General Purpose Relay

HR705 Series

Part Number Description

HR705 - ❶ ❷ ❸ ❹

❶ Contact Arrangement	1P : 1N/O + 1N/C (Option)	2P : 2N/O + 2N/C	3P : 3N/O + 3N/C (Option)	4P : 4N/O + 4N/C
❷ Mounting & Terminal	No mark : Socket-plug-in, Solder		P : PC Board-pin	
❸ Option	No mark : Standard			L : LED indicator (DC Coil : green, AC Coil : red)
	LD : LED indicator + freewheeling Diode (DC)			LC : LED indicator + Built-in the Surge Adsorbent Circuit (AC)
❹ Coil voltage	12VDC	24VDC	100/110VDC	
	12VAC 50/60 Hz	24VAC 50/60 Hz		
	100/110VAC 50/60 Hz	110/120VAC 50/60 Hz	200/220VAC 50/60 Hz	220/240VAC 50/60 Hz

General Specification

Contact Ratings	Contact Form	2N/O + 2N/C	4N/O + 4N/C		
	Contact Material	Ag alloy (24K gold plate)			
	Maximum Contact Resistance	Max. 50mΩ			
	Rated Current (Resistance Load)	2N/O + 2N/C	4N/O + 4N/C		
		5A 24VDC 5A 240VAC	5A 24VDC 5A 240VAC		
	Maximum Switching Current	5A	5A		
	Maximum Rated Voltage	125VDC / 250VAC			
	Minimum Switching Current *	100mA 5VDC			
Coil Ratings	Coil Voltage	12VDC	24VDC	100/110VDC	
		12VAC 50/60 Hz	24VAC 50/60 Hz		
		100/110VAC 50/60 Hz	110/120VAC 50/60 Hz	200/220VAC 50/60 Hz	220/240VAC 50/60 Hz
	Coil Consumption	DC Coils : Approx. 0.9W			
		AC Coils : Approx. 0.9VA			
	Minimum Pick-up Voltage	80% of Nominal Voltage			
	Maximum Drop-out Voltage	10% of Nominal Voltage DC			
		30% of Nominal Voltage AC			
General Ratings	Operating Time — Maximum Pick-up	20ms			
	Operating Time — Minimum Drop-out	20ms			
	Insulation Resistance	100MΩ at 500VDC			
	Dielectric Strength	Between Contact Points : 1,000Vrms 1 minute			
		Between Contact Points and Coil : 1,500Vrms 1 minute			
	Life Cycle	Mechanical : Min. 1,000,000			
		Electrical : Min. 100,000			
	Vibration Resistant	10 - 55Hz (width of Vibration 1.5mm)			
	Ambient Temperature	-35 - +55°C (with no icing)			
	Ambient Humidity	35% - 80% RH			
	Weight	Approx. 33g			

☞ Please refer to the attention section.
☞ Specifications and materials can be changed without prior notice for the enhancement of the quality.

* The minimum switching current is indicated as a standard value. The actual mininum Switching rate is variable factor according to the make and break frequency, environmental condition and anticipated credibility level. Therefore, it is recommended that tests be done to test actual load value before the production process.

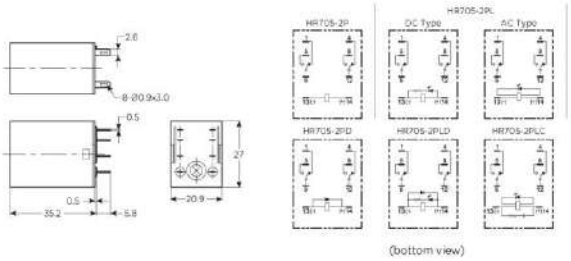
Product Selection

	Contact Form	Socket	Rated Voltage	Part Number Non-Illumination	Illumination	Ilumination Surge Absorption Circuitl	Weight (g)
	2 Pole (2N/O + 2N/C)	KMY2 KY08 (For soldering) KY08-02 (For P.C Board)	220VAC	HR705-2P 220VAC	HR705-2PL 220VAC	HR705-2PLC 220VAC	33g
			110VAC	HR705-2P 110VAC	HR705-2PL 110VAC		33g
			24VAC	HR705-2P 24VAC	HR705-2PL 24VAC		33g
			110VDC	HR705-2P 110VDC	HR705-2PL 110VDC		33g
			24VDC	HR705-2P 24VDC	HR705-2PL 24VDC	HR705-2PLD 24VDC	33g
			12VDC	HR705-2P 12VDC	HR705-2PL 12VDC		33g
	4 Pole (4N/O + 4N/C)	KMY4 KMY4S KY14 (For soldering) KY14-02 (For P.C Board)	220VAC	HR705-4P 220VAC	HR705-4PL 220VAC	HR705-4PLC 220VAC	33g
			110VAC	HR705-4P 110VAC	HR705-4PL 110VAC		33g
			24VAC	HR705-4P 24VAC	HR705-4PL 24VAC		33g
			110VDC	HR705-4P 110VDC	HR705-4PL 110VDC		33g
			24VDC	HR705-4P 24VDC	HR705-4PL 24VDC	HR705-4PLD 24VDC	33g
			12VDC	HR705-4P 12VDC	HR705-4PL 12VDC		33g

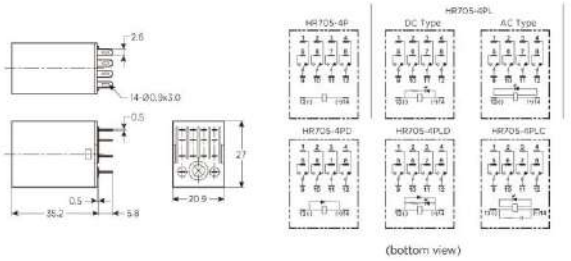
Dimension

(mm)

HR705-2P Series



HR705-4P Series



- HR705 surge absorption circuit models contain a circuit to absorb with coil surge absorption diodes, and models with coil surge absorption varistor circuits were used in

It is suitable to apply where malfunctioning or disturbances are likely to happen in such devices as PLC.

- In case where relay Contact point (PLC relay output card) is tracked, damages on Contact points of other tracking devices are educed by absorbing surge and it is possible to use high priced equipment for a long period of time.

☞ Refer to the socket drawings at page III - 23

General Purpose Relay

HR710 Series

Part Number Description

HR710 - ❶ ❷ ❸ ❹

❶ Contact Arrangement	1P : 1N/O + 1N/C	2P : 2N/O + 2N/C	4P : 4N/O + 4N/C	
❷ Mounting & Terminal	No mark : Blade-Style, Solder		P : PC Board-pin (option)	
❸ Option	No mark : Standard			L : LED indicator (DC Coil : green, AC Coil : red)
	LD : LED indicator + freewheeling Diode (DC)			LC : LED indicator + Built-in the Surge Adsorbent Circuit (AC)
❹ Coil Voltage	12VDC	24VDC	100/110VDC	
	12VAC 50/60 Hz	24VAC 50/60 Hz		
	100/110VAC 50/60 Hz	110/120VAC 50/60 Hz	200/220VAC 50/60 Hz	220/240VAC 50/60 Hz

General Specification

Contact Ratings	Contact Form	1N/O + 1N/C	2N/O + 2N/C	4N/O + 4N/C	
	Contact Material	Ag alloy (24K gold plate)			
	Maximum Contact Resistance	50mΩ			
	Rated Current (Resistance Load)	1N/O + 1N/C	2N/O + 2N/C	4N/O + 4N/C	
		15A 24VDC 15A 220VAC	10A 24VDC 10A 220VAC		
	Maximum Switching Current	15A	10A		
	Maximum Rated Voltage	125VDC / 250VAC			
	Minimum Switching Current *	100mA 5VDC			
Coil Ratings	Coil Voltage	12VDC	24VDC	100/110VDC	
		12VAC 50/60 Hz	24VAC 50/60 Hz		
		100/110VAC 50/60 Hz	110/120VAC 50/60 Hz	200/220VAC 50/60 Hz	220/240VAC 50/60 Hz
	Coil Consumption	1P, 2P DC Coil = Approx. 0.9W / 4P DC Coil = Approx. 1.5W			
		1P, 2P AC Coil = Approx. 1.2VA / 4P AC Coil = Approx. 2.5VA			
	Minimum Pick-up Voltage	80% of Nominal			
	Maximum Drop Out Voltage	10% of Nominal Voltage DC			
		30% of Nominal Voltage AC			
General Ratings	Operating Time — Maximum Pick-up	25ms			
	Operating Time — Minimum Drop-out	25ms			
	Insulation Resistance	100MΩ at 500VDC			
	Dielectric Strength	Between Contact Points : 1,000Vrms 1 Minute.			
		Between Contact Points and coil : 1,500Vrms 1 Minute.			
	Life Cycle	Mechanical : Min. 1,000,000			
		Electrical : Min. 100,000			
	Vibration Resistant	10 ~ 55Hz (width of vibration 1.5mm)			
	Ambient Temperature	-25 ~ + 55°C (with no icing)			
	Ambient Humidity	35% ~ 80% RH			
	Weight	2P : Approx. 33g , 4P : Approx. 65g			

☞ Please refer to the attention section.
☞ Specifications and materials can be changed without prior notice for the enhancement of the quality.

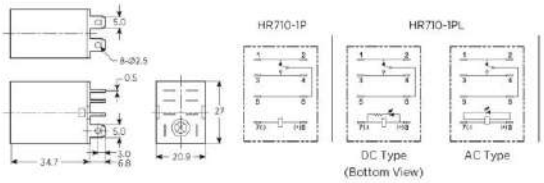
* The minimum switching current is indicated as a standard value. The actual mininum Switching rate is variable factor according to the make and break frequency, environmental condition and anticipated credibility level. Therefore, it is recommended that tests be done to test actual load value before the production process.

Product Selection

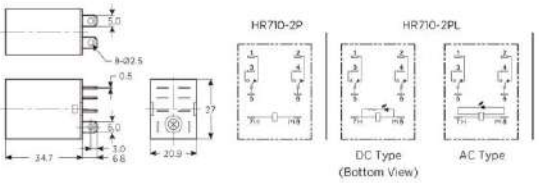
	Contact Form	Socket	Rated Voltage	Part Number Non-Illumination	Illumination	Illumination Surge Absorption Circuit	Weight (g)
	1 Pole (1N/O + 1N/C)		220VAC	HR710-1P 220VAC	HR710-1PL 220VAC	HR710-1PLC 220VAC	33g
			110VAC	HR710-1P 110VAC	HR710-1PL 110VAC		33g
			24VAC	HR710-1P 24VAC	HR710-1PL 24VAC		33g
			110VDC	HR710-1P 110VDC	HR710-1PL 110VDC		33g
			24VDC	HR710-1P 24VDC	HR710-1PL 24VDC	HR710-1PLD 24VDC	33g
			12VDC	HR710-1P 12VDC	HR710-1PL 12VDC		33g
	2 Pole (2N/O + 2N/C)	KLY2 KT08 (For soldering) KY08-0 (For P.C Board)	220VAC	HR710-2P 220VAC	HR710-2PL 220VAC	HR710-2PLC 220VAC	33g
			110VAC	HR710-2P 110VAC	HR710-2PL 110VAC		33g
			24VAC	HR710-2P 24VAC	HR710-2PL 24VAC		33g
			110VDC	HR710-2P 110VDC	HR710-2PL 110VDC		33g
			24VDC	HR710-2P 24VDC	HR710-2PL 24VDC	HR710-2PLD 24VDC	33g
			12VDC	HR710-2P 12VDC	HR710-2PL 12VDC		33g
	4 Pole (4N/O + 4N/C)	KLY4 KTF14A	220VAC		HR710-4PL 220VAC	HR710-4PLC 220VAC	65g
			110VAC		HR710-4PL 110VAC		65g
			24VAC		HR710-4PL 24VAC		65g
			110VDC		HR710-4PL 110VDC		65g
			24VDC		HR710-4PL 24VDC	HR710-4PLD 24VDC	65g
			12VDC		HR710-4PL 12VDC		65g

Dimension (mm)

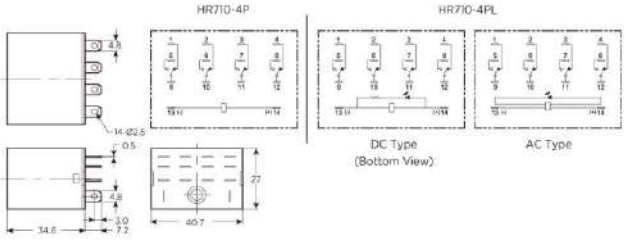
HR710-1P Series



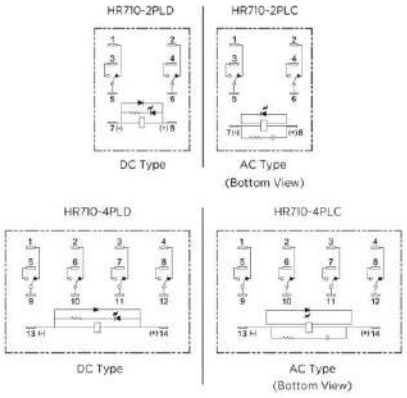
HR710-2P Series



HR710-4P Series



HR710 (Surge Absorption type)



- HR710 surge absorption contains a circuit to absorb with coil surge absorption diodes, and models with coil surge absorption varistor circuits were used in. It is suitable to apply where malfunctioning or disturbances are likely to happen in such devices as PLC.
- In case where relay contact (PLC relay output card) is tracked, damages on contacts of other tracking devices are reduced by absorbing surge and it is possible to use high priced equipment for a long period of time.

General Purpose Relay

HR707N Series

Part Number Description

HR707N - ❶ ❷ ❸ ❹

❶ Contact Arrangement	2P : 2N/O + 2N/C	3P : 3N/O + 3N/C			
❷ Option	No mark : Standard (Mechanical indicator equipped)		L : LED Indicator (DC Coil : Green, AC Coil : Red)		
	LD : LED Indicator + Freewheeling Diode (DC)		LC : LED Indicator + Built-in the Surge Adsorbent Circuit (AC)		
❸ Coil Voltage	12VDC	24VDC	100/110VDC		
	12VAC 50/60 Hz	24VAC 50/60 Hz	100/110/120VAC 50/60 Hz	200/220VAC 50/60 Hz	220/240VAC 50/60 Hz

General Specification

Contact Ratings	Contact Form		2N/O + 2N/C	3N/O + 3N/C	
	Contact Material		Ag alloy (24K gold plate)		
	Maximum Contact Resistance		50mΩ		
	Rated Current (Resistance Load)		2N/O + 2N/C	3N/O + 3N/C	
			10A 28VDC		
	Maximum Switching Current		10A 250VAC		
			10A		
	Maximum Rated Voltage		250VDC / 250VAC		
	Minimum Switching Current *		100mA 5VDC		
Coil Ratings	Coil Voltage		12VDC	24VDC	100/110VDC
			12VAC 50/60 Hz	24VAC 50/60 Hz	
			100/110/120VAC 50/60 Hz	200/220VAC 50/60 Hz	220/240VAC 50/60 Hz
	Coil Consumption		DC : 1.6W Approx.		
			AC : 2.4VA Approx.		
	Minimum Pick-up Voltage		80% of Nominal		
	Maximum Drop Out Voltage		10% of Nominal Voltage DC		
			30% of Nominal Voltage AC		
General Ratings	Operating Time	Maximum Pick-up	30ms		
		Minimum Drop-out	20ms		
	Insulation Resistance		100MΩ at 500VDC		
	Dielectric Strength		Between Contact Points : 1,000Vrms for 1 minute.		
			Between Contact Points and Coil : 1,500Vrms for 1 minute.		
	Life Cycle		Mechanical : Min. 10,000,000		
			Electrical : Min. 100,000		
	Vibration Resistant		10 ~ 55Hz width of vibration 1.5mm		
	Ambient Temperature		-10 ~ +40°C (with no icing)		
	Ambient Humidity		35% ~ 80%RH		
	Weight		Approx. 75g		

☞ Please refer to the attention section.
☞ Specifications and materials can be changed without prior notice for the enhancement of the quality.

* The minimum switching current is indicated as a standard value. The actual mininum Switching rate is variable factor according to the make and break frequency, environmental condition and anticipated credibility level. Therefore, it is recommended that tests be done to test actual load value before the production process.

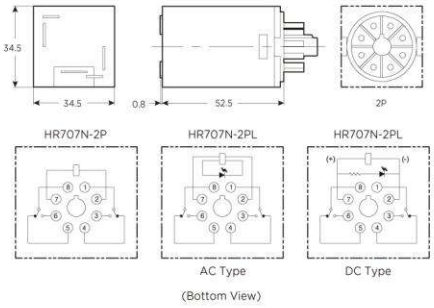
Product Selection

	Contact Form	Socket	Rated Voltage	Part Number Non-Illumination	Illumination	Illumination Surge Absorption Circuit	Weight (g)
	2 Pole (2N/O + 2N/C)	KF083A KPZ2	220VAC	HR707N-2P 220VAC	HR707N-2PL 220VAC	HR707N-2PLC 220VAC	75g
			110VAC	HR707N-2P 110VAC	HR707N-2PL 110VAC		75g
			110VDC	HR707N-2P 110VDC	HR707N-2PL 110VDC		75g
			24VDC	HR707N-2P 24VDC	HR707N-2PL 24VDC	HR707N-2PLD 24VDC	75g
	3 Pole (3N/O + 3N/C)	KF113A KPZ3	220VAC	HR707N-3P 220VAC	HR707N-3PL 220VAC	HR707N-3PLC 220VAC	75g
			110VAC	HR707N-3P 110VAC	HR707N-3PL 110VAC		75g
			110VDC	HR707N-3P 110VDC	HR707N-3PL 110VDC		75g
			24VDC	HR707N-3P 24VDC	HR707N-3PL 24VDC	HR707N-3PLD 24VDC	75g

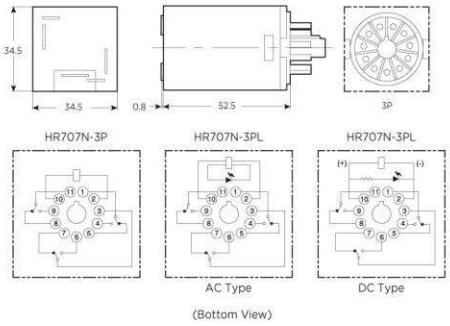
Dimension

(mm)

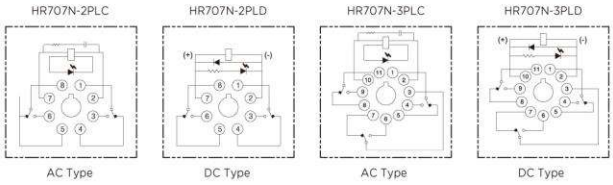
HR707N-2P Series



HR707N-3P Series



HR707N (surge absorption type)

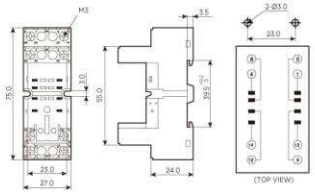
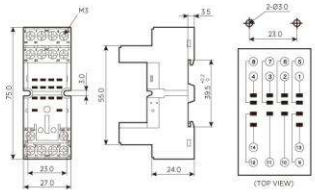


- HR707N surge absorption models contains a circuit to absorb the noises that are produced from relay while relay tracking. It is suitable to apply where malfunctioning or disturbances are likely to happen in such devices as PLC.
- In case where relay Contact point (PLC relay output card) is tracked, damages on Contact points of other tracking devices are reduced by absorbing surge and it is possible to use high priced equipment for a long period of time.

Socket

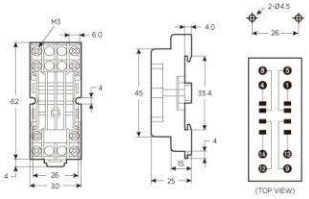
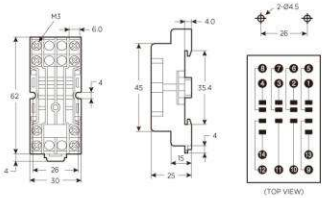
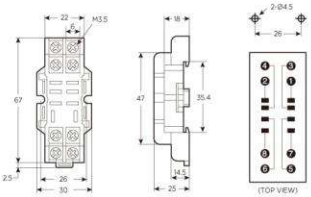
Product Selection & Dimension

(mm)

	Part Number (Color)	Certification	Relay	Dimension
	KPY2 (White)	CE cULus	K505-2P	
	KPY4 (White)	CE cULus	K505-4P	

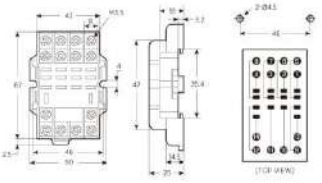
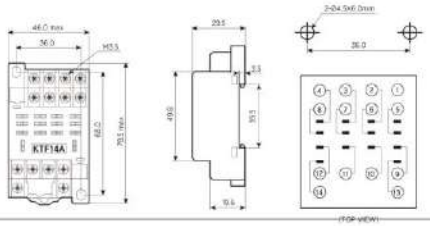
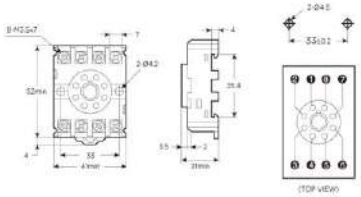
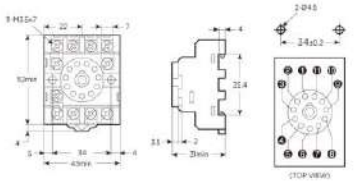
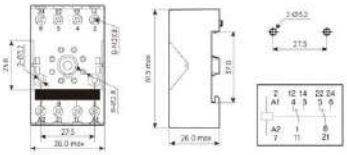
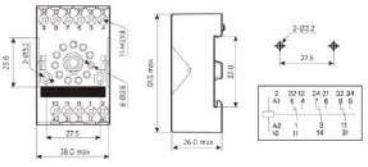
Module

KPY-M		KPY-D	
	KPY-M1 24VDC/AC KPY-M2 110VDC/AC KPY-M3 220VDC/AC KPY socket		6 ~ 250VDC KPY socket
Varistor		Diode	

	KMY2	CE cULus	K505-2P HR705-2P	
	KMY4 (R, G, Y, B, Amber, Black(Basic))	CE cULus	K505-4P HR705-4P	
	KLY2	CE cULus	HR710-2P	

Product Selection & Dimension

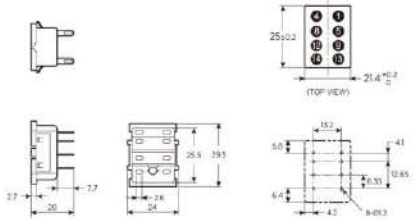
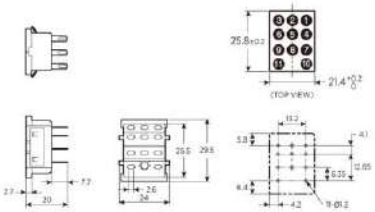
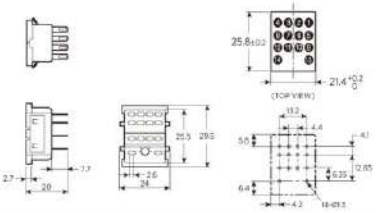
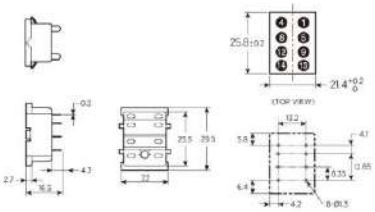
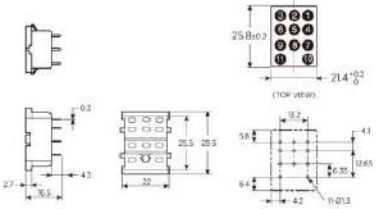
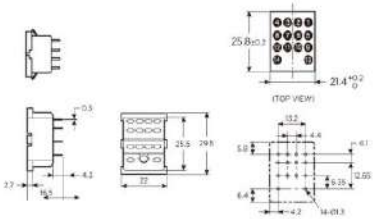
(mm)

	Part Number	Certification	Relay	Dimension
	KLY4	CE cULus	HR710-4P	
	KTF14A	CE cULus	HR710-4P	
	KF083A	CE cULus	HR707N-2P	
	KF113A	CE cULus	HR707N-3P	
	KPZ2	CE cULus	HR707N-2P TTL TTS	
	KPZ3	CE cULus	HR707N-3P	

Socket

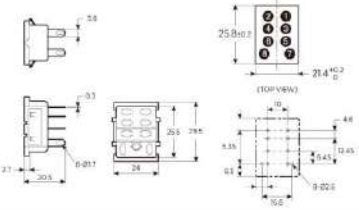
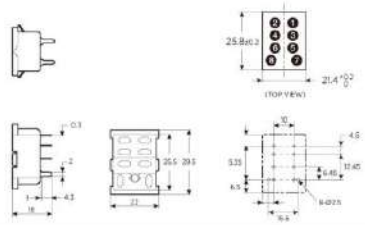
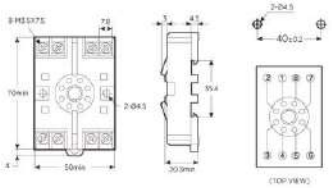
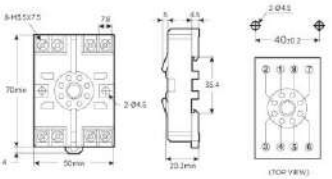
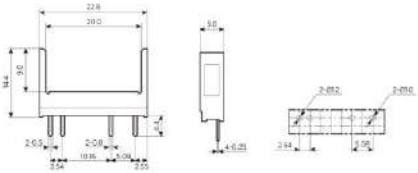
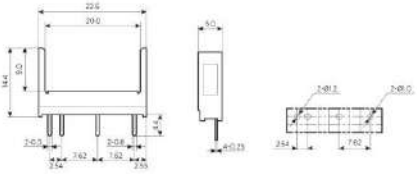
Product Selection & Dimension

(mm)

	Part Number	Certification	Relay	Dimension
	KY08	CE	K505-2PL HR705-2P Soldering	
	KY11	CE cULus	HR705-3P Soldering	
	KY14	CE	K505-4P HR705-4P Soldering	
	KY08-02	CE cULus	K505-2P HR705-2P PCB Type	
	KY11-02	CE cULus	HR705-3P PCB Type	
	KY14-02	CE cULus	K505-4P HR705-4P PCB Type	

Product Selection & Dimension

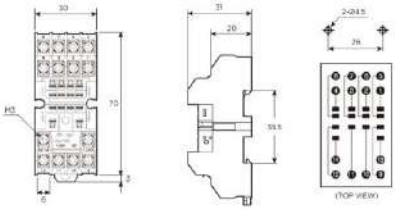
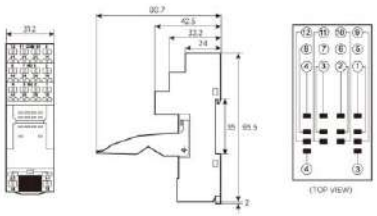
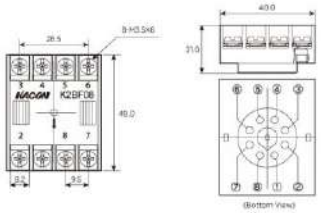
(mm)

	Part Number	Certification	Relay	Dimension
	KT08	CE	HR710-2P Soldering	
	KT08-0	CE cULus	HR710-2P PCB Type	
	K2CF08	CE cULus	TTL	
	K2CF08K	CE	Waterlevel, FLR	
	TAS (White)		TA-1a	
	TRS (White)		TR-1a	

Socket

Product Selection & Dimension

(mm)

	Part Number	Certification	Relay	Dimension
	KMY4S G (Green)	CE RoHS	K505-4P HR705-4P	
	KCY4	CE cULus	K505-4P HR705-4P	
	K2BF08	CE cULus	TTL	
	K2BF11	CE	TTL