

Electromagnetic Relay



GOODSKY®

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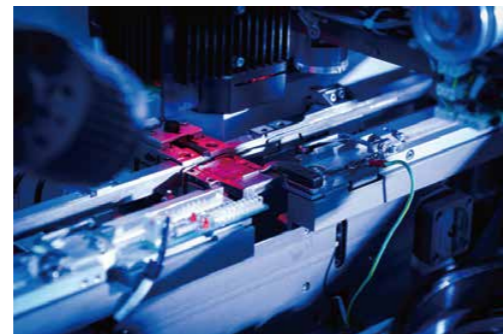


GENERAL PURPOSE RELAY
AUTOMOTIVE RELAY
SIGNAL RELAY
PLUG IN RELAY
SOCKETS & ACCESSORIES

Your Reliable Partner

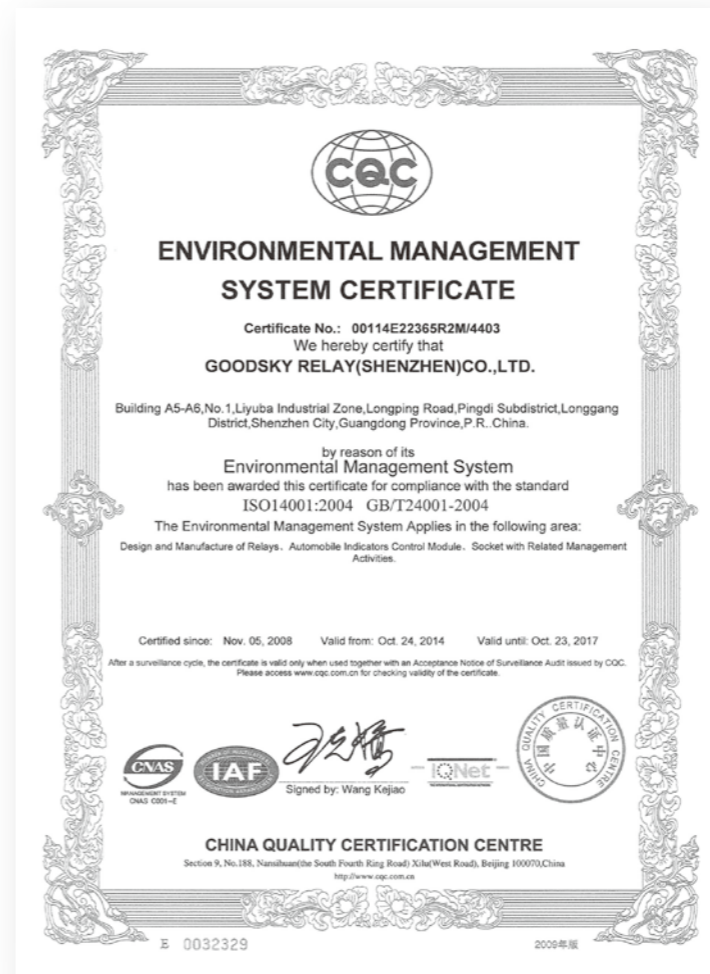
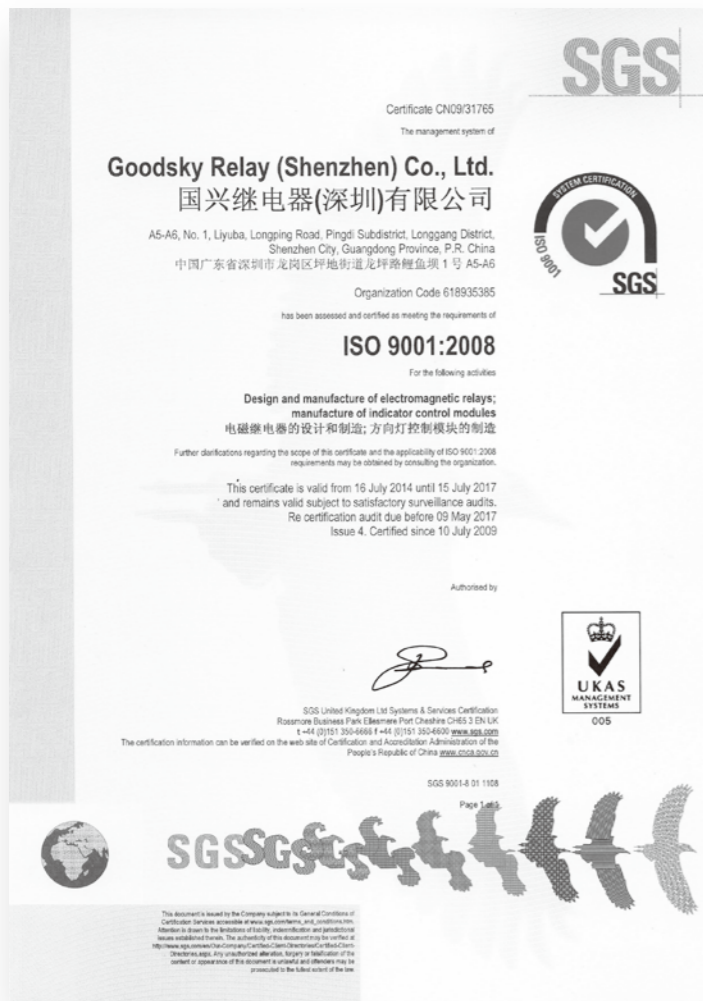
品質政策 Quality Policy

- 品質優先 We make quality in priority
- 交期嚴守 We keep delivery on time
- 把握現在 We hold every chance for present
- 展望未來 We view every prospect for the future



Company History

- 2013 ~ 2014**
 - Introduce relays accordance with Halogen-Free plus IEC 60335-1 Glow Wire requirements for home appliances.
 - Monthly production capacity was increased to 15 million pieces.
- 2011 ~ 2012**
 - Headquarter was moved to Taichung City, Taiwan, synergy with ECE group
 - Automation line was launched
- 2010 ~ 2011**
 - Halogen-Free technology was implemented in massive production
- 2008 ~ 2009**
 - Introduction of Halogen-Free products
 - Automatic parameter adjustments and automatic assembly process were implemented
- 2007 ~ 2008**
 - Shenzhen factory was moved to new location with 27,000 square meters
 - Monthly production capacity was increased to 10 million pieces
 - New relay series of EML, GCJ, GZR and GIN were launched
- 2006 ~ 2007**
 - Implementation of RoHS-Compliant
 - New production lines were launched at Suzhou factory. Production capacity reached 2 million pieces per month
 - New relay series of EZL, ZEM, EMF and LR were launched
- 2005 ~ 2006**
 - Good Sky was merged by ECE group
 - ISO/TS 16949 certified
- 2004 ~ 2005**
 - New relay series of JE and EMR were launched
- 2000 ~ 2003**
 - QS 9000 and ISO 9001 certified
 - Monthly production capacity was increased to 8 million pieces
 - Association contracts with Japanese leading relay manufacturer DEC (Daiichi Electric Corp)
 - Shenzhen factory was increased to 25,000 square meters
- 1999**
 - New models were introduced
 - ISO 9001 certified in Malaysian branch
 - Production capacity reached 5 million pieces per month
- 1997**
 - Good Sky was honored with "Golden Granite Award"
 - Shenzhen factory was increased to 20,000 square meters
- 1996**
 - Shenzhen factory was moved to new location with 11,000 square meters
 - ISO 9002 certified
- 1995**
 - Headquarter was moved to Xizhi City, New Taipei City
 - Monthly production capacity reached 2 million pieces
- 1994**
 - U.S. branch was founded
 - Monthly production capacity reached 1.5 million pieces
- 1992**
 - Shenzhen factory was founded with capital USD 1 million
 - Monthly production capacity reached 400,000 pieces
 - Production line was moved from Taipei, Taiwan to Shenzhen, China
- 1990**
 - Brand name "GOOD SKY" was established
- 1989**
 - Company was founded with capital NTD 1 million.



Selection Guide

Pole	Form			Terminal		Coil		Relay Model	Switching Current (A)									Size (mm) LxWxH	Page
	A	B	C	PCB	Plug-In	DC	AC		0	5	10	15	20	25	30	40			
1								AZ									15.4x10.4x11.7	132-133	
								UA									15.4x10.4x11.7	138-139	
								GCJ									20.4x7.0x15.0	34-35	
								JMT									15.7x12.2x13.7	36-38	
								JE									20.0x10.0x10.5	42-43	
								EMR									30.0x10.0x15.0	85-85	
								LR									28.0x5.0x15.0	38-39	
								GQ									18.2x10.0x14.9	66-67	
								SAM									17.2x12.1x16.2	114-115	
								MI									29.1x13.0x20.6	60-61	
								MIT									29.1x13.0x20.6	62-63	
								JQ									20.1x10.0x16.0	44-45	
								GJ									18.3x10.2x15.8	68-69	
								SMIT									24.5x10.5x24.8	40-41	
								AR									17.2x14.8x20.2	110-111	
								RW									19.0x15.4x15.0	70-71	
								RUDH									20.5x16.7x20.3	72-73	
								UDH									22.0x16.8x14.7	76-77	
								SFG									22.2x25.0x11.5	78-79	
								EMI-1P									29.0x12.6x15.8	50-51	
								EZI									29.0x12.6x15.8	56-59	
								JMW									15.7x12.2x13.7	120-121	
								RWH									19.0x15.4x15.0	70-71	
								RWM									19.0x15.4x15.0	116-117	
								RUUH									20.5x16.7x20.3	72-73	
								RUT									20.5x16.7x20.3	74-75	
								RET									27.6x21.1x35.0	152-157	
								ARW									17.2x14.8x20.2	112-113	
								SF									22.2x16.2x11.0	78-79	
								MIH									29.1x13.0x20.6	60-61	
								EML									29.0x12.6x15.7	80-81	
								GSZ									24.5x13.0x25.0	96-97	
								GZ/GZT									29.1x13.0x20.6	92-93	
								EZ									29.0x12.6x15.8	53-55	
								JM									15.7x12.2x13.7	118-119	
								GZR									28.8x12.7x25.5	88-91	
								EMF									44.5x12.6x15.7	86-87	
								GI									30.2x16.2x26.0	106-107	
								GU									32.1x27.5x20.0	98-101	
								GL									67.0x33.0x35.0	108-109	
								ZEM									21.4x15.5x23.5	124-125	
								RPT									38.0x34.5x47.6	158-161	
								GIN									14.2x7.3x13.6	122-123	
								CAR									23.1x18.0x19.5	126-129	
							GRL									28.0x28.0x25.0	130-131		
1								AZ								15.4x10.4x11.7	132-133		
								ST								12.6x7.8x10.0	134-135		
								UA								15.4x10.4x11.7	138-139		
								JE								20.0x10.0x10.5	42-43		
								GJ								18.3x10.2x15.8	68-69		
								EMR								30.0x10.0x15.0	82-85		
								LR								28.0x5.0x15.0	38-39		
								SAM								17.2x12.1x16.2	114-115		
								MI								29.1x13.0x20.6	60-61		
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								UDH								19.0x15.4x15.0	76-77		
							RWH								22.0x16.8x14.7	70-71			




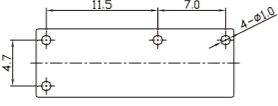
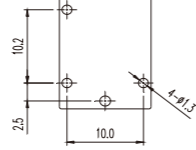
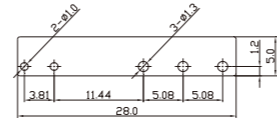



Pole	Form			Terminal		Coil		Relay Model	Switching Current (A)									Size (mm) LxWxH	Page
	A	B	C	PCB	Plug-In	DC	AC		0	5	10	15	20	25	30	40			
1								EMI-1P									29.0x12.6x15.8	50-51	
								EZI									29.0x12.6x15.8	56-59	
								RWM									19.0x15.4x15.0	116-117	
								RUUH									20.5x16.7x20.3	72-73	
								RET									27.6x21.1x35.0	152-157	
								ARW									17.2x14.8x20.2	112-113	
								MIH									29.1x13.0x20.6	60-61	
								GZ/GZT									29.1x13.0x20.6	92-93	
								EZ									29.0x12.6x15.8	53-55	
								JM									15.7x12.2x13.7	118-119	
								GZR									28.8x12.7x25.5	88-91	
								ZEM									21.4x15.5x23.5	124-125	
								RPT									38.0x34.5x47.6	158-161	
								GU									32.1x27.5x20.0	98-101	
2								GIN								14.2x7.3x13.6	122-123		
								CAR								23.1x18.0x19.5	126-129		
								GRL								28.0x28.0x25.0	130-131		
								MI-2P									29.1x12.8x20.6	64-65	
								GSA									24.5x13.0x25.0	94-95	
								MRE									22.8x18.4x27.0	140-141	
								RE									27.6x21.1x36.0	142-147	
								EMI-2P									29.0x12.6x15.8	46-49	
								RK									34.3x34.3x53.0	148-151	
								RET									27.6x21.1x35.0	152-157	
								JMW									15.7x12.2x13.7	120-121	
								RP									38.0x34.5x47.6	158-161	
								SAM									17.2x23.1x16.2	114-115	
								JM									15.7x12.2x13.7	118-119	
2								RPT								38.0x34.5x47.6	158-161		
								GIN								14.2x7.3x13.6	122-123		
								GL								67.0x33.0x35.0	108-109		
								GRL								28.0x28.0x25.0	130-131		
								GS								20.5x10.4x11.7	136-13		
								MI-2P								29.1x12.8x20.6	764-65		
								MRE								22.8x18.4x27.0	140-141		
								RE								27.6x21.1x36.0	142-147		
								EMI-2P								29.0x12.6x15.8	46-49		
								RK								34.3x34.3x53.0	148-151		
3								RET								27.6x21.1x35.0	152-157		
								RP								38.0x34.5x47.6	158-161		
								RPT								38.0x34.5x47.6	158-161		
								RK								34.3x34.3x53.0	148-151		
3								RET								31.0x27.5x35.5	152-157		
								RP								38.0x34.5x47.6	158-161		
								RPT								38.0x34.5x47.6	158-161		
4								RE								27.6x21.1x36.0	142-147		
								RET								41.0x27.5x35.5	152-157		
4								RE								27.6x21.1x36.0	142-147		
								RET								41.0x27.5x35.5	152-157		

※ CAUTIONS




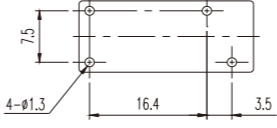
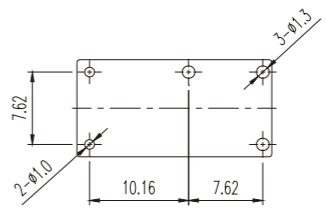
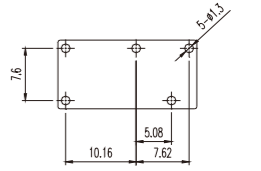



Please carefully read the below application notice.




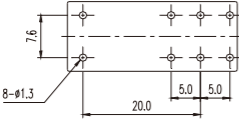
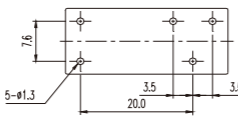
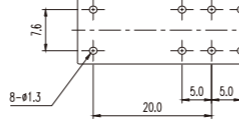



- ◎ Relay switch only has shift function - no protection function is equipped with. To avoid relay malfunctioning or burning problem causing by abnormal use, protective device on board is needed.
- ◎ Do not drop and disassemble relays, which will adversely affect their function and may even cause expiration, destruction, electric leakage, and burning problems.
- ◎ Do not give incorrect voltage to the coil. Each terminal should match the proper wire. Incorrect use would damage relay function and affect external circuit.
- ◎ Durability of relays could be affected by the condition (such like switching times, frequency, etc.,) of engineering setting. Therefore, please follow the use instruction illustrated in the standard specification content. Over spec using could cause performance decrease or increase the possibility of Relays burning out.
- ◎ Relays must be wired and welded properly, otherwise it might be over heated and burnt out when electrified.
- ◎ Relays will generate heat and spark in switch process. Therefore, it is strictly prohibited to use relays in any environments filled up with gas or inflammable gaseous.
- ◎ To avoid electric shock accident, do not touch the terminals and socket terminals when a relay is in electrified condition.

MEMO




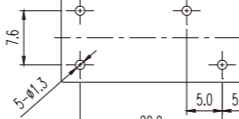
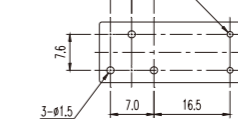
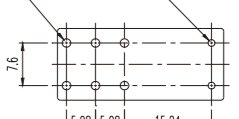



	GCJ	JMT	LR
Appearance			
Outline (L x W x H) mm	20.4 x 7.0 x 15.0	15.7 x 12.2 x 13.7	28.0 x 5.0 x 15.0
Weight	4g	5.2g	6g
Features	<ul style="list-style-type: none"> Sensitive coil 200mW 8mm insulation/clearance Halogen free available 	<ul style="list-style-type: none"> Dielectric Strength between coil & contact 1,000VAC Wash tight and flux proofed type available 	<ul style="list-style-type: none"> Slim size Wide switching capacity Sensitive coil 170mW Halogen free available
Contact Specification			
Contact Form	SPST	SPST	SPST/SPDT
Maximum Allowable Contact Current (A)	5A	5A	8A
Contact Capacity (Resistive Load)	5A/277VAC 5A/30VDC	5A/120VAC 5A/30VDC TV-5/120VAC	8A/277VAC 8A/30VDC
Reference Minimum Switching Load			
Coil Specification			
Nominal Coil Voltage (V)	DC	3, 5, 6, 9, 12, 15, 18, 24	3, 5, 6, 9, 12, 24
	AC	—	—
Coil Power Consumption	0.2W	0.54W	3-24V: 0.17W
Dielectric Strength			
Between Coil & Contact (50/60 Hz for 1 minute)	AC 4,000V	AC 1,000V	AC 4,000V
Between Contact (50/60 Hz for 1 minute)	AC 1,250V	AC 500V	AC 1,000V
Life Expectancy (Operations)			
Electrical	1 x 10 ⁵	1 x 10 ⁵	N.O: 5 x 10 ⁴ , N.C: 3 x 10 ⁴
Mechanical	5 x 10 ⁶	1 x 10 ⁷	5 x 10 ⁶
Safety Standard Certificate	UL, C-UL, VDE	NIL	UL, C-UL, VDE
P.C.B. Layout			
Mounting Method			
Page	34-35	36-37	38-39





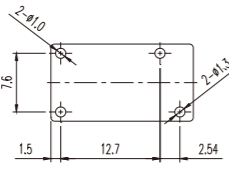
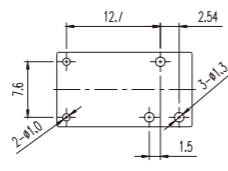


Note : Meaning of symbol marks  : PC board terminal;  : SMD terminal

	SMIT	JE	JQ
Appearance			
Outline (L x W x H) mm	24.5 x 10.5 x 24.8	20 x 10 x 10.5	20.1 x 10.0 x 16.0
Weight	10.2g	6.0 g	5.6g
Features	<ul style="list-style-type: none"> 6mm insulation with Surge Strength 7,000V TV-5 120VAC certified Halogen free available 	<ul style="list-style-type: none"> Low profile 10.5mm Sensitive Coil 200mW 5mm safety distance Halogen free available 	<ul style="list-style-type: none"> Small size with slim width Contact capacity is 10A Surge Resistance can be up to 8,000V Halogen free available
Contact Specification			
Contact Form	SPST	SPST/SPDT	SPST/SPDT
Maximum Allowable Contact Current (A)	10A TV-5	8A 5A	10A 10A
Contact Capacity (Resistive Load)	10A/30VDC 10A/250VAC TV-5/120VAC	1A: 8A/250VAC 8A/30VDC 1C: 5A/250VAC 5A/30VDC	1A: 10A/125VAC 5A/250VAC 5A/30VDC 1C: 10A/125VAC NC: 5A/125VAC
Reference Minimum Switching Load			
Coil Specification			
Nominal Coil Voltage (V)	DC	3, 5, 6, 9, 12, 24, 48	3, 5, 6, 9, 12, 24
	AC	—	—
Coil Power Consumption	DM Type: 0.54W LM Type: 0.25W	0.2W	DM / D Type: 0.45W TM / T Type: 0.4W LM Type: 0.2W
Dielectric Strength			
Between Coil & Contact (50/60 Hz for 1 minute)	AC 4,000V	AC 4,000V	AC 4,000V
Between Contact (50/60 Hz for 1 minute)	AC 900V	AC 1,000V	AC 1,000V AC 750V
Life Expectancy (Operations)			
Electrical	(TV-5) 2.5 x 10 ⁴	1 x 10 ⁵	1 x 10 ⁵
Mechanical	1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷
Safety Standard Certificate	UL, C-UL, TÜV, CQC	UL, C-UL, VDE	UL, C-UL, TÜV, VDE
P.C.B. Layout			
Mounting Method			
Page	40-41	42-43	44-45




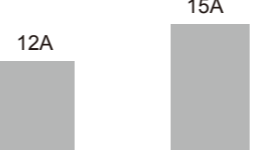
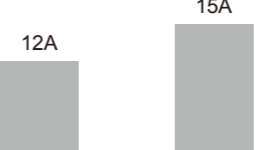

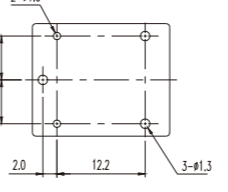
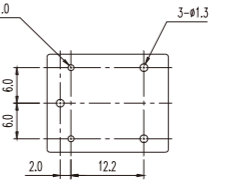
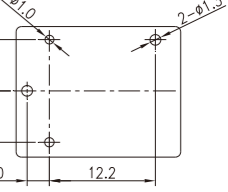



	EMI-2P (New structure)	EMI-1P	EZ	
Appearance				
Outline (L x W x H) mm	29.4 x 12.8 x 17.5	29.0 x 12.6 x 15.8	29.0 x 12.6 x 15.8	
Weight	14.2g	12.5g	12.5g	
Features	<ul style="list-style-type: none"> Switching current by 8A to comply with industrial use Slim type and low profile AC/DC Coil Halogen free available 	<ul style="list-style-type: none"> Switching current by 12A to comply with industrial use Slim type and low profile AC/DC Coil Halogen free available 	<ul style="list-style-type: none"> Switching current by 16A to up to 20A comply with industrial use Slim type and low profile AC/DC Coil Halogen free available 	
Contact Specification				
Contact Form	DPST/DPDT	SPST/SPDT	SPST/SPDT	
Maximum Allowable Contact Current (A)	8A	12A	20A	
Contact Capacity (Resistive Load)	8A/250VAC 8A/30VDC	12A/250VAC 12A/30VDC	20A/120VAC 1/2HP/250VAC 16A/250VAC 16A/30VDC	
Reference Minimum Switching Load				
Coil Specification				
Nominal Coil Voltage (V)	DC	5, 6, 9, 12, 15, 18, 24, 48, 60, 110	6, 9, 12, 15, 18, 24, 48, 60, 110	6, 9, 12, 15, 18, 24, 48, 60, 110
	AC	24, 115, 230	24, 115, 230	24, 115, 230
Coil Power Consumption	DC Coil: 0.4W~0.5W AC Coil: 0.61~0.88VA	DC Coil: 0.4W AC Coil: 0.61~0.88VA	DC Coil: 0.4W AC Coil: 0.61~0.88VA	
Dielectric Strength				
Between Coil & Contact (50/60 Hz for 1 minute)	AC 5,000V	AC 5,000V	AC 5,000V	
Between Contact (50/60 Hz for 1 minute)	AC 1,000V	AC 1,000V	AC 1,000V	
Life Expectancy (Operations)				
Electrical	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵	
Mechanical	1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷	
Safety Standard Certificate	UL, C-UL, TÜV, VDE, CQC	UL, C-UL, TÜV, VDE, CQC	UL, C-UL, TÜV, VDE, CQC	
P.C.B. Layout				
Mounting Method				
Page	46-49	50-52	53-55	



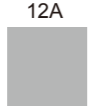
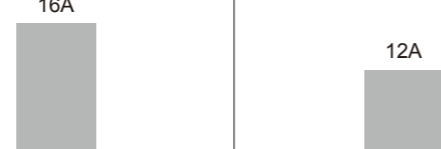
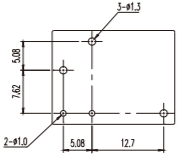
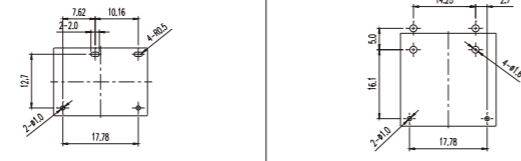


Note : Meaning of symbol marks  : PC board terminal



EZI	MI/MIH/MIT	MI-2P
		
29.0 x 12.6 x 15.8	29.1 x 13.0 x 20.6	29.1 x 12.8 x 20.6
15g	12.2g	13.8g
<ul style="list-style-type: none"> Switching current by 12A to comply with industrial use Slim type and low profile AC/DC Coil Halogen free available 	<ul style="list-style-type: none"> Conform to various safety standards TV-5, 600W for MIT Halogen free available 	<ul style="list-style-type: none"> Conform to various safety standards TV-3 rating Halogen free available
Contact Specification		
SPST/SPDT	SPST/SPDT	DPDT/DPST
12A	10A 16A	5A
12A/250VAC 12A/30VDC	MI 10A/250VAC 10A/30VDC MIT 10A/240VAC 5A/24VDC MIH 16A/240VAC 16A/24VDC	5A/250VAC 5A/30VDC TV-3/120VAC
Coil Specification		
6, 9, 12, 15, 18, 24, 48, 60, 110	3, 5, 6, 9, 12, 24, 48	3, 5, 6, 9, 12, 15, 18, 21, 24, 28, 48
24, 115, 230	—	—
DC Coil: 0.4W AC Coil: 0.61~0.88VA	D Type: 0.72 W L Type: 0.54W	D Type: 0.72 W L Type: 0.54W
Dielectric Strength		
AC 5,000V	AC 5,000V	AC 5,000V
AC 1,000V	AC 1,000V	AC 1,000V
Life Expectancy (Operations)		
1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵
1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷
UL, C-UL, VDE, CQC	MI: UL, C-UL, TÜV, VDE MIT/MIH: UL, C-UL, TÜV	UL, C-UL, TÜV, VDE
		
		
56-59	60-63	64-65






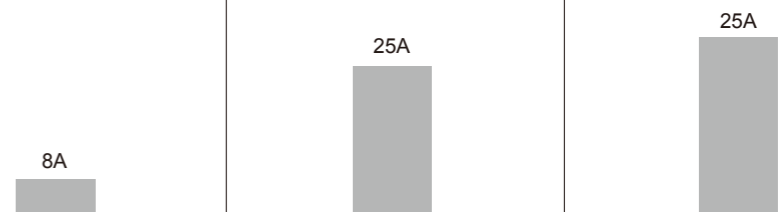
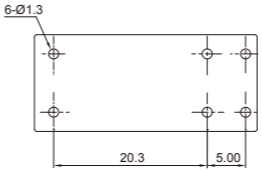
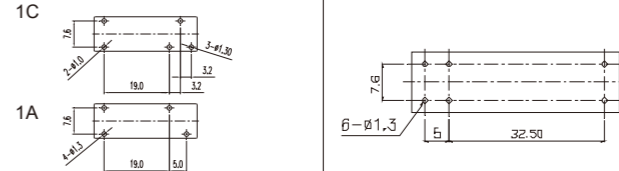


	GQ	GJ
Appearance		
Outline (L x W x H) mm	18.2 x 10 x 14.9	18.3 x 10.2 x 15.8
Weight	9g	5.4g
Features	<ul style="list-style-type: none"> Miniature size with high sensitive type 200mW, high contact reliability and sealed type Operating temperature up to 105°C Halogen free available. UL TV-5 	<ul style="list-style-type: none"> Miniature size with 10A contact capacity UL TV-5 rating certified Flux Proofed & Wash Tight Type available Halogen free available
Contact Specification		
Contact Form	SPST	SPST/SPDT
Maximum Allowable Contact Current (A)		
Contact Capacity (Resistive Load)	5A/250VAC 5A/30VDC	10A/250VAC 10A/30VDC 12A/125VAC TV-5/120VAC
Reference Minimum Switching Load		1A: TV-5/120VAC 10A/120VAC 10A/30VDC
Coil Specification		
Nominal Coil Voltage (V)	DC	3, 5, 6, 9, 12, 15, 24, 48
	AC	—
Coil Power Consumption	0.2W	D Type: 0.45W L Type: 0.2W
Dielectric Strength		
Between Coil & Contact (50/60 Hz for 1 minute)	AC 4,000V	DM: AC 3,000V D:AC 2,500V
Between Contact (50/60 Hz for 1 minute)	AC 1,000V	AC 1,000V
Life Expectancy (Operations)		
Electrical	1 x 10 ⁵	1 x 10 ⁵
Mechanical	1 x 10 ⁷	1 x 10 ⁷
Safety Standard Certificate	UL, C-UL, TÜV, VDE, CQC	UL, C-UL, TÜV
P.C.B. Layout		
Mounting Method		
Page	66-67	68-69




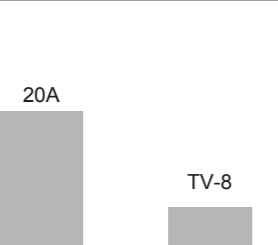
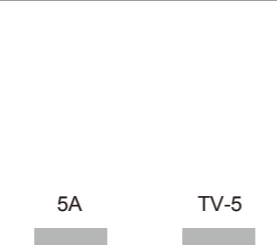
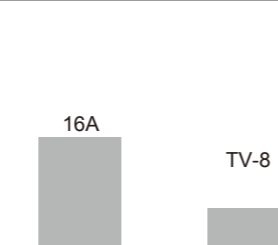
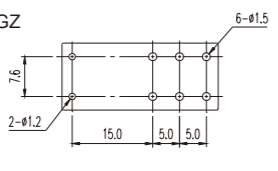
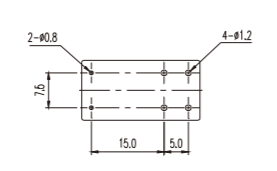
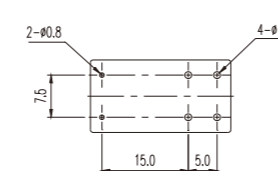



Note : Meaning of symbol marks  : PC board terminal;

	RW/RWH	RUDH/RUUh	RUT
Appearance			
Outline (L x W x H) mm	19.0 x 15.4 x 15.0	20.5 x 16.7 x 20.3	20.5 x 16.7 x 20.3
Weight	9g	12.2g	11.4g
Features	<ul style="list-style-type: none"> Sugar Cube Relay with high capacity Suitable for wide application Halogen free available 	<ul style="list-style-type: none"> Highly adapt to harsh condition High dielectric strength Halogen free available 	<ul style="list-style-type: none"> Various types of rated loads certified Plastic material designed for various solution Halogen free available
Contact Specification			
Contact Form	SPST/SPDT	SPST/SPDT	SPST
Maximum Allowable Contact Current (A)			
Contact Capacity (Resistive Load)	RW: 12A/120VAC 10A/24VDC	RWH: 1800W 15A/120VAC TV-5/120VAC	RUDH: 12A/120VAC 12A/24VDC
Reference Minimum Switching Load		RUUH: 15A/120VAC 15A/30VDC	TV-5/120VAC 15A/125VAC 10A/250VAC 5A/30VDC
Coil Specification			
Nominal Coil Voltage (V)	DC	3, 5, 6, 9, 12, 18, 24, 36, 48	3, 5, 6, 9, 12, 15, 18, 24, 48
	AC	—	—
Coil Power Consumption	0.36W	3-24V: 0.45W 48V: 0.51W	3-24V: 0.36W 48V: 0.51W
Dielectric Strength			
Between Coil & Contact (50/60 Hz for 1 minute)	AC 1,000V	AC 1,500V	AC 1,500V
Between Contact (50/60 Hz for 1 minute)	AC 500V	AC 750V (2,000VAC)	AC 750V
Life Expectancy (Operations)			
Electrical	1 x 10 ⁵	1 x 10 ⁵	2.5 x 10 ⁴ (TV rated load)
Mechanical	1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷
Safety Standard Certificate	UL, C-UL, TÜV, CQC	UL, C-UL, TÜV	NIL
P.C.B. Layout			
Mounting Method			
Page	70-71	72-73	74-75



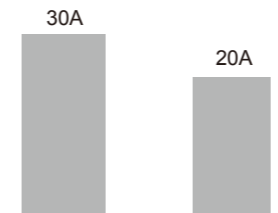

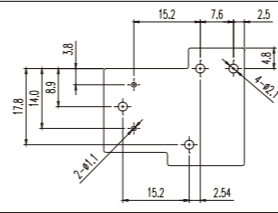
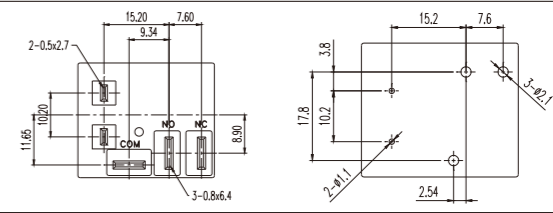

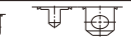
	UDH	SF/SFG	
Appearance			
Outline (L x W x H) mm	22.0 x 16.8 x 14.7	SF: 22.2 x 16.2 x 11.0	SFG: 22.2 x 25.0 x 11.5
Weight	9.5g	SF: 8.5g	SFG: 9g
Features	<ul style="list-style-type: none"> Insulation distance 4mm 12A switching capacity Flux Proofed & Wash Tight type available 	<ul style="list-style-type: none"> Small size with 16A capacity Flux Proofed & Wash Tight type available Halogen free available 	
Contact Specification			
Contact Form	SPST/SPDT		SPST
Maximum Allowable Contact Current (A)			
Contact Capacity (Resistive Load)	12A/120VAC 12A/24VDC		SF: 15A/125VAC 10A/277VAC TV-5/120VAC SF: 16A/250VAC TÜV 15A/24VDC SFG: 12A/125VAC 10A/277VAC 10A/24VDC
Reference Minimum Switching Load			
Coil Specification			
Nominal Coil Voltage (V)	DC	3, 5, 6, 9, 12, 24, 48	5, 6, 9, 12, 18, 24, 48, 100
	AC	—	—
Coil Power Consumption	3-24V: 0.45W 48V: 0.66W		5-48V: 0.20W 100V: 0.56W
Dielectric Strength			
Between Coil & Contact (50/60 Hz for 1 minute)	AC 2,000V		AC 1,500V
Between Contact (50/60 Hz for 1 minute)	AC 750V		AC 1,000V
Life Expectancy (Operations)			
Electrical	1 x 10 ⁵		1 x 10 ⁴
Mechanical	1 x 10 ⁷		1 x 10 ⁷
Safety Standard Certificate	UL, C-UL		SF: UL, C-UL, TÜV SFG: NIL
P.C.B. Layout			
Mounting Method			
Page	76-77		78-79




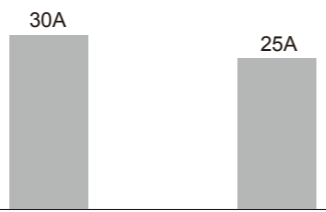
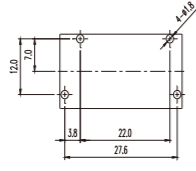
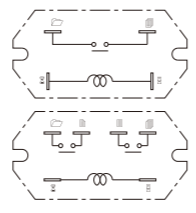


Note : Meaning of symbol marks  : PC board terminal;  : PC board terminal or Plug

EML	EMR	EMF	GZR
			
29.0 x 12.6 x 15.7	30 x 10 x 15	H Type: 44.5 x 12.6 x 15.7 V Type: 41 x 12.6 x 15.7	28.8 x 12.7 x 25.5
12.5g	11.0 g	14g	17g
<ul style="list-style-type: none"> Slim type and low profile Tungsten Load: 3000VA/230VAC DC Coil 	<ul style="list-style-type: none"> Dielectric Strength up to 4,000VAC 8mm safety distance between coil and contact Two pinning types available: 3.2mm and 5.0mm 	<ul style="list-style-type: none"> Switching current by 25A to comply industrial use Coil terminal, contact terminal for PCB 	<ul style="list-style-type: none"> 8mm insulation distance/clearance High capacity (25A) type available Halogen free available
Contact Specification			
SPST		SPST/SPDT	
			
16A/277VAC		8A/250VAC 5A/30VDC	
		25A/250VAC 25A/30VDC	
		20A/277VAC 20A/30VDC 25A/125VAC TV-10/120VAC 1HP 250VAC	
Coil Specification			
3, 5, 6, 9, 12, 15, 18, 24, 48, 60		3, 5, 6, 9, 12, 18, 24, 48, 60	
—		—	
0.4W		0.22W	
		0.4W	
		D Type: 0.72W L Type: 0.53W	
Dielectric Strength			
AC 5,000V		AC 4,000V	
AC 1,000V		AC 1,000V	
		AC 5,000V	
		AC 1,000V	
Life Expectancy (Operations)			
5 x 10 ⁴		1 x 10 ⁵	
5 x 10 ⁶		1 x 10 ⁷	
UL		UL, C-UL, VDE	
			
			
80-81		82-85	
		86-87	
		88-91	








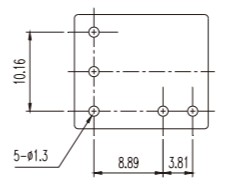
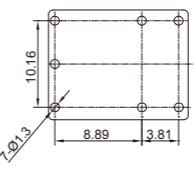
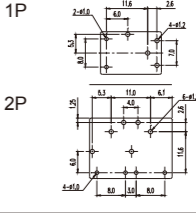



	GZ/GZT	GSA	GSZ	
Appearance				
Outline (L x W x H) mm	29.1 x 13.0 x 20.6	24.5 x 13.0 x 25.0	24.5 x 13.0 x 25.0	
Weight	13.2g	13.8g	13.6g	
Features	<ul style="list-style-type: none"> High current switching by 20A Insulation distance 8mm GZT series certified by TV-8 rating Halogen free available 	<ul style="list-style-type: none"> UL TV-5 rating is recognized 2 change over contacts in slim size 6mm insulation/clearance 	<ul style="list-style-type: none"> High current 16A in small size SS & SH types are available for customer's various selection UL TV-8 rating is recognized 	
Contact Specification				
Contact Form	SPST/SPDT	DPST	SPST	
Maximum Allowable Contact Current (A)				
Contact Capacity (Resistive Load)	GZ: 20A/120VAC, 20A/24VDC GZT: 16A/250VAC, 16A/24VDC, TV-8/120VAC	5A/250VAC, 5A/30VDC, TV-5/120VAC	16A/120VAC, 16A/30VDC, TV-8/120VAC	
Reference Minimum Switching Load				
Coil Specification				
Nominal Coil Voltage (V)	DC	3, 5, 6, 9, 12, 24, 48	3, 5, 6, 9, 12, 24, 48	3, 5, 6, 9, 12, 24, 48
	AC	—	—	—
Coil Power Consumption	D Type: 0.72W L Type: 0.54W	0.54W	0.54W	
Dielectric Strength				
Between Coil & Contact (50/60 Hz for 1 minute)	AC 5,000V	AC 3,000V	AC 4,000V	
Between Contact (50/60 Hz for 1 minute)	AC 1,000V	AC 1,000V	AC 1,000V	
Life Expectancy (Operations)				
Electrical	(TV-8) 2.5 x 10 ⁴	(TV-5) 2.5 x 10 ⁴	(TV-8) 2.5 x 10 ⁴	
Mechanical	1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷	
Safety Standard Certificate	UL, C-UL, TÜV, VDE	UL, C-UL, TÜV	UL	
P.C.B. Layout				
Mounting Method				
Page	92-93	94-95	96-97	




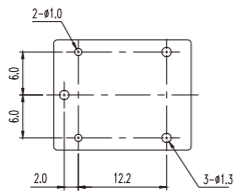
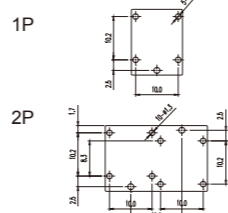



Note : Meaning of symbol marks  : PC board terminal

GU	GU (Quick Contact Tab)		
			
32.1 x 27.5 x 20.0	50.0 x 26.9 x 28.2		
27.2g	34.6g	32.6g	34g
<ul style="list-style-type: none"> High current 30A(N.O.) with one make contact is designed Dust cover, sealed & unclosed cover types available Halogen free available. UL TV-8 	<ul style="list-style-type: none"> High current 30A(N.O.) with one make contact is designed Quick connect terminal and Flanged case are designed 		
SPST/SPDT		SPST/SPDT	
			
DM: 30A/240VAC, 30A/30VDC, 30A/120VAC D: 20A/240VAC, 20A/30VDC		DM: 30A/240VAC, 30A/30VDC D: 20A/240VAC, 20A/30VDC	
5, 6, 9, 12, 15, 18, 24, 36, 48, 110		5, 6, 9, 12, 15, 18, 24, 36, 48, 110	
—		—	
0.93W		0.93W	
AC 1,500V		AC 1,500V	
AC 1,500V		AC 1,500V	
1 x 10 ⁵		1 x 10 ⁵	
1 x 10 ⁷		1 x 10 ⁷	
UL, C-UL		UL, C-UL, TÜV 12/24DMQ only	
			
			
98-101	102-105		

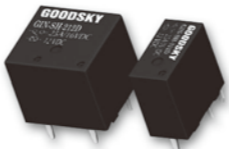



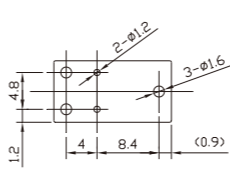
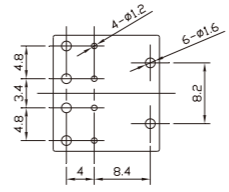
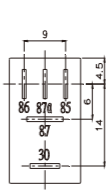
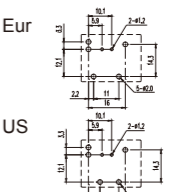




	GI	GL
Appearance		
Outline (L x W x H) mm	30.2 x 16.2 x 26	67 x 33 x 35
Weight	26.6g	90g
Features	<ul style="list-style-type: none"> One Pole Power Relay with tab terminal suitable for air conditioner Halogen free available 	<ul style="list-style-type: none"> High resistance to noise High contact capacity 30A High Dielectric Strength
Contact Specification		
Contact Form	SPST	SPST/DPST
Maximum Allowable Contact Current (A)		
Contact Capacity (Resistive Load)	TÜV: 25A/277VAC C-UL: 23A/277VAC	1P: 30A/250VAC 30A/277VAC 2P: 25A/250VAC 25A/277VAC
Reference Minimum Switching Load		
Coil Specification		
Nominal Coil Voltage (V)	DC: 6, 12, 24, 48 AC: —	6, 9, 12, 24, 48, 60, 100, 110 12, 24, 48, 100~120, 200~240
Coil Power Consumption	0.9W	DC Coil: 1.9W AC Coil: 1.7~2.5VA
Dielectric Strength		
Between Coil & Contact (50/60 Hz for 1 minute)	AC 4,000V	AC 4,000V
Between Contact (50/60 Hz for 1 minute)	AC 1,000V	AC 2,000V
Life Expectancy (Operations)		
Electrical	1 x 10 ⁵	1 x 10 ⁵
Mechanical	1 x 10 ⁷	1 x 10 ⁷
Safety Standard Certificate	UL, C-UL, TÜV	UL, C-UL, TÜV
P.C.B. Layout		
Mounting Method		
Page	106-107	108-109





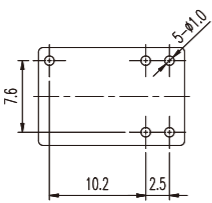
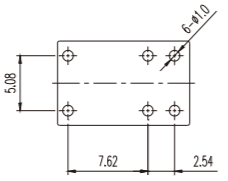
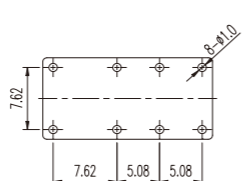
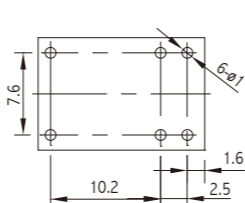




Note : Meaning of symbol marks  : PC board terminal;  : PC board terminal or Plug ;  : Plug-in

AR/ARW		SAM	
			
17.2 x 14.8 x 20.2		1P: 17.2 x 12.1 x 16.2	2P: 17.2 x 23.1 x 16.2
10g		8g	15.2g
<ul style="list-style-type: none"> Automotive Relays in small size with one or two transfer contacts Both open and sealed available 		<ul style="list-style-type: none"> Car use 40A Relay with one and two transfer contacts Flux proofed and wash tight type available 	
SPST/SPDT		SPST/SPDT/DPST/DPDT	
			
AR: 3A/120VAC 10A/12VDC	ARW: 5A/120VAC 15A/12VDC	1P: N.O. 10A/24VDC N.C. 7A/24VDC	2P: N.O. 15A/15VDC N.C. 10A/15VDC
10mA, DC 5V			
6,9,12,15,18,24		5, 6, 9, 12, 18, 24	
—		—	
Standard: 0.93W European: 1.1W		0.45W	
AC 1,000V		AC 1,000V	
AC 500V		AC 500V	
1 x 10 ⁵		1 x 10 ⁵	
1 x 10 ⁷		1 x 10 ⁷	
UL, C-UL		NIL	
			
			
110-111	112-113	114-115	



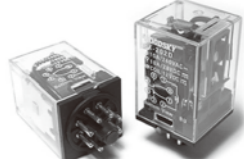
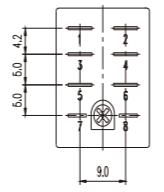
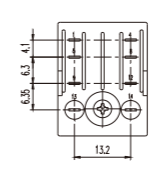
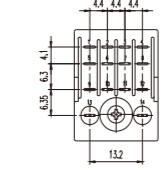
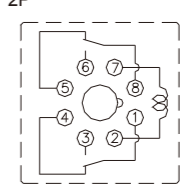
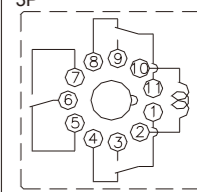




	RWM	JM	JMW
Appearance			
Outline (L x W x H) mm	19.0 x 15.4 x 15.0	1P: 15.7 x 12.2 x 13.7 / 2P: 15.7 x 24.2 x 13.7	
Weight	9.0g	1P: 5.2g / 2P: 10.2g	
Features	<ul style="list-style-type: none"> Designed for high rating VDC with PCB terminal Highly adapt to harsh working environment 	<ul style="list-style-type: none"> Application for automotive electrical systems JM/JMW-2P is consisted of 2 pieces of JM/JMW-1P and capsulated by one cover and the location of terminals are distributed for easy pattern design on N.O. and N.C. Contact terminal 	
Contact Specification			
Contact Form	SPST/SPDT	SPST/SPDT/DPST/DPDT	SPST/2xSPST
Maximum Allowable Contact Current (A)	15A	20A	12A
Contact Capacity (Resistive Load)	15A/15VDC	1P: 20A/14VDC 10A/14VDC 2P: 20A/14VDC 10A/14VDC	1P: 2 x 6A/14VDC 2P: 2 x 6A/14VDC
Reference Minimum Switching Load			
Coil Specification			
Nominal Coil Voltage (V)	DC	9, 12, 24	6, 9, 10, 12, 24
	AC	—	—
Coil Power Consumption	0.8W	D Type: 0.8W L Type: 0.6W	
Dielectric Strength			
Between Coil & Contact (50/60 Hz for 1 minute)	AC 1,000V	AC 500V	
Between Contact (50/60 Hz for 1 minute)	AC 500V	AC 500V	
Life Expectancy (Operations)			
Electrical	1 x 10 ⁵	1 x 10 ⁵	
Mechanical	1 x 10 ⁷	1 x 10 ⁷	
Safety Standard Certificate	NIL	NIL	
P.C.B. Layout			
Mounting Method			
Page	116-117	118-119	120-121

Note : Meaning of symbol marks  : PC board terminal;

	GIN	ZEM	CAR	GRL
Appearance				
Outline (L x W x H) mm	14.2 x 7.3 x 13.6	14.2 x 15.5 x 13.6	21.4 x 15.5 x 23.5	23.1 x 18.0 x 19.5
Weight	4g	9g	20g	20.2g
Features	<ul style="list-style-type: none"> 25A motor lock load Small size with high rating Single and dual version available 	<ul style="list-style-type: none"> Comply to automotive system used with 30A switching load DC Coil with two type of sensitivity level available 	<ul style="list-style-type: none"> European and U.S.A footprints for different market needs Special contact material FE-130 is applied 	<ul style="list-style-type: none"> Different selection on cover with metal/plastic Highly adapt to heavy automotive load
Contact Specification				
Contact Form	SPST/DPST	SPDT/DPDT	SPST/SPDT	SPST/SPDT
Maximum Allowable Contact Current (A)	25A	30A	40A	40A
Contact Capacity (Resistive Load)	25A/16VDC	NO: 30A/12VDC 15A/24VDC NC: 20A/12VDC 10A/24VDC	40A/12VDC(D/DM) 30A/12VDC(L/LM)	1P: N.O.: 40A/12VDC N.C.: 30A/12VDC 2P: 40A(20Ax2)/12VDC
Reference Minimum Switching Load				
Coil Specification				
Nominal Coil Voltage (V)	DC	9, 12, 24, 48	12, 24	6, 12, 24, 36, 48
	AC	—	—	—
Coil Power Consumption	9~24V: 0.64W 48V: 0.8W	D Type: 1.6W L Type: 1.2W	D Type: 1.59~1.89W L Type: 0.6W	1.8W
Dielectric Strength				
Between Coil & Contact (50/60 Hz for 1 minute)	AC 500V	AC 500V	AC 1,200V	AC 1,000V
Between Contact (50/60 Hz for 1 minute)	AC 500V	AC 500V	AC 750V	AC 500V
Life Expectancy (Operations)				
Electrical	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵
Mechanical	1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷
Safety Standard Certificate	NIL	NIL	NIL	NIL
P.C.B. Layout				 Eur US
Mounting Method				
Page	122-123	124-125	126-129	130-131

	AZ	ST	GS	UA
Appearance				
Outline (L x W x H) mm	15.4 x 10.4 x 11.7	12.6 x 7.8 x 10.0	20.5 x 10 x 11.5	15.4 x 10.4 x 11.7
Weight	3.5g	2g	4.8g	3.5g
Features	<ul style="list-style-type: none"> Small size with SPDT contact form Two type of power consumption 0.2W and 0.45W available 	<ul style="list-style-type: none"> Small size with light weight Various Coil Sensitivity types available Wide operation Coil Voltage range 	<ul style="list-style-type: none"> Two Poles in small package Dual-In-Line terminal arrangement Three types of power consumption available 	<ul style="list-style-type: none"> Small size with SPDT contact form Flux Proofed & Wash Tight type available
Contact Specification				
Contact Form	SPST/SPDT	SPDT	DPDT	SPST/SPDT
Maximum Allowable Contact Current (A)	1A	2A	2A	3A
Contact Capacity (Resistive Load)	1A/120VAC 1A/24VDC	2A/120VAC 2A/24VDC	1A/120VAC 2A/24VDC	3A/120VAC 3A/24VDC
Reference Minimum Switching Load	1mA, DC 1V	1mA, DC 5V	1mA, DC 1V	10mA, DC 5V
Coil Specification				
Nominal Coil Voltage (V)	DC	3, 5, 6, 9, 12, 24	3, 5, 6, 9, 12, 24	3, 5, 6, 9, 12, 24, 48
	AC	—	—	—
Coil Power Consumption	D Type: 0.45W L Type: 0.20W	D Type: 0.36W T Type: 0.20W L Type: 0.15W	D Type: 0.36W T Type: 0.20W L Type: 0.15W	0.36W
Dielectric Strength				
Between Coil & Contact (50/60 Hz for 1 minute)	AC 500V	AC 1,000V	AC 1,000V	AC 500V
Between Contact (50/60 Hz for 1 minute)	AC 500V	AC 400V	AC 500V	AC 500V
Life Expectancy (Operations)				
Electrical	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵
Mechanical	1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷
Safety Standard Certificate	UL, C-UL, TÜV	UL, C-UL, TÜV	UL, C-UL	UL, C-UL, TÜV
P.C.B. Layout				
Mounting Method				
Page	132-133	134-135	136-137	138-139

Note : Meaning of symbol marks  : PC board terminal;  : SMD terminal







MRE	RE		RK	
				
22.8 x 18.4 x 27.0	27.6 x 21.1 x 36.0		2P: 34.3 x 34.3 x 53.0	3P: 34.3 x 34.3 x 53.0
18g	32g	35g	72.6g	81.2g
<ul style="list-style-type: none"> Power Relay in miniature size up to 5A/120VAC capacity 2 Poles are designed with plug-in terminal 	<ul style="list-style-type: none"> Perfectly meet safety standard 2 and 4 transfer contact with high power capacity PC Board terminal and Plug-In terminal available Standard and Flanged casing 		<ul style="list-style-type: none"> Easy to mount, socket type Low coil power consumption with high response time 	
Contact Specification				
DPST/DPDT	DPST/DPDT	4PST/4PDT	DPDT/3PDT	
5A	5A	5A	10A	
5A/120VAC 5A/24VDC	5A/250VAC 5A/30VDC	5A/250VAC 5A/30VDC	2P/3P: 10A/240VAC	
6, 9, 12, 24, 48	6, 12, 24, 48, 60, 110, 120, 220	6, 12, 24, 48, 110, 120, 220, 240, 230	12, 24, 48, 110, 120	
0.9W	DC Coil: 0.9W~1.1W AC Coil: 0.96~2.01VA		DC Coil: 1.5W AC Coil: 1.6~2.41VA	
AC 1,000V	AC 1, 500V		AC 1,000V	
AC 500V	AC 1,000V		AC 1,000V	
1 x 10 ⁵	1 x 10 ⁵		1 x 10 ⁵	
1 x 10 ⁷	1 x 10 ⁷		1 x 10 ⁷	
NIL	UL, C-UL, VDE		UL, C-UL	
				
				
140-141	142-147		148-151	

		RET			
Appearance					
Outline (L x W x H) mm	27.6 x 21.1 x 35		31 x 27.5 x 35.5		41 x 27.5 x 35.5
Weight	35g		53.2g		66.5g
Features	<ul style="list-style-type: none"> Perfectly meet safety standard 1 to 4 transfer contact with high power capacity PC Board terminal and Plug-In terminals are available Standard and Flanged casing 				
Contact Specification					
Contact Form	SPST/SPDT	DPST/DPDT	3PST/3PDT	4PST/4PDT	
Maximum Allowable Contact Current (A)	15A	10A	10A	10A	
Contact Capacity (Resistive Load)	15A/250VAC 15A/30VDC	10A/250VAC 10A/30VDC 1/3HP 250VAC	10A/250VAC 10A/30VDC	10A/250VAC 10A/30VDC	
Reference Minimum Switching Load					
Coil Specification					
Nominal Coil Voltage (V)	DC	6, 12, 24, 48, 60, 110, 120			
	AC	6, 12, 24, 48, 110, 120, 220, 230, 240			
Coil Power Consumption	DC Coil: 0.9W AC Coil: 0.96~2.01VA		DC Coil: 1.4W AC Coil: 1.6~2.0VA (60HZ)	DC Coil: 1.5W AC Coil: 1.95~2.5VA(60HZ)	
Dielectric Strength					
Between Coil & Contact (50/60 Hz for 1 minute)	AC 1,500V				
Between Contact (50/60 Hz for 1 minute)	AC 1,000V				
Life Expectancy (Operations)					
Electrical	1 x 10 ⁵				
Mechanical	1 x 10 ⁷				
Safety Standard Certificate	UL, C-UL		NIL		
P.C.B. Layout					
Mounting Method					
Page	152-157				















RP	RPT			
38.0 x 34.5 x 47.6	38.0 x 34.5 x 47.6			
85g	85g			
<ul style="list-style-type: none"> 1 to 3 Poles with switching current up to 13A PCB terminal and 2 types of Plug-In terminal available 	<ul style="list-style-type: none"> 1 & 2 Poles with switching current up to 25A 3 Poles with switching current up to 20A Plug-In terminal with Flanged case available 			
DPST/DPDT/3PST/3PDT		SPST/SPDT/DPST/DPDT/3PST/3PDT		
13A		30A	25A	20A
10A/240VAC 13A/120VAC 13A/28VDC		1P: 30A/240VAC 30A/28VDC	2P: 25A/240VAC 13A/28VDC	3P: 20A/120VAC 13A/28VDC
		12, 24, 48, 110, 120		
		6, 12, 24, 120, 240		
		DC Coil: 1.2W AC Coil: 2.9~4.6VA		
		AC 1,500V		
		AC 1,000V		
		1 x 10 ⁵		
		1 x 10 ⁷		
NIL		UL, C-UL		
		158-161		

Note : Meaning of symbol marks : PC board terminal; : PC board terminal or Plug ; : Plug-in; : Plug-in

Optical

Products	MOS RELAY			MOS-FET DRIVER
Pictures				
Series	EPR4	EPR2	EPR3	EPV
Features	SOP package	DIP package	SMD package	DIP/SMD/SOP package
Outline Dimension (without terminals) LxWxH (mm)	4p:4.7x4.4x2	4p:4.7x6.4x3.4		(DIP/SMD) 4p:4.7x6.4x3.4 (SOP) 4p:4.7x4.4x2
	6p:6.3x4.4x2	6p:8.8x6.4x3.4		6p:8.8x6.4x3.4 6p:6.3x4.4x2
	8p:9.3x4.4x2	8p:9.78x6.4x3.4		8p:9.78x6.4x3.4 8p:9.3x4.4x2
Contact form	1A,1B,1C,2A,2B	1A,1B,1C,2A,2B	
Pin out	4pin, 6pin, 8pin			4pin, 8pin
Output	Voltage	20-600V	20-600V	8V
	Current	0.04-2.0A	0.05-3.0A	20μA
Control input	5-50mA	5-50mA		5-50mA
I/O Isolation voltage	1500VAC/ 2500VAC	2500VAC/ 3750VAC/ 5000VAC		SOP: 2500VAC DIP/SMD: 3750VAC
I.R.	5x10 ⁹ Ω	5x10 ⁹ Ω		5x10 ⁹ Ω
Time	T _{on} (Max.)	5ms	5ms	0.2ms
	T _{off} (Max.)	2ms	2ms	0.05ms
On-state resistance	0.1-60Ω	0.1-60Ω	
Option	For SOP, SMD type, Tape & Reel package available			
Others				

Solid State Relay

Products	PCB MOUNT	SLIM TYPE	MINI TYPE	POWER TYPE	3-PHASE TYPE	I/O MODULES			
Pictures									
Series	ESR2	ESR3	ESR4	ESR5	ESR6	ESR8			
Features	SIP standard package	SIP slim package	SIP mini package	1 phase power type	3 phase power type	I/O modules			
Outline dimension (without terminals) LxWxH(mm)	43.2x10.2x25.4	28x5x15	20x5x17	57x43x27.1	104x74x29.5	44x15x33			
Contact form	1A	1A	1A	1A	1A	1A			
Output	Voltage	DC 60V 24V	AC 120V 240V 48V 380V	DC 24V 240V	AC 240V	120,240, 380,480VAC 60VDC 100VDC	240,480VAC	DC 60V 240V	
	Current	3,7A	3,5A	1.0-4A	2A	4A	1A	10,12,25,40A	10,25,40A
Control input	DC 3-32V AC:18~36V	5V 12V 24V,48V	5V 12V 24V	DC 3V 32V	AC 50V 280V	DC 3V 32V	DC 3V 32V	AC 90V 280V	
Input resistance	2KΩ	320-108KΩ	320-3KΩ	DC 2KΩ	AC 106KΩ				
I/O B/D Voltage	2.5K VAC	2.5K VAC 3.5K VAC	2.5K VAC	3.5K VAC	3.5K VAC	3.5K VAC	3.5K VAC	3.5K VAC	
I.R.	10 ⁸ Ω	10 ⁹ Ω	10 ⁹ Ω	10 ⁹ Ω	10 ⁹ Ω	10 ⁹ Ω	10 ⁸ Ω	10 ⁸ Ω	
Time	T _{on} (Max.)	Zero-on: 8.3ms Random-on: 100μs	200μs 100μs	DC 2ms AC 1ms	Zero-on: 8.3ms Random-on: 100μs	8.3ms	DC 50μs AC 8.3ms	DC 50μs AC 8.3ms	
	T _{off} (Max.)	8.3ms	600μs 10ms	0.1ms 9.3ms	8.3ms 20ms	8.3ms	100μs 8.3ms	100μs 8.3ms	
On-state	1.5V	0.24V 0.6V	1.2V	0.24V 1.5V	1.6-1.8V	1.6-1.8V	1.0V 1.5V	1.0V 1.5V	
Safety									
Options	w/LED			w/LED w/Heatsink	Heatsink				

◆ DIN-RAIL SOCKET ORDERING INFORMATION

◆ PYF / PTF PPF DIN-Rail Socket Ordering Information

P Y F - 11 A E

Safeguard: Nil: Without Finger Protection
E: With Finger Protection

Area Specification: A: Asia Specification
B: Europe Specification

Effective Holes: 08: 8 Holes
11: 11 Holes
14: 14 Holes

Install Type: F: DIN-Rail Install

Suit Relay Model: Y: RE Model
T: RET Model
P: RK, RPT Model

Item: P: Socket

◆ PYF / PTF PPF DIN-Rail Socket List

No	Socket Name	Suit Relay Model	Note	Image
1	PYF-08A	RE-2P		Page 165
2	PYF-08AE	RE-2P		Page 165
3	PYF-08BE	RE-2P		Page 165
4	PYF-08BE/3	RE-2P	/3: Conform to VDE0160	Page 165
5	PYF-14A	RE-4P		Page 166
6	PYF-14AE	RE-4P		Page 166
7	PYF-14BE	RE-4P		Page 166
8	PYF-14BE/3	RE-4P	/3: Conform to VDE0160	Page 166
9	PTF-08A	RET-1P, RET-2P		Page 167
10	PTF-08AE	RET-1P, RET-2P		Page 167
11	PTF-14A	RET-4P		Page 167
12	PTF-14AE	RET-4P		Page 167
13	PPF-11A	RP, RPT		Page 170
14	PPF-11AE	RP, RPT		Page 170

◆ PLF DIN-Rail Socket Ordering Information

P L F - X 03 A

Coil Type: Nil: DC Only
A: AC/DC Compatible

Coil Voltage: 03: 3V, 04: 4.5V, 05: 5V, 06: 6V, 09: 9V, 12: 12V, 15: 15V, 18: 18V, 24: 24V, 48: 48V, 60: 60V

Internal Connections: X: Diode + LED, Positive Pole "+" on A1 Terminal
V: Diode + LED, Negative Pole "-" on A1 Terminal

Install Type: F: DIN-Rail Install with Screw Type Terminals
S: DIN-Rail Install with Screwless Type Terminals

Suit Relay Model: L: LR Model

Item: P: Socket

◆ PLF DIN-Rail Socket & Accessories List

No	Socket Name	Suit Relay Model	Note	Image
1	PLF-X□□	LR	□□ for Coil Operation Voltage	Page 168
2	PLF-V□□	LR	□□ for Coil Operation Voltage	Page 168
3	PLS-X□□	LR	□□ for Coil Operation Voltage	Page 168
4	PLS-V□□	LR	□□ for Coil Operation Voltage	Page 168
5	JUMPER	LR SOCKET (PLF, PLS)	20 PINS	Page 168

◆ PF DIN-Rail Socket Ordering Information

P F - 083 A E

Safeguard: Nil: Without Finger Protection
E: With Finger Protection

Area Specification: A: Asia Specification
B: Europe Specification

Suit Relay Model: 083: RK-2P Model
113: RK-3P Model

Install Type: F: DIN-Rail Install

Item: P: Socket

◆ PF DIN-Rail Socket List

No	Socket Name	Suit Relay Model	Note	Image
1	PF-083A	RK-2P		Page 169
2	PF-083AE	RK-2P		Page 169
3	PF-083BE	RK-2P		Page 169
4	PF-113A	RK-3P		Page 169
5	PF-113AE	RK-3P		Page 170
6	PF-113BE	RK-3P		Page 170
7	PF-113BE/3	RK-3P	/3: Conform to VDE0160	Page 170

◆ PI DIN-Rail Socket Ordering Information

P I -35 B E /3

Insulation high: Nil: Standard high
/3: Conform to VDE0160

Safeguard: Nil: Without Finger Protection
E: With Finger Protection

Area Specification: A: Asia Specification
B: Europe Specification

Suit Dimension: -35: 3.5mm
-50: 5.0mm

Suit Relay Model: I: EMI, EZ Model

Item: P: Socket

◆ PI DIN-Rail Socket List

No	Socket Name	Suit Relay Model	Note	Image
1	PI-35BE	EMI-1P, MI-1P		Page 171
2	PI-35BE/3	EMI-1P, MI-1P	/3: Conform to VDE0160	Page 171
3	PI-50BE	EMI-2P, MI-2P, EZ, EZI		Page 171
4	PI-50BE/3	EMI-2P, MI-2P, EZ, EZI	/3: Conform to VDE0160	Page 171

◆ SIMPLE SOCKET ORDERING INFORMATION:

P I - 35 - 0

Suit State: Nil: for Socket Terminal Socket
0: for PCB Terminal Socket

Effective Holes and Suit Dimension: 05: 5 Holes
08: 8 Holes
11: 11 Holes
14: 14 Holes
35: 3.5mm
50: 5.0mm

Suit Relay Model: Y: RE Model
T: RET Model
I: EMI, EZ Model
L: LR Model

Item: P: Socket

◆ Simple Socket List

No	Socket Name	Suit Relay Model	Note	Image
1	PY-08	RE-2P	Socket Terminal	Page 172
2	PY-08-0	RE-2P	PCB Terminal	Page 172
3	PY-14	RE-4P	Socket Terminal	Page 172
4	PY-14-0	RE-4P	PCB Terminal	Page 172
5	PT-08	RET-1P, RET-2P	Socket Terminal	Page 173
6	PT-08-0	RET-1P, RET-2P	PCB Terminal	Page 173
7	PI-35-0	EMI-1P, MI-1P	PCB Terminal	Page 173
8	PI-50-0	EMI-2P, MI-2P, EZ, EZI	PCB Terminal	Page 173
9	PL-05-0	LR	PCB Terminal	Page 168

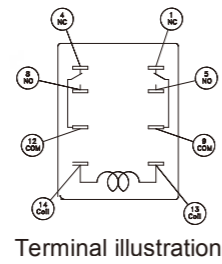
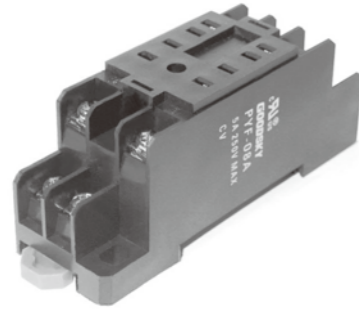
◆ Other Type Socket List

No	Socket Name	Suit Relay Model	Note	Image
1	UC3003	GRL	With Wire Terminals, Side Interlock Type	Page 174
2	CS3770	GRL	With Wire Terminals, Independent Type	Page 174
3	UC3001	GRL	PCB Terminal	Page 174

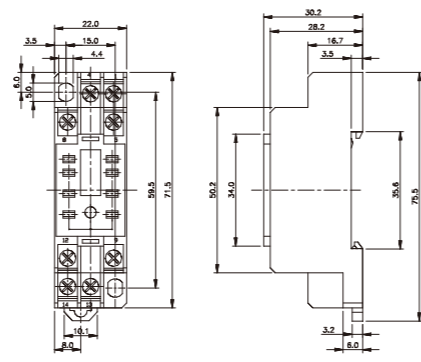
SOCKET ILLUSTRATION

PYF-08A

cULus

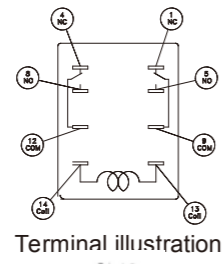
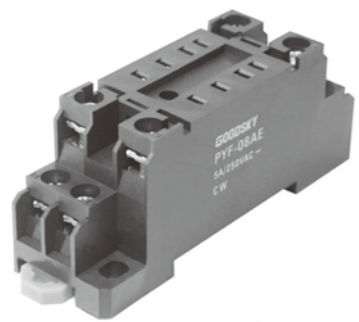


BS-36-M
Equipment

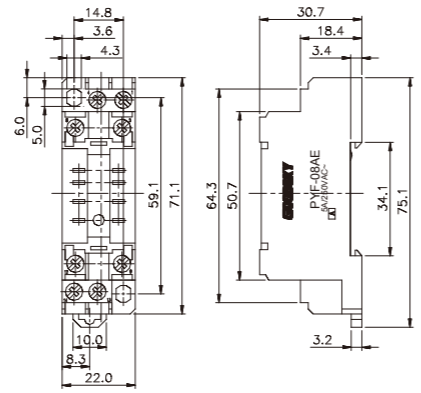


Appearance illustration

PYF-08AE



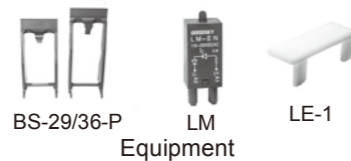
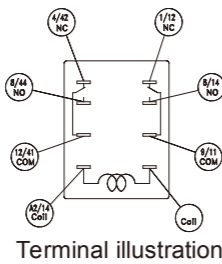
BS-36-M
Equipment



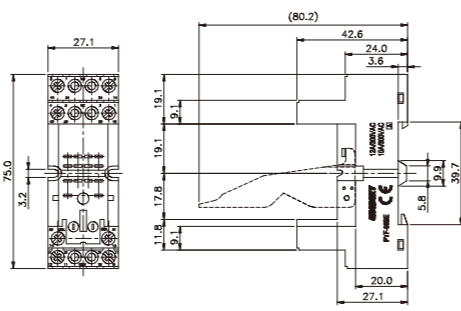
Appearance illustration

PYF-08BE

cULus



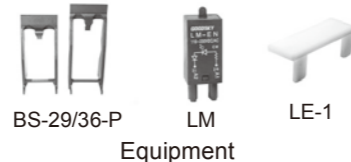
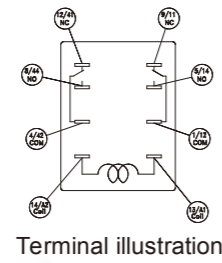
Equipment



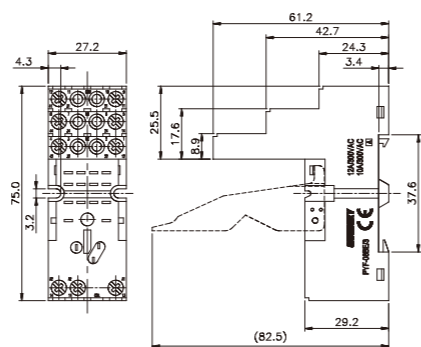
Appearance illustration

PYF-08BE/3

cULus



Equipment

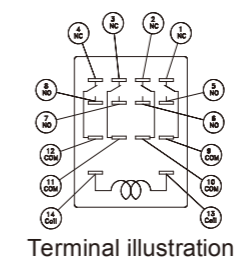
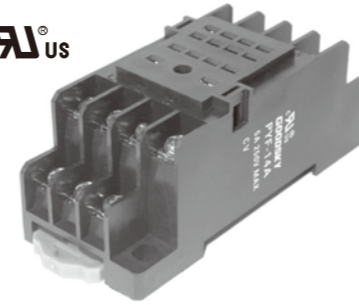


Appearance illustration

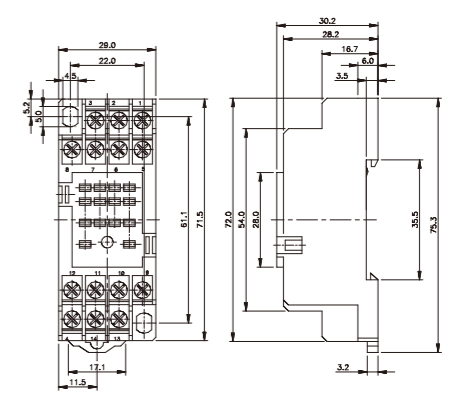
SOCKET ILLUSTRATION

PYF-14A

cULus

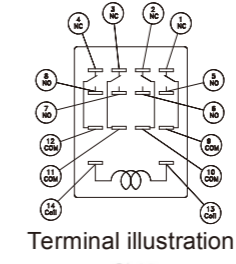


BS-36-M
Equipment

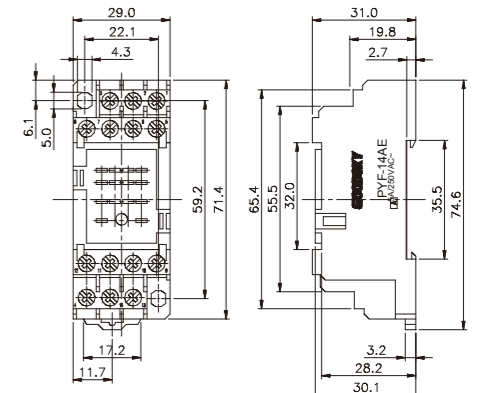


Appearance illustration

PYF-14AE



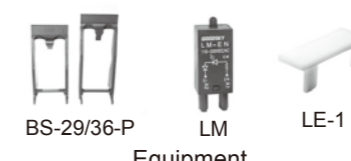
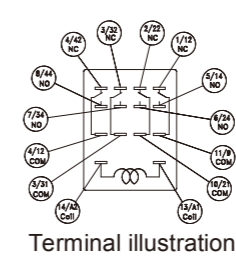
BS-36-M
Equipment



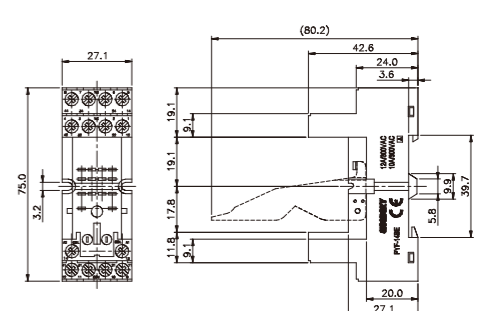
Appearance illustration

PYF-14BE

cULus



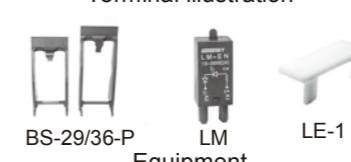
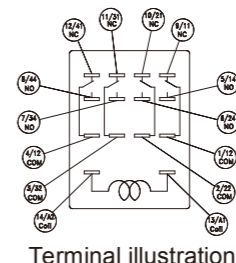
Equipment



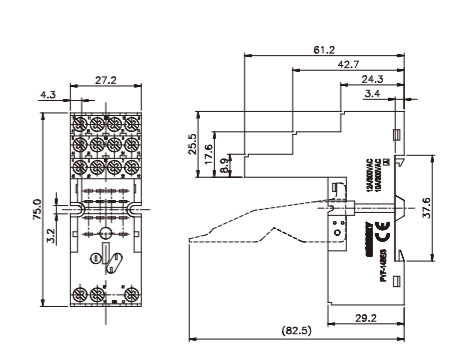
Appearance illustration

PYF-14BE/3

cULus



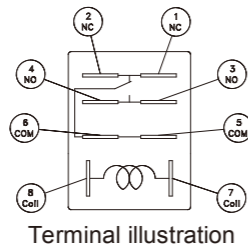
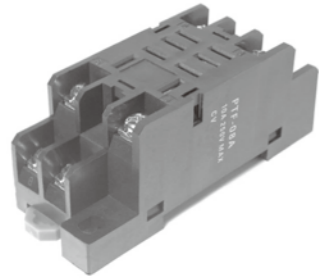
Equipment



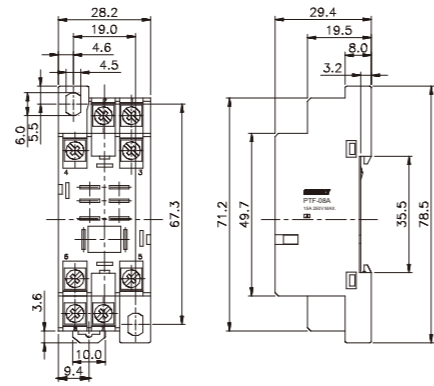
Appearance illustration

SOCKET ILLUSTRATION

PTF-08A

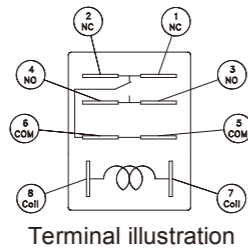
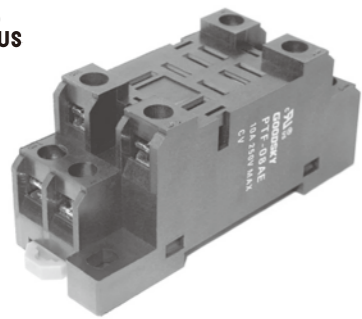


BS-36-M
Equipment

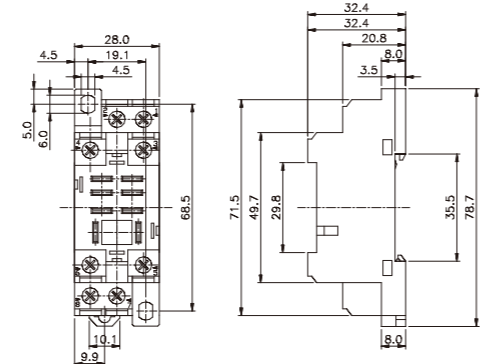


Appearance illustration

PTF-08AE

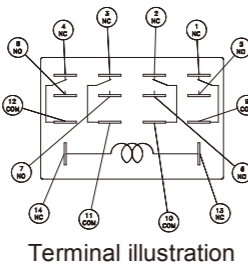
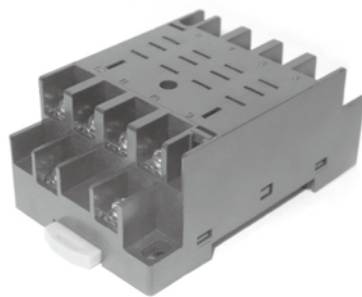


BS-36-M
Equipment

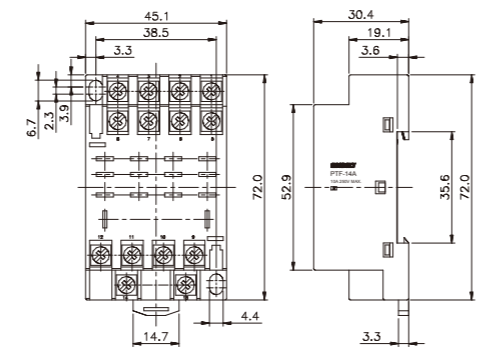


Appearance illustration

PTF-14A

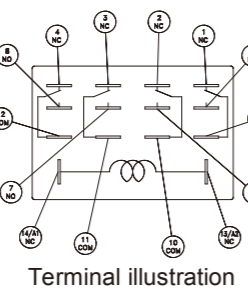
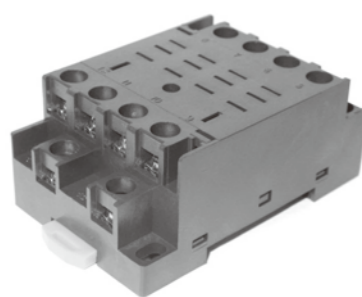


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Equipment

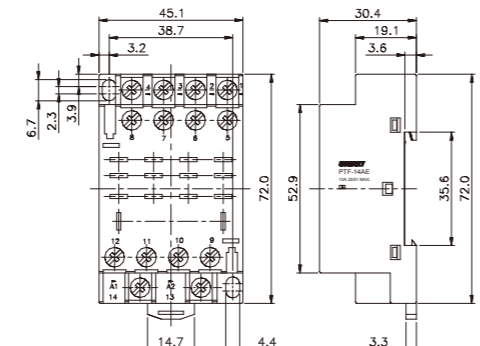


Appearance illustration

PTF-14AE



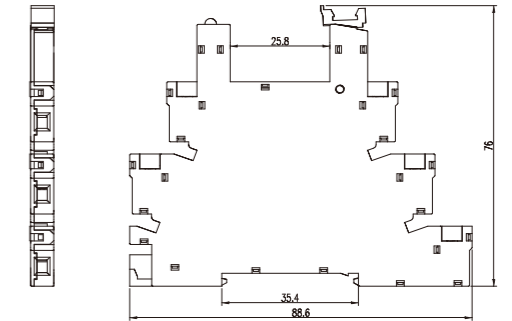
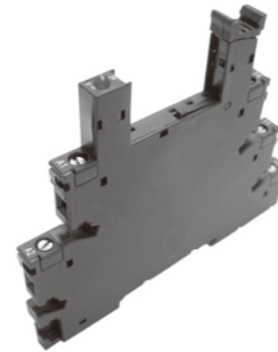
BS-36-M
Equipment



Appearance illustration

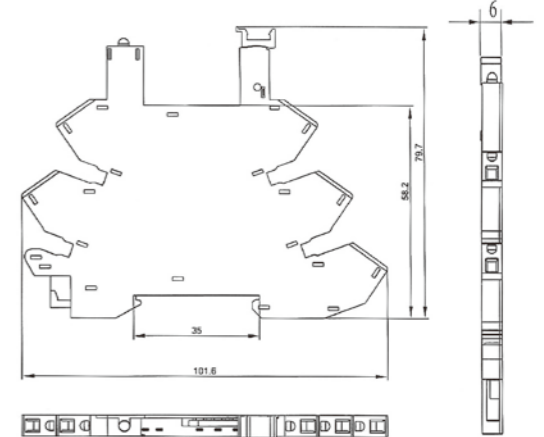
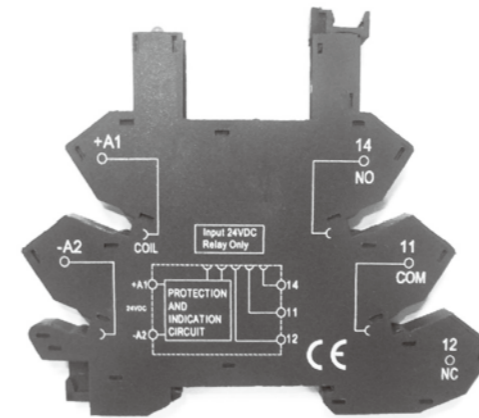
SOCKET ILLUSTRATION

PLF

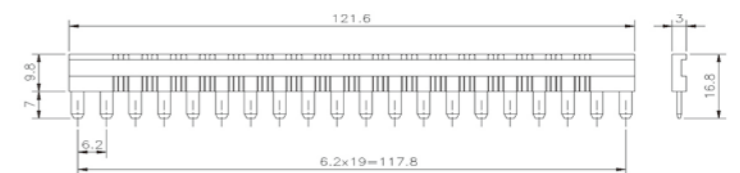
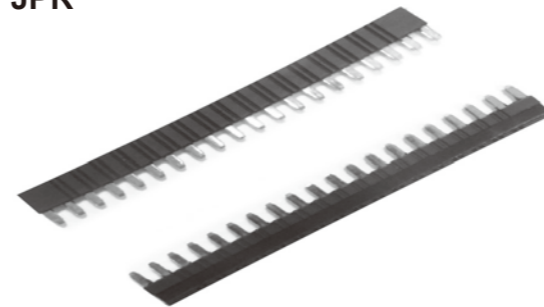


Appearance illustration

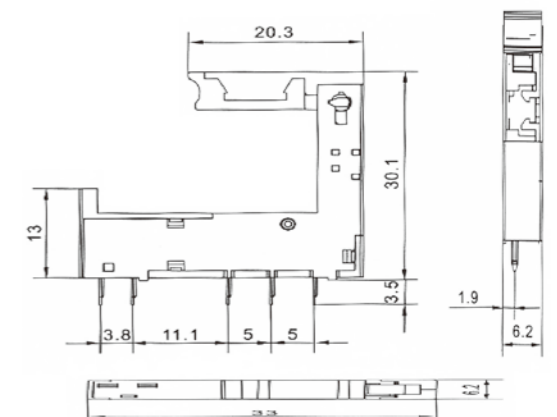
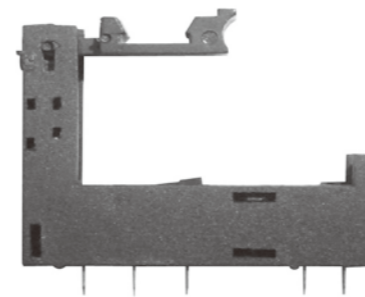
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JPR

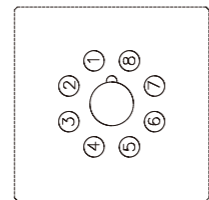
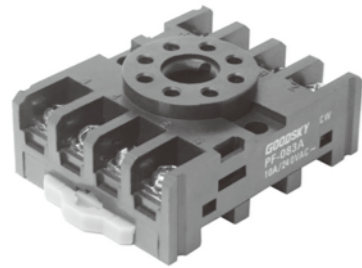


PL-05-0



SOCKET ILLUSTRATION

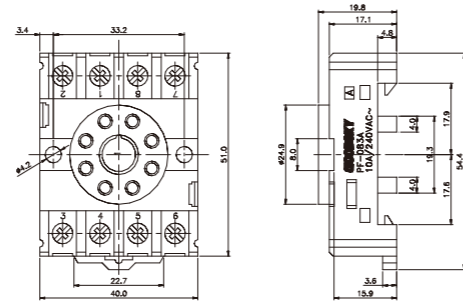
PF-083A



Terminal illustration

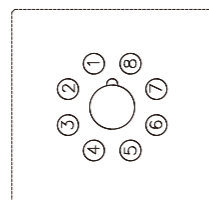


BS-50-M Equipment



Appearance illustration

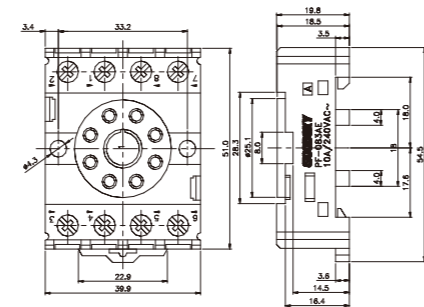
PF-083AE



Terminal illustration

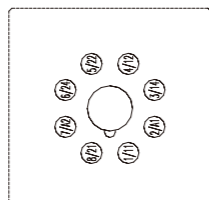
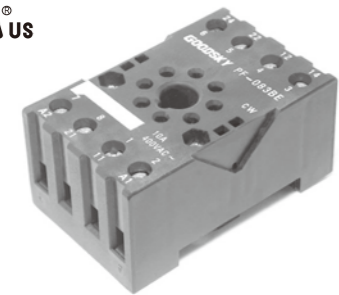


BS-50-M Equipment



Appearance illustration

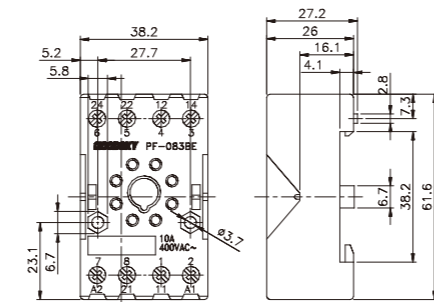
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Terminal illustration

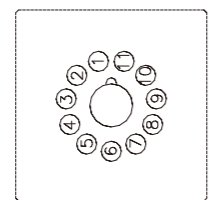
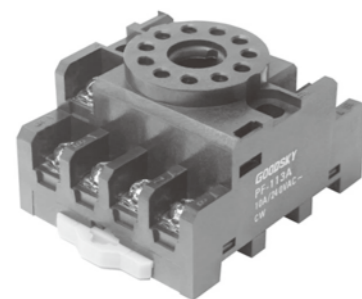


BS-50-MS Equipment



Appearance illustration

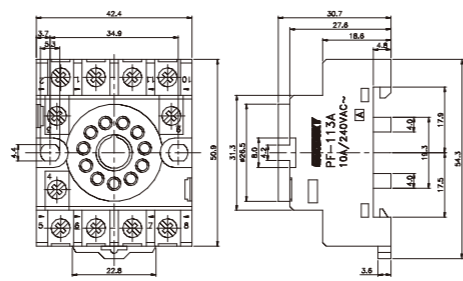
PF-113A



Terminal illustration



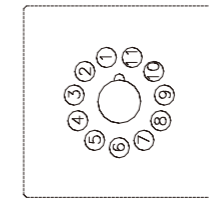
BS-50-M Equipment



Appearance illustration

SOCKET ILLUSTRATION

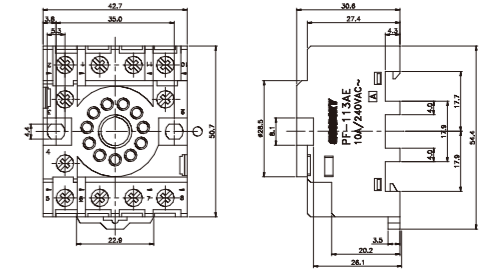
PF-113AE



Terminal illustration

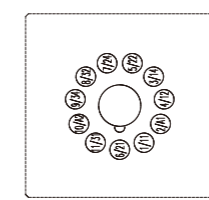


BS-50-M Equipment



Appearance illustration

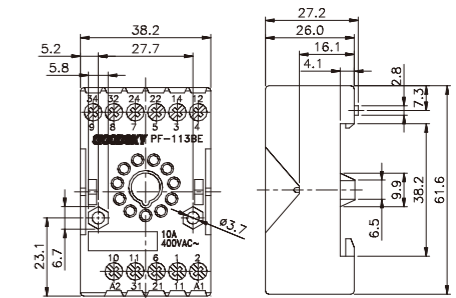
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Terminal illustration

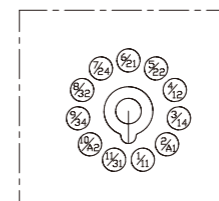


BS-50-MS Equipment



Appearance illustration

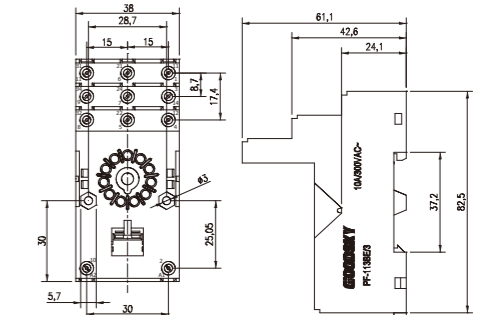
PF-113BE/3



BS-50-MS Equipment

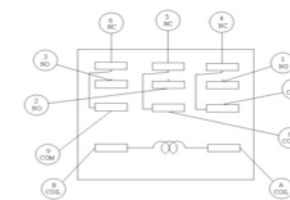
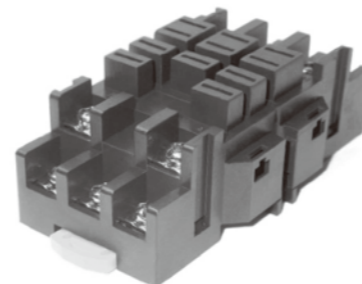


LM



Appearance illustration

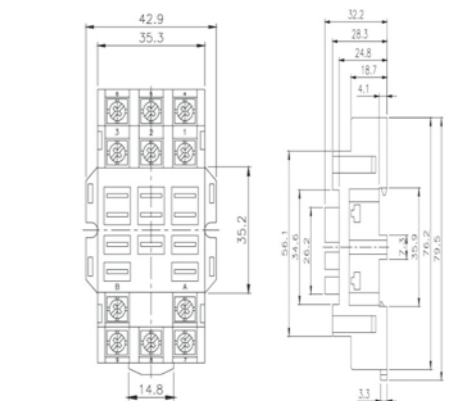
PPF-11A / PPF-11AE



Terminal illustration



BS-69-M Equipment

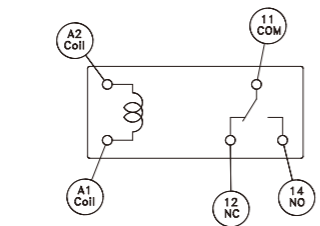
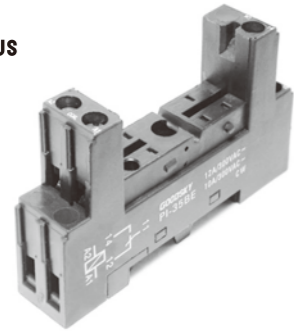


Appearance illustration

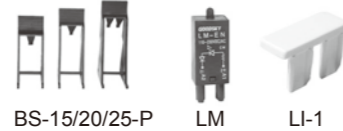
SOCKET ILLUSTRATION

PI-35BE

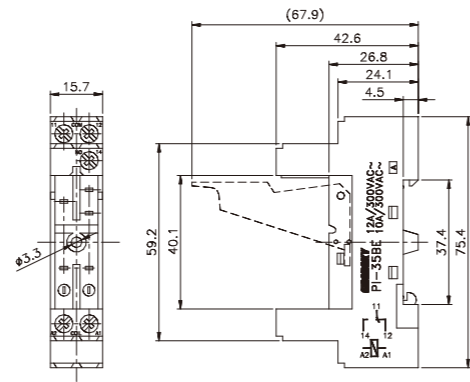
cULus



Terminal illustration



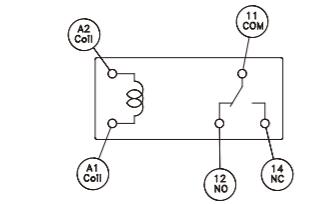
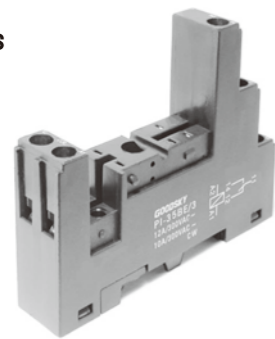
Equipment



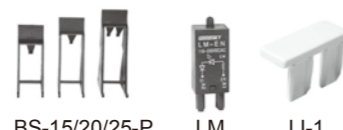
Appearance illustration

PI-35BE/3

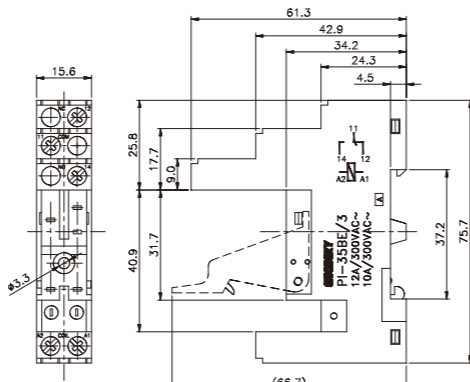
cULus



Terminal illustration



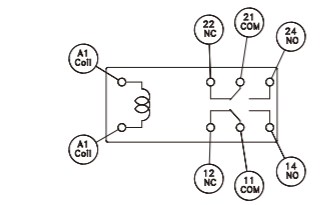
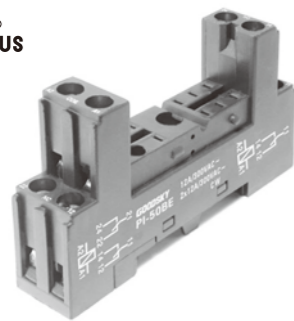
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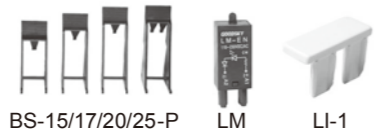
Appearance illustration

PI-50BE

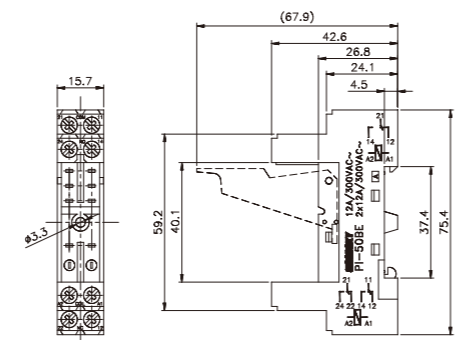
cULus



Terminal illustration



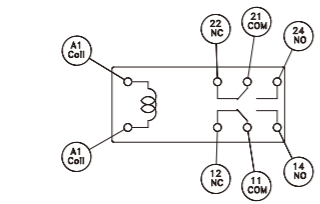
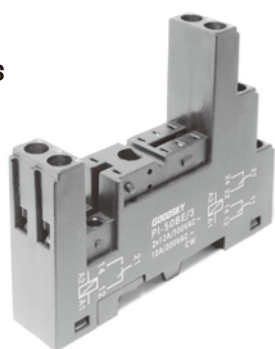
Equipment



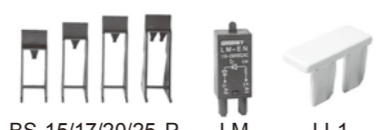
Appearance illustration

PI-50BE/3

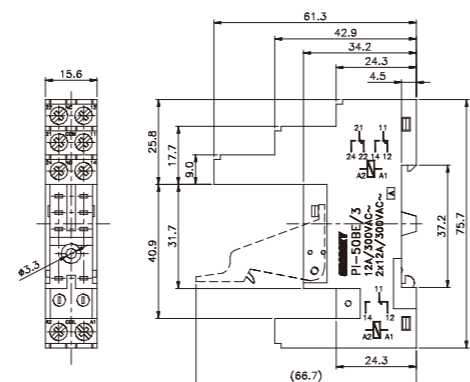
cULus



Terminal illustration



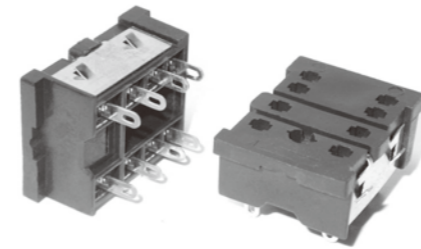
Equipment



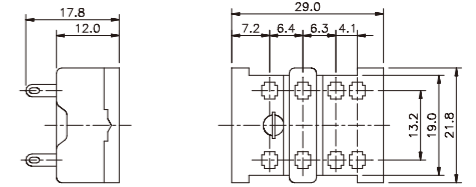
Appearance illustration

SOCKET ILLUSTRATION

PY-08

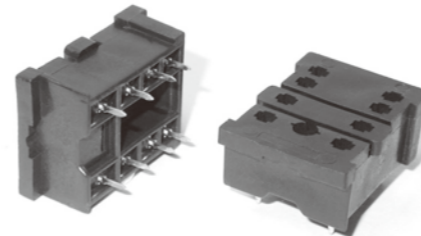


BP-36-MS
Equipment

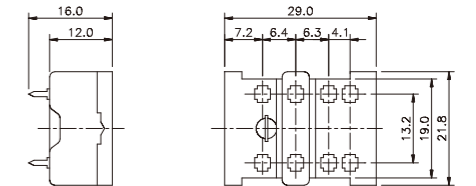


Appearance illustration

PY-08-0

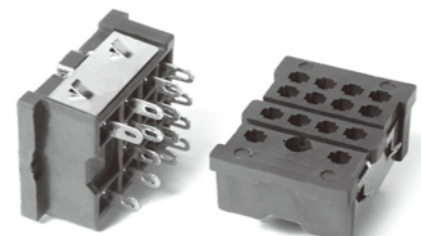


BP-36-MS
Equipment

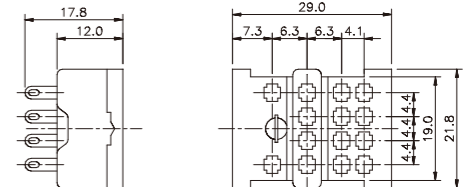


Appearance illustration

PY-14

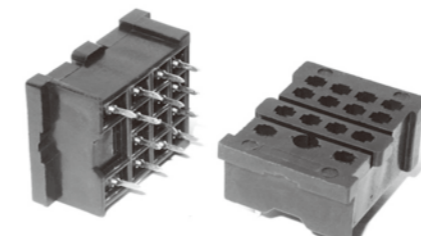


BP-36-MS
Equipment

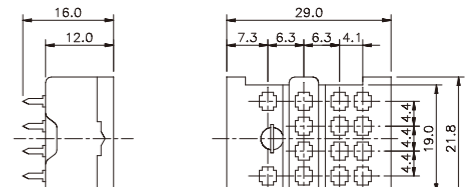


Appearance illustration

PY-14-0



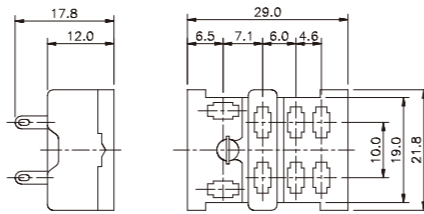
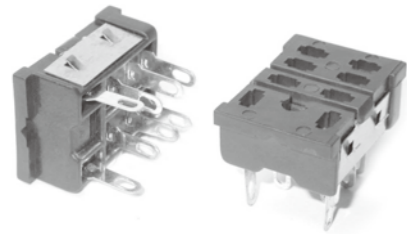
BP-36-MS
Equipment



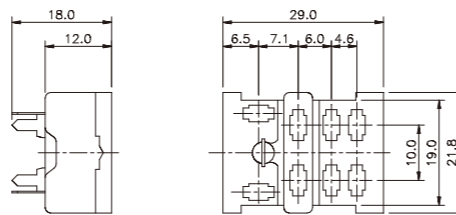
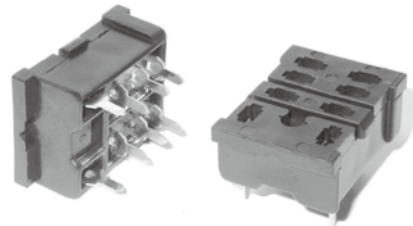
Appearance illustration

SOCKET ILLUSTRATION

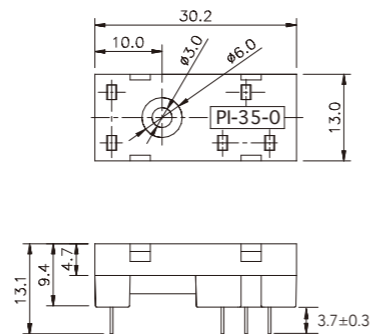
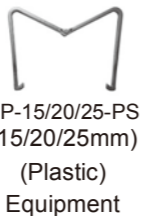
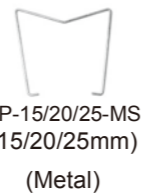
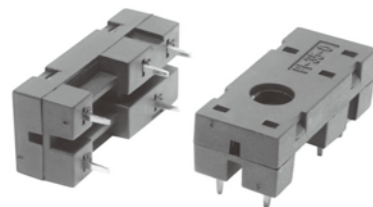
PT-08



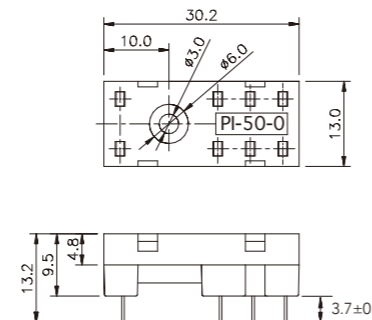
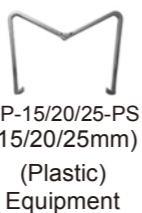
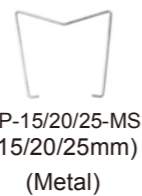
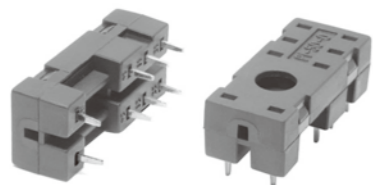
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PI-35-0

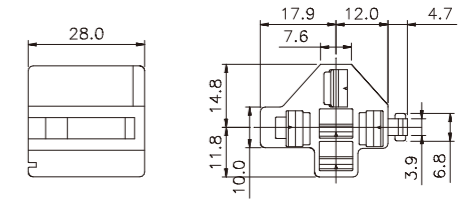


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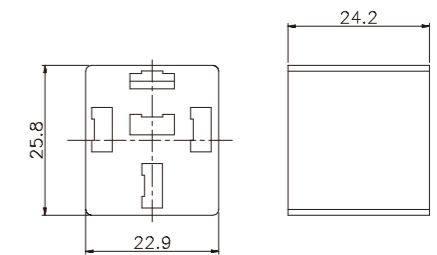


SOCKET ILLUSTRATION

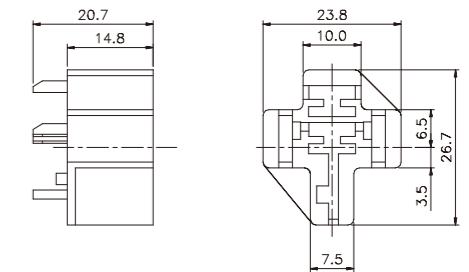
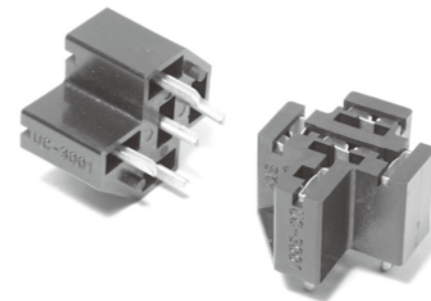
UC3003



CS3770



UC3001

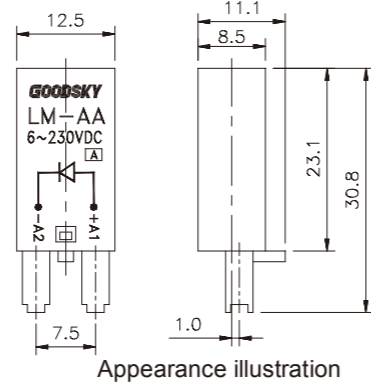


RETAINING CLIP FOR SOCKETS ORDERING INFORMATION

B	P	-15	-P	S	Retainer Type:	Nil: For PYF-xxA, PYF-xxBE, PTF-xxA, PF-xxA, PI-xxBE S: For PF-xxBE, PY, PT, PI-xx-0
					Material:	P: Plastic M: Metal
					Suit Relay High:	-15: 15.0~16.5mm -20: 20.0~20.5mm -25: 25.0~25.5mm -29: 29mm (for PYF) -36: 34.6~35.7mm (for PYF, PTF, PY, PT) -50: 50mm (for PF) -60: 69.0~70.0mm (for PPF)
					Socket Type:	P: PCB Socket S: DIN-Rail Socket B: Retaining Clip
					Item:	



LED Module



Appearance illustration

LED Module Wiring Diagrams

AC	AB	BC	BD	BE	CF	CG
6/230 V DC -A1 +A2	6/230 V DC +A1 -A2	6/24 V DC -A1 +A2	24/60 V DC -A1 +A2	110/230 V DC -A1 +A2	6/24 V DC +A1 -A2	24/60 V DC +A1 -A2
CH	DI	DJ	DK	EL	EM	EN
110/230 V DC +A1 -A2	6/24 V AC +A1 -A2	24/60 V AC +A1 -A2	110/240 V AC +A1 -A2	6/24 V AC/DC +A1 -A2	24/60 V AC/DC +A1 -A2	110/230 V AC/DC +A1 -A2
FO	FP	FQ	FR	GR	GS	GT
6/24 V AC/DC +A1 -A2	24/60 V AC/DC +A1 -A2	110/230 V AC/DC +A1 -A2	12/48 V AC/DC +A1 -A2	24 V AC +A1 -A2	115 V AC +A1 -A2	230 V AC +A1 -A2
HU	JV	JW	JX			
110/230 V AC +A1 -A2	6/24 V AC/DC +A1 -A2	24/60 V AC/DC +A1 -A2	110/230 V AC/DC +A1 -A2			

LED MODULE ORDERING INFORMATION

LM - AC - G

LED Color: Nil: Red
G: Green
Area Code: AC, AB
BC, BD, BE
CF, CG, CH
DI, DJ, DK
EL, EM, EN
FO, FP, FQ, FR
GR, GS, GT
HU
JV, JW, JX
Item: LM: LED Module

IDENTIFICATION BOARD

L E - 1

Type: 1: Standard Type
Suit Socket Model: E: PYF-BE Model
I: PI-BE Model
Item: L: Identification Board

V.01EZ

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