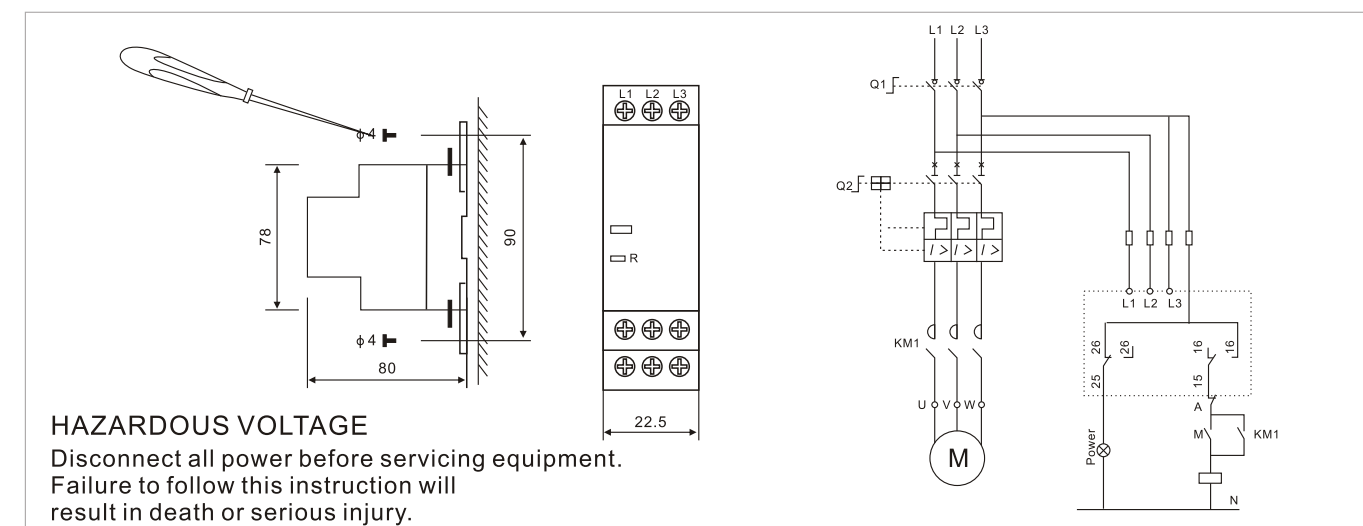
KZ4TG20

- ①电源输入端
- ②LED电源指示
- ③LED信号正确指示
- ④继电器控制信号输出

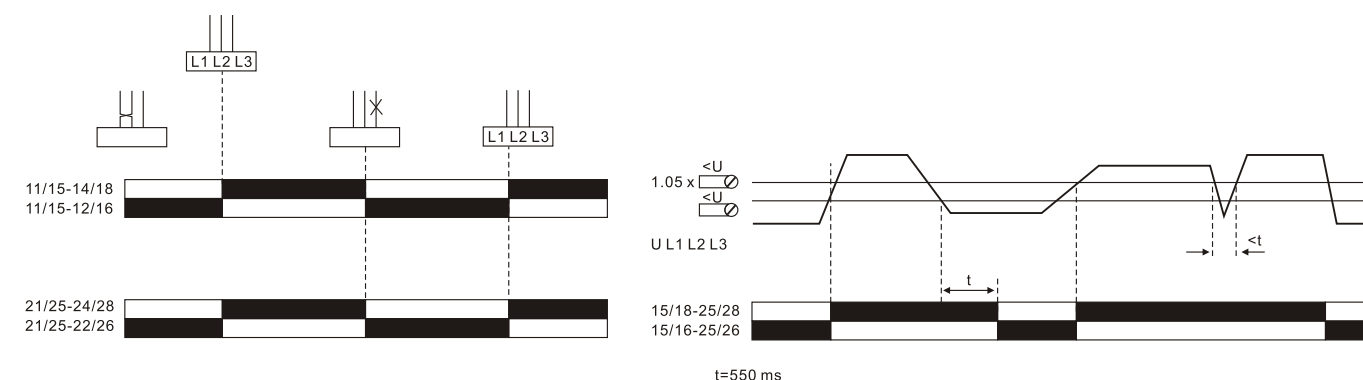


### 安装及尺寸 Installation and size dimension

### 接线图 Wiring diagram



### KZ4TG20



A motor that continues to turn despite loss of a phase can regenerate a voltage if this voltage exceeds the sensing threshold, the relay will not detect phase loss. In this case, we recommend use of KZ4TG20.

Operating diagram



## Feature

- ◆ Contact configuration
- ◆ Universal power supply
- ◆ 2 LED status indicators
- ◆ Only 17.5mm wide
- ◆ DIN rail mountable
- ◆ CE RoHS compliant

## Function

	Type	Over voltage	Under voltage	Time delay	Phase sequence	Phase failure
Single phase	KT7011□	15%	15%	3S	-	-
	KT7111□	0-20%	0-20%	3S	-	-
	KT7211□	0-20%	0-20%	3S	-	-
	KT7311□	0-20%	0-20%	0.1-10S	-	-
Three phase	KT7010□	15%	15%	3S	✓	✓
	KT7110□	0-20%	0-20%	3S	✓	✓
	KT7210□	0-20%	0-20%	3S	✓	✓
	KT7310□	0-20%	0-20%	0.1-10S	✓	✓

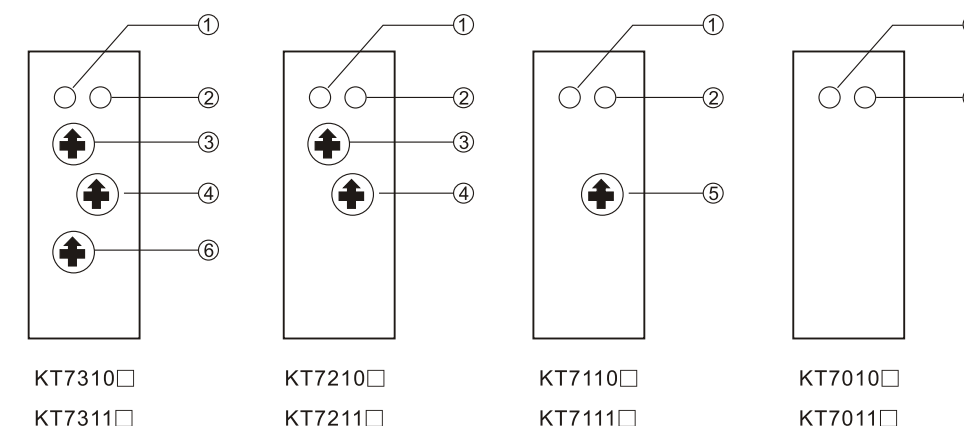
□: Operating Voltage:

**220:** AC220V    **D24:** DC24V    **A24:** AC24V    **H00:** AC/12-240V More...

## Technical Data

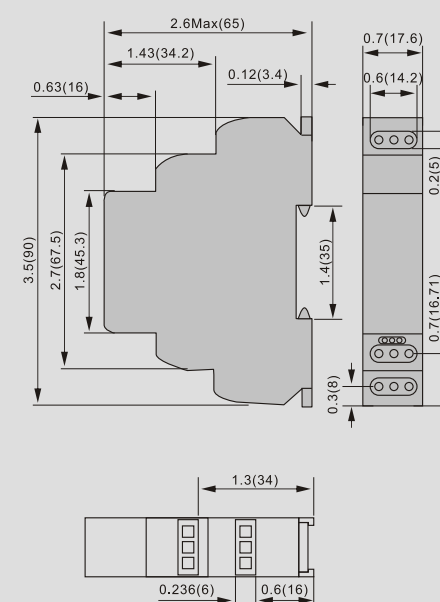
Item No.	Single phase	Three phase
Rated voltage	AC110V,220V,380V,415V,440V	AC220V,380V,415V,440V
Frequency	50/60Hz	
Response time of relay	Delay on :0.5S    Delay off:3S	
Contact rating	AC-15:3A/250VAC	
Ith	5A	
Reset time	0.2 Sec Max	
Ambient temp	-10~+55℃	
Setting error	± 10% Max	
Repeat error	± 2% Max	
Voltage error	± 2% Max	
Temp.error	± 2% Max	

## Model & Explanation

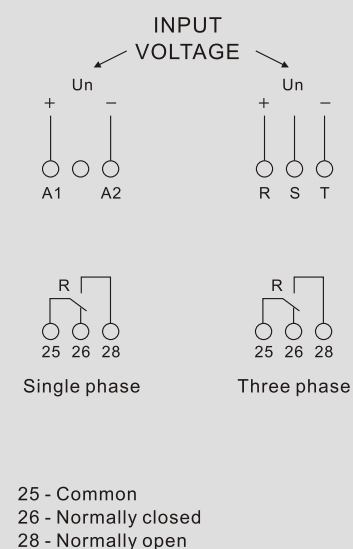


- ① Power indicator
- ② Work indicator
- ③ Over voltage setting
- ④ Under voltage setting
- ⑤ Over/Under voltage setting
- ⑥ Time for action delay

## Dimensions



## Wiring Diagrams




**Feature**

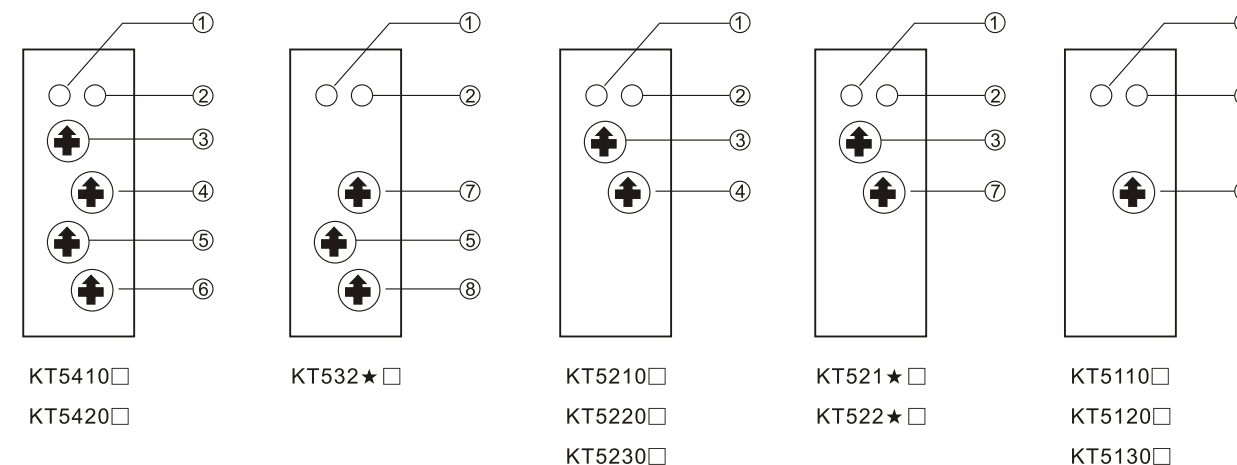
- ◆ Contact configuration
- ◆ Universal power supply
- ◆ 2 LED status indicators
- ◆ SPDT/DPDT
- ◆ Rated current: 15A or 15A\*2
- ◆ Only 17.5mm wide
- ◆ DIN rail mountable
- ◆ CE RoHS compliant

**Technical Data**

Type	Spec	Tim range	Timing chart
KT5110□	One time-delay, SPDT	1S,2S... 1M,2M... 1H,...,30H Customized according to clients' requirements	<p>SPDT</p>
KT5120□	One time-delay, DPDT		
KT5210□	One time-delay, SPDT Second/minute selected		
KT5220□	One time-delay, DPDT Second/minute selected		
KT5130□	One time-delay, One inst. One delay output		
KT5230□	One time-delay, One inst. One delay output Second/minute selected	★:A,B,C,D,E time range A 1S/10S/1M/10M B 3S/30S/3M/30M C 6S/60S/6M/60M D 1M/10M/1H/10H E 3M/30M/3H/30H	<p>DPDT</p>
KT521★□	Multi-period time-delay, SPDT		
KT522★□	Multi-period time-delay, DPDT		
KT532★□	Multi-period time-delay, A/B Output mode selected A Mode:DTDP B Mode:One inst, One delay output		
KT5410□	MCirculation mode SPDT second/minute selected		
KT5420□	MCirculation mode DPDT second/minute selected	1S,2S... 1M,2M... 1H,...,30H Customized according to clients' requirements	<p>Circulation mode DPDT</p>

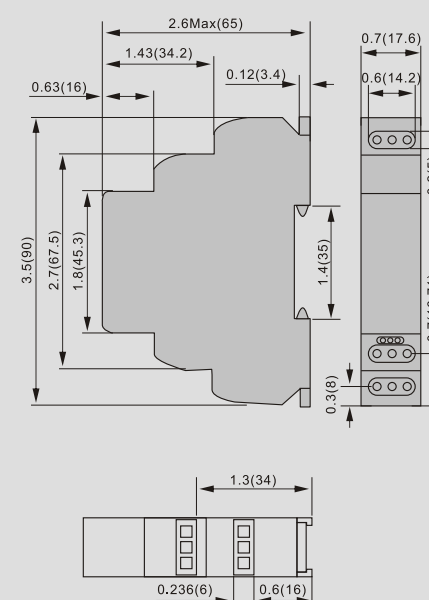
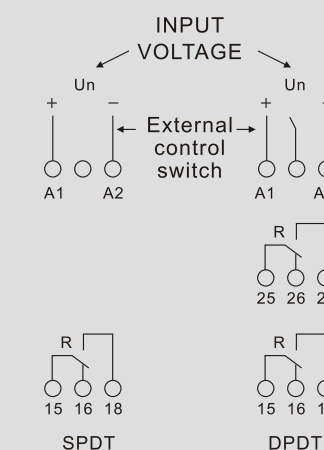
□: Operating Voltage:

**220:** AC220V    **D24:** DC24V    **A24:** AC24V    **H00:** AC/12-240V More...

**Model & Explanation**


- ① Power indicator
- ② Work indicator
- ③ Time adjustment knob 1
- ④ Second/minute selected 1

- ⑤ Time adjustment knob 2
- ⑥ Second/minute selected 2
- ⑦ Time ranges selection
- ⑧ A/b mode selected

**Dimensions**

**Wiring Diagrams**


15 - Common  
16 - Normally closed  
18 - Normally open  
25 - Common  
26 - Normally closed  
28 - Normally open





## Feature

- ◆ Up to 10 Functions
- ◆ Broad timing range(from 0.1s to 10 days)
- ◆ Contact configuration
- ◆ Universal power supply
- ◆ 2 LED status indicators
- ◆ Onyl 17.5mm wide
- ◆ DIN rail mountable
- ◆ RoHs compliant

## Benefits

- ◆ 5 timing functions controlled via supply voltage
- ◆ 4 timing functions controlled via trigger input
- ◆ 1 timing functions of memory latching relay
- ◆ Meets most timing requirements
- ◆ SPDT/DPDT
- ◆ 12 to 240VAC/VDC
- ◆ Indicates coil status
- ◆ Ideal for tight spaces
- ◆ Easy installation/No tools
- ◆ Environmentally friendly

This device is designed for connection of 1-phase current, 12-240V AC/DC and must be installed according to norms valid in existing state. Connections must be made according to details in this instruction sheet. Installation, connections, setting and servicing should be performed by qualified electrician staff, who understand this instruction sheet and functions of respective device. Before starting installation ensure that the main switch is in OFF position and there should be no power going to the device. Qualified installer must also ensure the device is being installed into a temperature controlled environment which will guarantee not to exceed the specified maximum operating temperature. For installation use a screwdriver with 2 mm tip.

## Technical Data

	Function	Operations	Timing chart
<b>Dimensions</b>  	<b>A</b> On delay power On	When the input voltage U is applied, timing delay t begins. Relay contacts R change state after time delay is complete. Contacts R return to their shelf state when input voltage U is removed. Trigger switch is not used in this function.	U On R Off
	<b>B</b> Repeat cycle starting Off	When input voltage U is applied, time delay begins. When time delay t is complete, relay contacts R change state for time delay t. This cycle will repeat until input U voltage is removed. Trigger switch is not used in this function.	U On R Off
	<b>C</b> Interval power On	When input voltage U is applied, relay contacts R change state immediately and timing cycle begins. When time delay is complete, contacts return to their shelf state. When input voltage U is removed, contacts will also return to their state. Trigger switch is not used in this function.	U On R Off
	<b>D</b> Off delay S break	Input voltage U must be applied continuously. When trigger S is closed, relay contacts R change state. When trigger S is opened, delay t begins. When delay is complete, contacts R return to their shelf state. If trigger S is closed before time delay t is complete, then time is reset. When trigger S is opened, the delay begins again, and relay contacts remain in their energized state, if input voltage U is removed, relay contacts R return to their shelf state.	U Close S Open R On R Off
	<b>E</b> Retriggerable cycle starting On	Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. At the end of the preset time t, the relay contacts R return to their normal condition unless the trigger signal S is opened and closed prior to time out t (before preset time elapses). Continuous cycling of the trigger signal S at a rate faster than the preset time will cause the relay contacts R to remain closed. If input voltage U is removed, relay contacts R return to their shelf state.	U Close S Open R On R Off
<b>Wiring Diagrams</b>  	<b>F</b> Repeat cycle starting On	When input voltage U is applied, relay contacts R change state immediately and time delay t begins. When time delay t is complete, contacts return to their shelf state for time delay t. This cycle will repeat until input voltage U is removed. Trigger switch is not used in this function.	U On R Off
	<b>G</b> Pulse generator	Upon application of input voltage U, a single output pulse of 0.5 seconds is delivered to relay after time delay t. Power must be removed and reapplied to repeat pulse. Trigger switch S is not used in this function.	U On R Off
	<b>H</b> One shot	Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. During time-out, the trigger signal S is ignored. The relay resets by applying the trigger signal S when the relay is not energized.	U Close S Open R On R Off
	<b>I</b> On/Off delay S make/break	Input voltage U must be applied continuously. When trigger is closed, time delay t begins. When time delay t is complete, relay contacts R change state and remain transferred until trigger S is opened. If input voltage U is removed, relay contacts R return to their shelf state.	U Close S Open R On R Off
	<b>J</b> Memory latch S make	Input voltage U must be applied continuously. Output changes state with every trigger S closure. If input voltage U is removed, relay contacts R return to their shelf state.	U Close S Open R On R Off



The device is constructed for 1-phase main and must be installed in accordance with regulations and standards applicable in the country of use. While installing the device, follow the instructions in the manual and on the cover packaging of device. Do not operate the device out of the specified range of technical parameters. Installation and launching can be done only by a person with an adequate electro-technical qualification who is accredited for this work and is informed about this manual and functions of this device. The person who performs the installation is responsible for correct and safe installation of this device. Keep in mind that this is a fully electronic device when mounting. Non problematic functioning of the device also depends on the previous way of transportation, storing and handling. If you find any signs of damage, deformation, malfunction or a missing part, do not install this device and claim it at its seller. After the expiration date of the product it is suggested to dismount, recycle, and store it at protected dumping site.

## 1) Protection of the device

- the device contains protection against over-voltage peaks, and disturbing surges in the mains. To ensure correct functioning of these protective elements, suitable protection of higher degree (A,B,C) must be present in the installation, and screening of switched devices (contactors, motors, inductive loads etc.) must be applied.

- ensure protection of the device by adequate elements of over-current and over-voltage fuses.

## 2) Operating conditions

- while installing this device. Consider ambient temperature rate. So the operation temperature stated in the manual is maintained.

- ensure air circulation so the operation temperature is not exceeded in any case.  
- to ensure the stated operating life and correct functioning of the device. It is not recommended to expose it to extreme influences that can negatively affect correct functioning; permanent exposure to temperatures (see technical parameters), aggressive evaporates of chemicals, high relative humidity above 95%, strong electromagnetic field or microwave radiation etc.

- all our products are in compliance with requirements of EMC (electromagnetic immunity and resistance) and in accordance with governmental regulation, however it is necessary to pay attention while connecting products to the circuit with appliances that create electromagnetic disturbances (nearby conductors, motors, or power cables). It is recommended to have the connection wires of a product (supply and operating inputs) as short as possible. In case of connecting product into a circuit with inductive loads, it is necessary to protect the product by adequate external RC varistor or surge voltage protectors.

## 3) Handling and use

- use a screwdriver with an approximate tip width of 2mm for installation and setting.  
- so the inner construction of the device is not damaged, do not use brute force to screw input terminals (maximally 0.8M/m), and do not use excessive force on the holding parts of terminals.

- protect the device from drops and excessive vibrations.

- do not overload relay output contacts, mainly while using loads of another category than AC-1

- if contacts of relay weld while switching large loads,

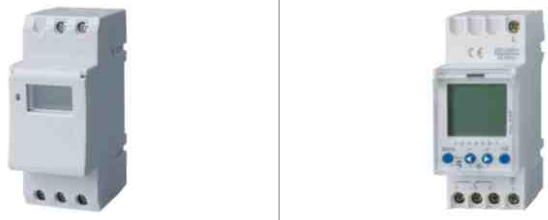
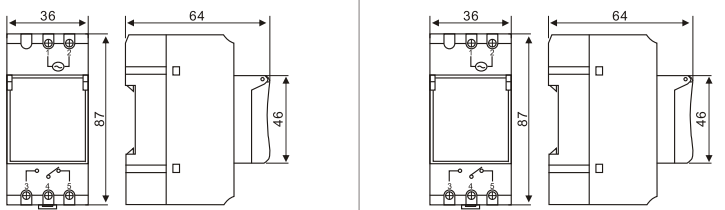

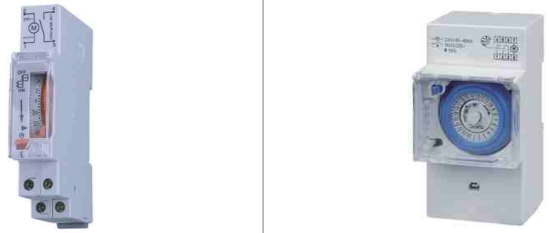
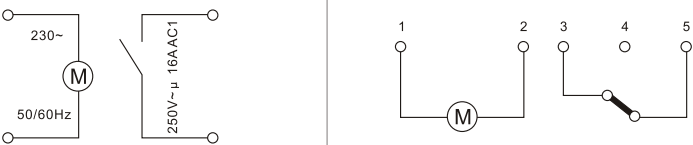
it is necessary to use a contactor or power relay rated for required load in the installation.


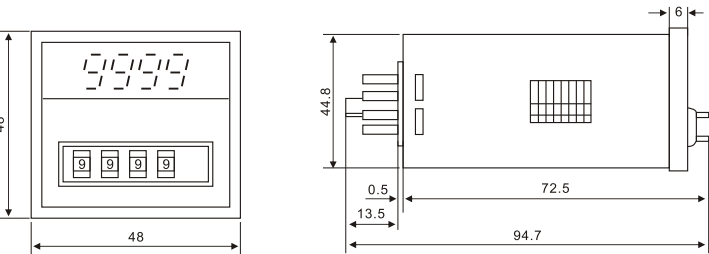
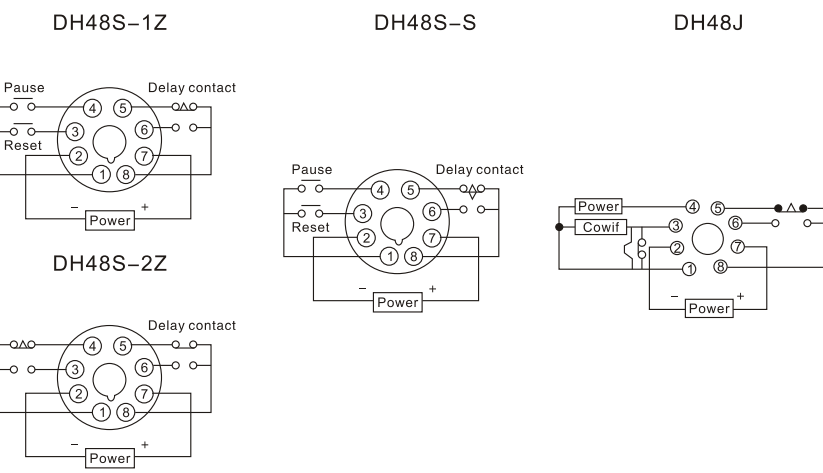
All timers and monitoring relays in our assortment are equipped by protective elements against possible over-voltage in the mains. The nominal voltage of applied varistors is 275V. During short-time over-voltage peaks, the varistor lowers its leakage resistance and accumulates the grown over-voltage peaks. In case this over-voltage has a character of short-time peak, varistor is able to react repeatedly this way and thus non-destructively protect a device against these negative influences. Other protective elements that are used in devices are Zener diodes, which eliminate over-voltage pulses, and are installed in supply and input circuits of the device (for example when switching inductive loads). In case of switching loads of inductive character, it is recommended to separate supply of output elements (motors, contactors, etc.) from supply of monitoring and controlling inputs.

## Specifications@25°C



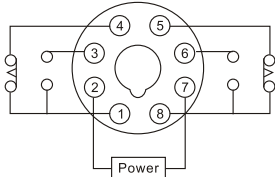
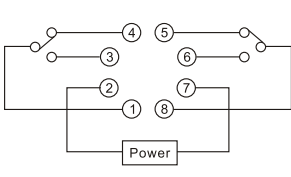
Output characteristics	
Type of contacts	SPDT or DPDT
Contact material	Silver Alloy
Current rating	15A@240VAC, 24VDC
Switching voltage	240V 50/60Hz
	24VDC
	1/2HP@120V 50/60Hz 1HP@240V 50/60Hz B300 Pilot Duty
Minimum switching requirement	100mA
Indication	Red LED
Input characteristics	
Voltage range	12 to 240VDC 50/60Hz
Operating range(% of Nominal)	85% to 110%
Maximum consumption	3VA(AC)
	1.7W(DC)
	Green LED
Timing characteristics	
Functions available	10
Time scales	10
Time ranges	0.1 sec to 10 days
Tolerance(mechanical setting)	5%
Repeatability(constant voltage and Temperature)	0.2%
Reset time(Maximum)	150ms
Trigger pulse length(Minimum)	50ms
Performance characteristics	
Electrical life(Operations@Rated Current)	100,000 cycles(resistive)
Mechanical life(Unpowered)	10,000,000 Cycles
Dielectric strength	Input to Contacts 2500VAC
	Between Open Contacts 1000VAC
Terminal wire capacity	14AWG(2.1mm)
Terminal torque(Maximum)	7.1 lbf in (0.8Nm)
Environment	
Product Certifications	CE, RoHS
Ambient Air Temperature around the device	Storage -30 to +70 (-22 to +158 F)
	Operation -20 to +55 (-4 to +131 F)
Degree of Protection	IP20
Weight	6.5 Grams (2.3 oz)



	Load							
Relay contact 15A						AC1	AC3	AC5
AgNi	1000W					4000VA	0.9kW	750VA
								15A/0.5A/0.35A

	DHC15	SUL810
<b>Feature</b>	 <p>Can be directly connected, with small size, low power consumption, big operating temperature range, anti-interference ability and so on. Three are functions such as adjust the time and countdown.</p>	
Rated voltage	AC110V/220V 50/60Hz	AC11V/220V 50/60Hz
Resistive load siwtching capacity	16A	16A
Contact	SPDT	SPDT
Power Consumption	< 2VA	< 2VA
Display	LCD	LCD
Switching frequency	16 ON & 16 Off	16 ON & 16 Off
Min. switching time	1min	1S
Timing range	1min-168hour	1S-168hour
Timing error	< ±0.5s/d	< ±0.5s/d
Electrical life	10 <sup>8</sup> (Rated load)	10 <sup>8</sup> (Rated load)
Mechanical life	10 <sup>7</sup>	10 <sup>7</sup>
Ambient temperature	-20~+80℃	-20~+80℃
Relative humidity	< 95%RH	< 95%RH
Dimensions		
Connection diagram		
	SUL180	SUL181
<b>Feature</b>	 <p>Can be directly connected, with small size, low power consumption, big operating temperature range, anti-interference ability and so on. Three are functions such as adjust the time and countdown.</p>	
Voltage	AC110/220V 50/60Hz	AC110/220V 50/60Hz
Contact	SPST	SPST
Operation	Times operation	Times operation
Timing range	Circuation of day	Circuation of day
Connection diagram		

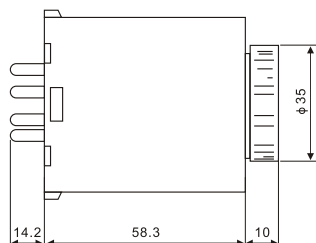
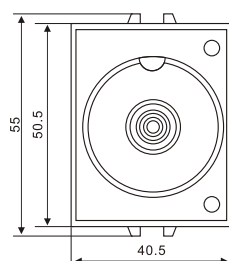
	DH48S	DH48S-S	DH48J
<b>Feature</b>	 <p>DH48S introduce aboard technology, supply advanced great-scale special IC and LED, according to aboard technology standard, can replace H5CN of OMRON company and same products, the product have beautiful outlook, wide time range, high precision, low power consumption, long life, big contact capacity virtues etc, are used in controlling element of auto control system.</p>		
Rated voltage	VAC:110-220-380V;VDC:12-24		VAC12-380V;VDC12-24V
Contact rating	VAC220V 5A		
Mechanical life	10 <sup>7</sup> time		
Electrical life	10 <sup>8</sup> time		
Ambient temperature	-10~+50℃		
Power consumption	5W		
Operation type	DH48S-1Z	DH48S-2Z	DH48S-S
Operation	On-delay		Repeat cycle
Output contact	SPDT	DPDT	SPDT
Timing range	0.01S-9999H		1-9999(×1, ×10, ×100) Through the switch on plate
Dimensions	 <p>Note: Open size 45 × 45</p>		
Connection diagram			



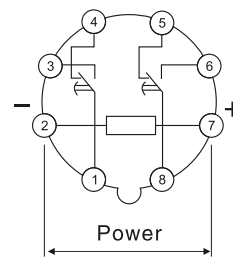
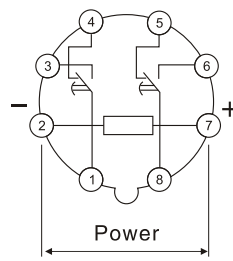
	H3BA	H3CR-A8/A
<b>Feature</b>		
Rated voltage	AC12-240V 50/60Hz DC12-24V	AC12-380V 50/60Hz DC12-110V
Contact	One inst,One delay output	DPDT
Operation	Time-limit operation/ Self-resetting/external resetting	On-delay
Timing range	(S,M,H,10H) 0.05-0.5,0.5-5H,0.1-1,1-10H 0.5-5,5-50H,1-10,10-100H	0.05-300H
Connection diagram		

	ST3PA	ST3PC
<b>Feature</b>		
Resistive accuracy	<0.5%+20ms	
Contact rating	AC220V 10A	
Rated voltage	VAC:110-220-380V;VDC:12-24-48V	
Operation type	On-delay	
Output contact	DPDT	One inst One delay output
Timing range	A:0.05-0.5S/5S/30S/3M B:0.1-1S/10S/6S/6M C:0.5/5S/50S/5M/30M D:1-10S/100S/10M/60M E:5-60S/10M/60M/6H F:0.25-2M/20M/2H/12H G:0.5-4M/40M/4H/24H	

Dimensions



Connection diagram



ST3PA

ST3PC

VOLTAGE / AMPERE / Hz



**New**

## Feature

- ◆ Φ22/25mm Panel round Shape short-housing meter;
- ◆ SMD,high performance,low cost,low power consumption,Various field usage;
- ◆ IP66 Protective degree(Surface) conform to IEC60529
- ◆ Additional Anti-humidity,Anti-Dust and Anti-Corrosive functions
- ◆ Finger-proof terminal protective housing IP20;
- ◆ CE certificate;
- ◆ OEM,ODM welcome;


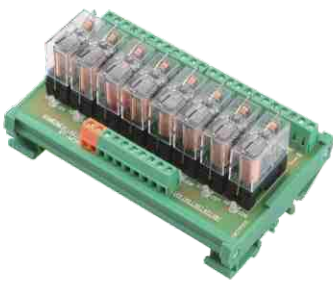
## Digital Ampere/Voltage Meter

- ◆ Mini Round-Surface Shape Digital Current/Voltage Meter;
- ◆ 2 lines(one for measuring and the other for power),3digit display indicating AC/DC volt(it is not only volt meter but also signal indicator), wide volt range:AC65~480V(RED light source), DC9~48V(Green color light source);
- ◆ Additional AC(RED Light source)and DC(Green Light Source)current meter with 4 line operation;
- ◆ Additional Signal Display Indicator:V/dc,V/ac,A/dc,A/ac;
- ◆ Current Meter also can be for off-line load Purpose;

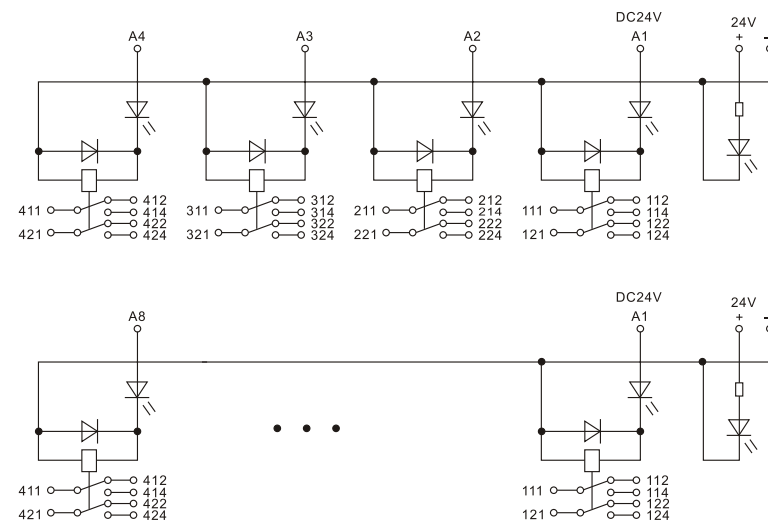
## Technical characteristics

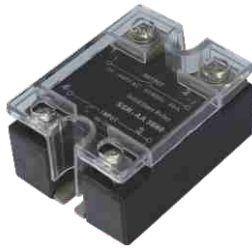


Model	MDV-D volt meter	MDV-A volt meter	MDA-D ampere meter	MDA-A ampere meter
Input mode	DC	AC	DC Current	AC Current
measuring/power range	DC9~48V	AC65~480V	0~36A Additional C/T	0~50A Additional C/T 0~100A Additional C/T
Digit Display	00.0~48.0	000~480	00.0~36.0	00.0~50.0/00.0~100.0
Color	R,G,Y,B	R,G,Y,B	R,G,Y,B	R,G,Y,B
Accuracy	±0.1%	±1%	±0.1%	±5%
Terminal	2 × M3.5 Screw	2 × M3.5 Screw	4 × M3.5 Screw	4 × M3.5 Screw
Sampling period	0.5s			
Display mode	3 digit 7 channel LCD			
power	10Ma Max			
Life	50000hrs			
Temperature	-25~+55℃			



Type	MR4-1	MR8-1
Spencification:4×24V DC/2J Ordering number		
Number of Relay	1,2,4,8,12,16,24	
Input voltage and rated voltage	DC12V,DC24V AC220V	
Maximum voltage	Rating value 100%	
Rating current	5A,8A,10A,16A	
Drop-out voltage	Rating voltage 70%max	
Release voltage	Rating voltage 15%	
Consumption	min360mw	
Output contact end Type of contact	Two-pole/PC,single contact,two switches	
Material of contact	AgCdO	
Max switch voltage	380V AC,125V	
Ratinig current	DC4A	
Load of resistance	1000VA,120W	
Load of resistance L/R=7MS	375VA,75W	
Absorption delay	15ms max	
Return delay	AC:10ms max,DC:5ms max	
Highest motive frequency	1800Times/hour	
Tex compression	Coil and contact 5,000 VAC 50Hz one minute	
Mechanical life	Switch motion for $2 \times 10^7$ times	
Electric life	Switch motion for $2 \times 10^5$ times	
Storing temperature	-40℃ ~ +55℃	
Working temperature	-25℃ ~ +40℃	
Environmental humidity	As moving:35 ~85%	

Circuit diagram



Type	SSR-AA/DA/DD	SSR-AA/DA/DD	SSR3-AA/DA
			
负载电压Load voltage(V)	220/380/480/600V	220/380/480/600V	220/380/480/600V
负载电流Load current(A)	10,15,20,25,40,60,80,100,120,200	10,15,20,25,40,60,80,100,120,200	10,15,20,25,40,60,80,100,120
控制电压Control voltage(V)	6-32VDC	6-32VDC	6-32VDC

说明Instruction



1、负载10A以上，必须安装散热器，80A以上必须加风扇强冷或冰冷。

1.The load above 10A must install radiator,and mabove 80A must add fan to force add or cold with water.

2、控制感性负载时请在输出端并接压敏电阻，取值为负载电压的1.6-1.9倍

2.When control sensitive load,please add pressde resistance to output terminal,the value is 1.6-1.9 times of load voltage.

散热器 Heat sink for SSR

		
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安装支架 SSR mouting clips

