
Product Guide

Interface relay & Miniature relay

41F ZJ157F ZJ18F



- Slim designed
- High contact rating
- Cost saving

VELMA offers a complete range of interface relays and general purpose relay for increased flexibility and choice.

This portfolio includes pluggable relays for easy interchangeability and Solid state relay for an extended electrical life.

Furthermore, interface relays with gold plated contacts suitable for sensitive applications are available.

This wide selection of relays adheres to the highest global standards and satisfies the requirements for a diverse number of applications and needs.

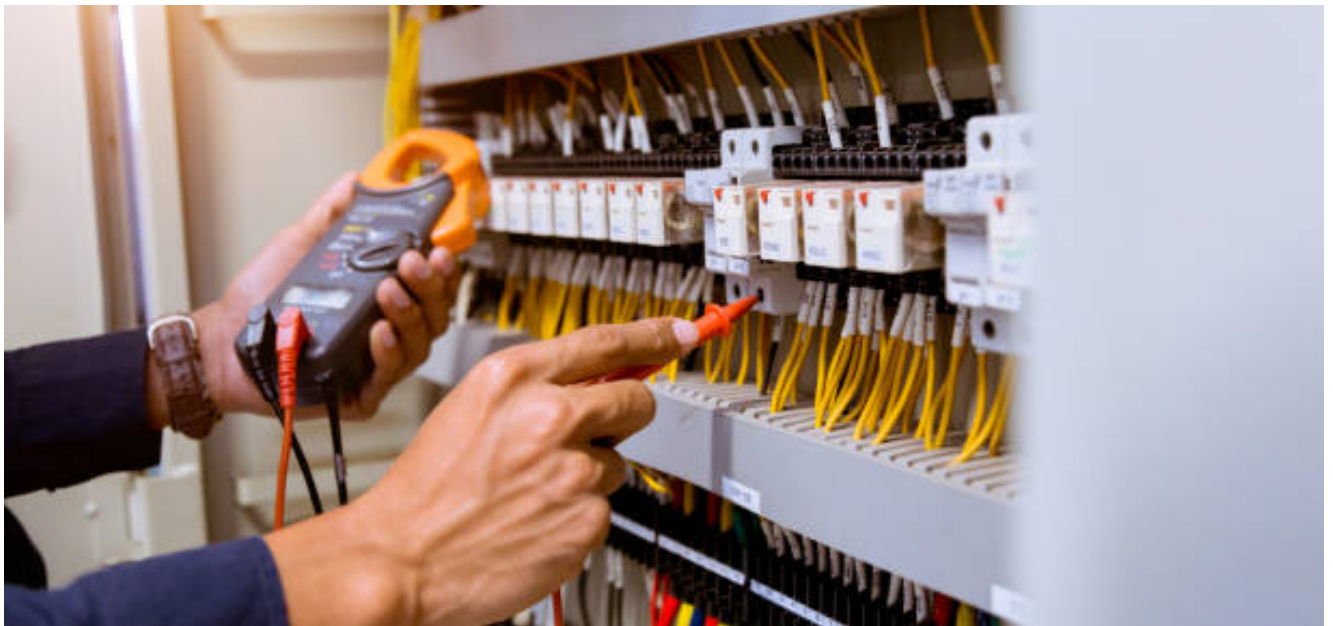
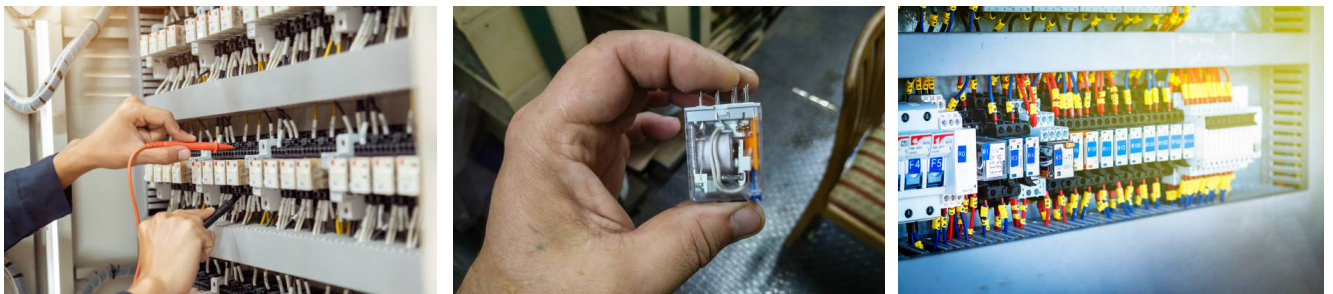
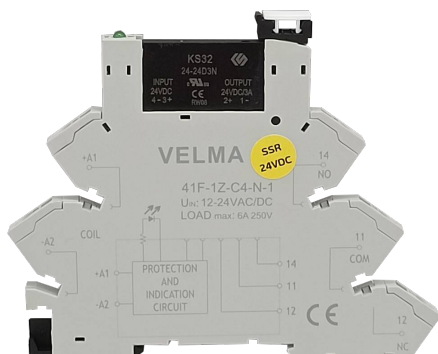


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SSR

ORDERING NO.

SSR Coil: KS32 24-24D3N

SSR SOCKET: 41F-1Z-C4-N-1

FEATURES

- Mini type SSR, PCB or Socket mount
- Photoelectric isolation, dielectric strength 2500VAC
- Pin-compatible with standard package EMR
- TTL and COMS compatibles
- I/O modules for interface between PLC and Input devices or loads

DESCRIPTION

KS32 is a set of SPST-NO DC output PCB or Socket mount Mini type SSR. The SSR has five DC input options 5VDC, 12VDC, 24VDC, 48VDC and 60VDC for selection and provides 2500Vrms photoelectric isolation between input and output pins of the SSR are fully compatible with standard packaged electromechanical relays, thus it will be very convenient for users to install and use.

SELECTION GUIDE

KS32/	24-	24D	3	N	-H	(XXX)
Type	Control Voltage	Load voltage	Load current	RC snubber N: Not include	Mount mode	Customer Special code
	5: 5VDC 12: 12VDC 24: 24VDC 48: 48VDC 60: 60VDC	24D: 24VDC 48D: 48VDC	3: 3A (Vertical) 4: 4A (Vertical) 5: 5A (Horizontal)		H: Horizontal Nil: Vertical	

Note: Only below specifications are available: KS32/XX-24D3N, KS32/XX-24D4N, KS32/XX-48D3N, KS32/ZZ-24D5N-H



SSR Specification sheet

INPUT SPECIFICATION (Ta = 25°C)

Control Voltage	5	4 - 6VDC
	12	9.6 - 14.4VDC
	24	19.2 - 28.8VDC
	48	38.4 - 57.6VDC
	60	48 - 72VDC
Turn-on Voltage	5	4VDC
	12	9.6VDC
	24	19.2VDC
	48	38.4VDC
	60	48VDC
Turn-off Voltage	5	1VDC
	12	3VDC
	24	9VDC
	48	10VDC
	60	20VDC
Max. input current 25mA.		
Max.reverse protection Voltage	5	-0VDC
	12	-14.4VDC
	24	-28.8VDC
	48	-57.6VDC
	60	-72VDC

OUTPUT SPECIFICATION (Ta = 25°C)

Load voltage range	24Dxx	3 - 28.8VDC
	48Dxx	3 - 57.6VDC
Max. transient range	24Dxx	33VDC
	48Dxx	58VDC
Load current range	24D3	0.02 - 3A
	24D4	0.02 - 4A
	24D5	0.02 - 5A
	48D3	0.02 - 3A

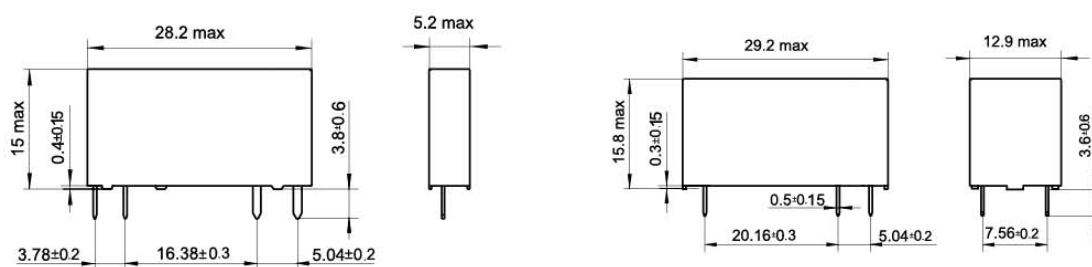
OUTPUT SPECIFICATION (Ta = 25°C)

Max. on-state voltage drop	24D3	0.2VDC
	24D4	0.35VDC
	24D5	0.2VDC
	48D3	0.35VDC
Max. turn-on time	50 micro sec.	
Max. turn-off time	300 micro sec.	

GENERAL SPECIFICATION (Ta = 25°C)

Dielectric strength (input/output)	2500VAC, 1 min.
Insulation resistance	1000 M Ohms (500VDC)
Max. capacitance (input/output)	50 pF
Vibration resistance	10 - 55Hz, 1.5 mm, DA
Operating Temperature	-30 - 80°C
Storage Temperature	-30 - 100°C
Ambient humidity	45% - 85% RH
Unit weight	11g,

DIMENSIONS

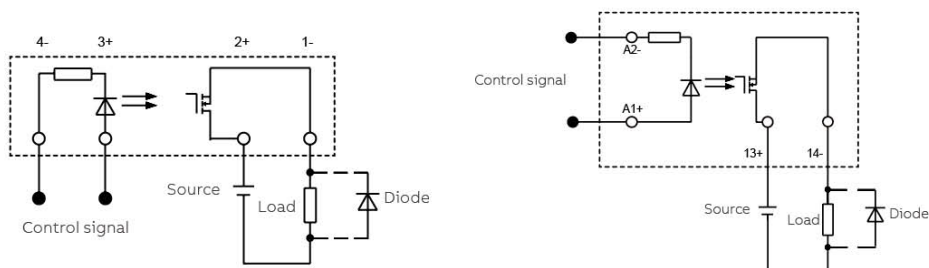


Vertical Type

Horizontal Type

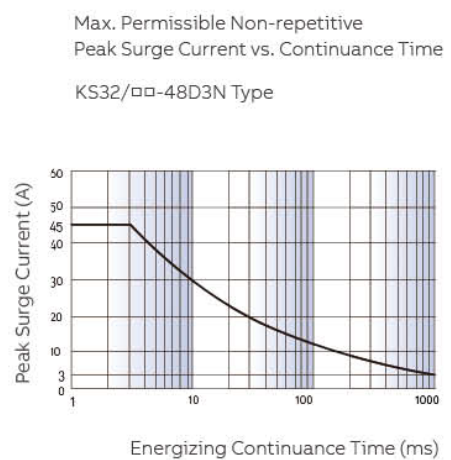
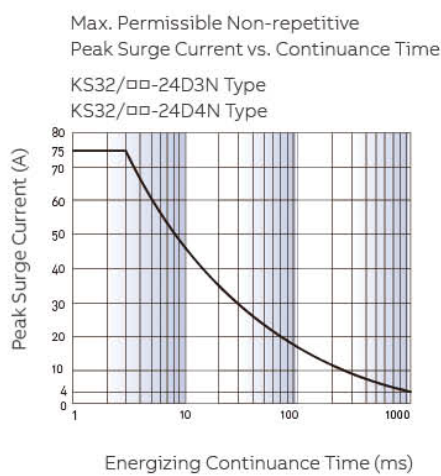
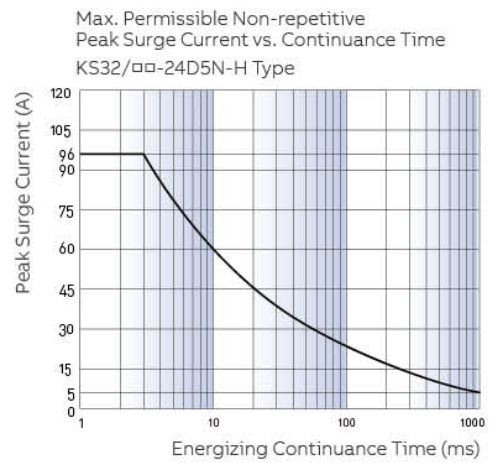
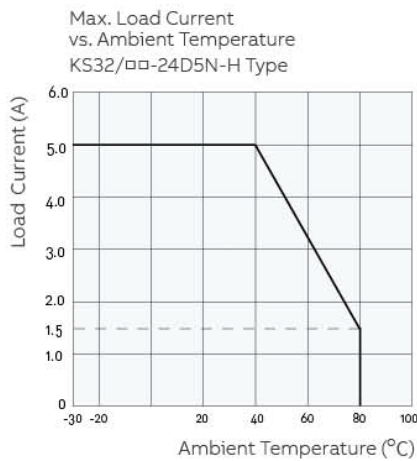
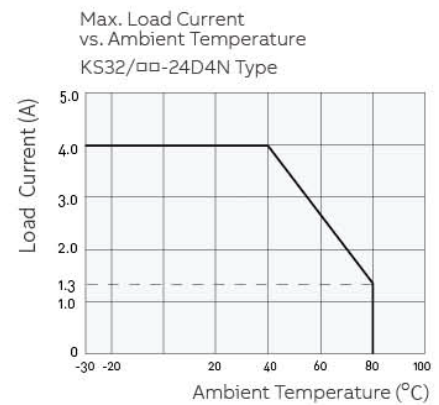
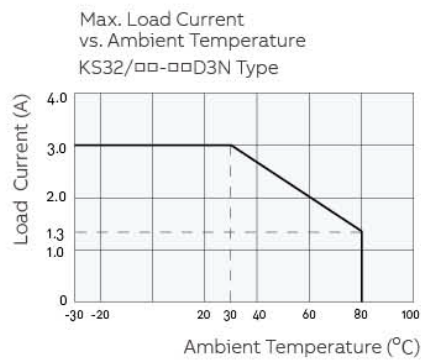
WIRING DIAGRAM

Wiring Diagram

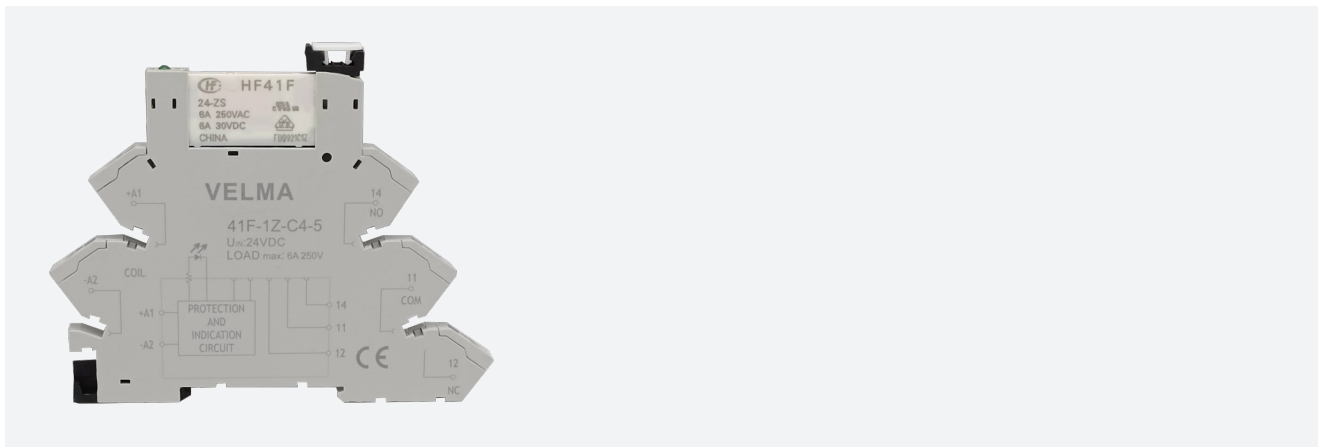


Vertical Type

Horizontal Type



INTERFACE RELAY Push-in terminal



FEATURES

- Relay module up to 6 A 250V, different contact materials
- Solid state modules for most loads DC and AC up to 2 A
- Coil UC = AC/DC, no protection circuit required
- LED status display
- Screw terminals or cage clamp terminals
- Jumper link
- Super small mounting: 6.2 mm.

DESCRIPTION

For PLC's and process control high power contact AgNi with cage clamp terminals 41F-1Z-C4-x Recommended Max. load 250V 6 A resistive link option.

SPECIFICATION

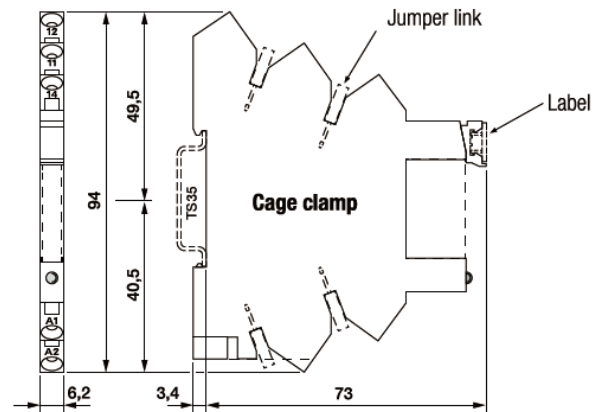
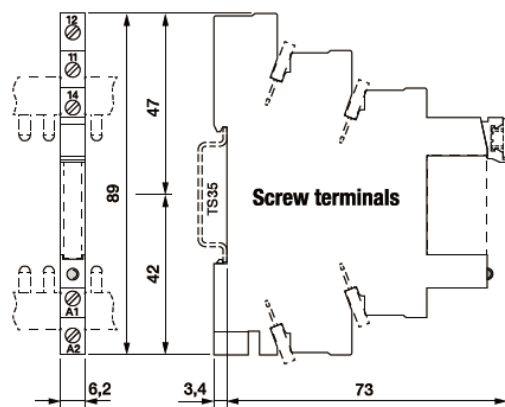
Technical data

Contact	1-CO (1NO/1NC)
Switching current	6 A 250V AC
Recommended minimal load	100mA / 12V
Switching power DC-1-30V	180W
Switching power AC-1-230V	1500VA
Switching power DC-15-230V	300VA
Peak inrush current	15A / 2.5 ms
Switching cycles: mech/elec	50,000,000 times
Isolation EN 61810-5	6Kv
Power consumption Pmax 24V/230V	408 / 900mW
On-delay / release time	7 / 15ms
Temp. operating / storage	-40....70°C / -40...85°C

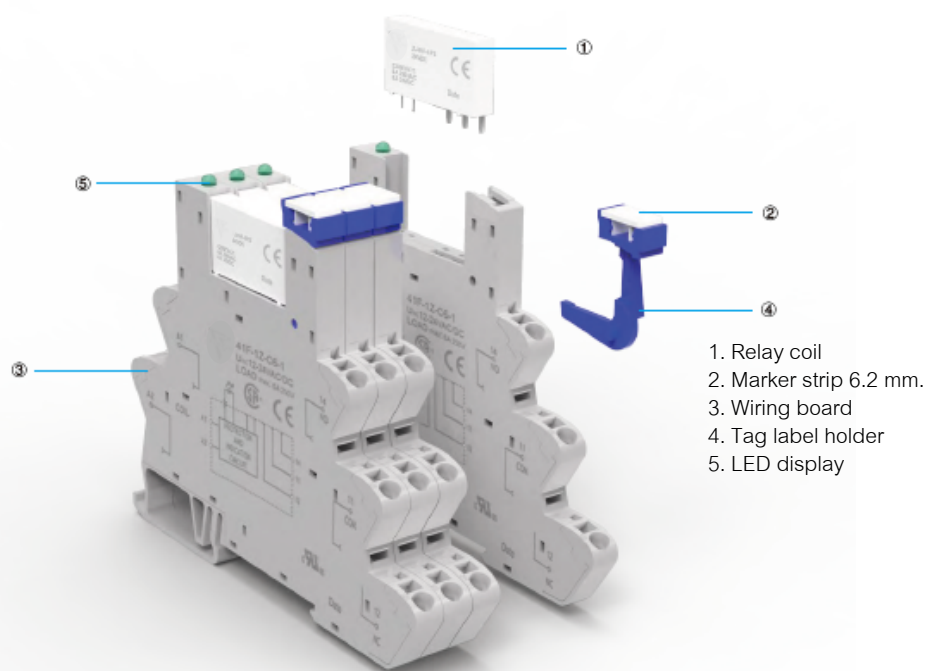
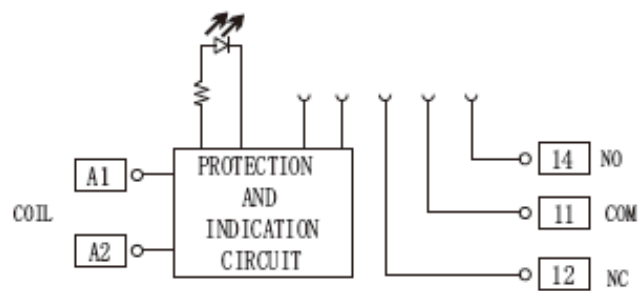
41F Combo with cage clamp terminals

Nominal coil voltage	Order no.
24VDC	41F-1Z-C4-5
220VAC	41F-1Z-C4-4
Solid state relay (SSR)	41F-1Z-C4-N-1
Other voltage	Can be generate the order no.

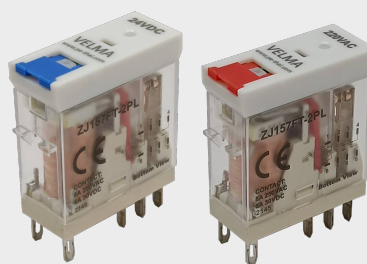
Dimension (mm.)



Circuit diagram



ZJ157FT



FEATURES

- Relay module up to 8 A 250V, different contact materials
- Lockable test button models available
- Built-in mechanical operation indicator
- LED status display
- High switching power (1-pole: 12 A) (2-pole: 8A)
- Jumper link 8 pin & Diode protection (option)
- Available with a working temperature of 105°C

SPECIFICATION

Technical data

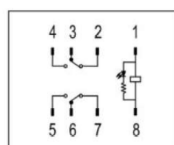
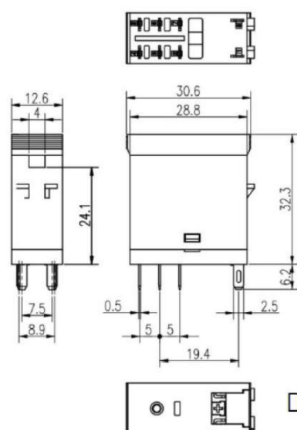
DESCRIPTION

For PLC's and process control high power contact AgNi with screw terminals 157F-2Z-C3 and 157F-2Z-C4 Recommended Max. load 250V 12 A resistive link option.

Order no.

ZJ157FT-2PLD/D24	Coil 24VDC with Diode
ZJ157FT-2PLD/A220	Coil 220VAC

Contact	1-CO (1NO/1NC) 2-CO (2NO/2NC)
Switching current	12 A 250V AC 8 A 250V AC
Rate voltage	250VAC / 30VDC Max.
Switching power	3000VA, 360W
Contact Material	Ag alloy
Initial contact resistance	Less than 50 mOhms
Peak inrush current	15A / 2.5 ms
Operating time	<20 ms
Release time	<10 ms
Power consumption	DC 0.53W / AC1.0W
Electrical endurance	> 50,000,000 times
Temp. operating / storage	-40....65°C / -40...85°C
Weight	20 g.
Shock resistance	10G
Vibration resistance	10 - 55 Hz
Insulation resistance	>10000 M.Ohms (500VDC)
Cordend length	10 mm. / 12 mm.



Wiring Diagram

Dimensions:

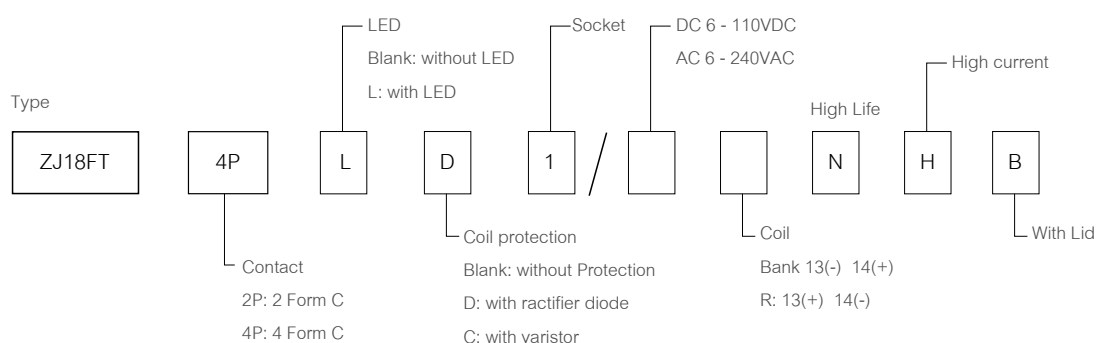


General purpose relay High current

ZJ18FTN-B

FEATURES

- Relay module up to 10 A 250V, different contact materials
- Lockable test button models available
- Built-in mechanical operation indicator
- LED status display
- High switching power (2-CO: 10 A) (4-CO: 5A)
- Relays with AC and DC coils have different
- RoHS complaint



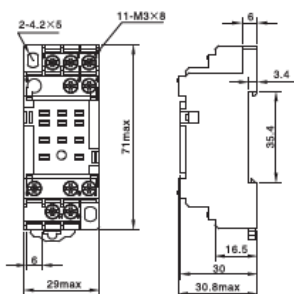
SPECIFICATION

Technical data

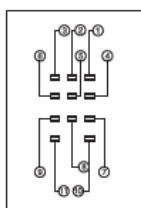
Contact	2 Pole (2-CO)	4 Pole (4-CO)
Load	Resistive load	Resistive load
Contact configuraion	2C Form C	4C Form C
Contact material	Ag	Ag
Rate current	10 A	5 A
Maximum switching capacity	2500VA 300W	660VA 72W
Contact resistance	50 mOhms	100 mOhm
Operating time	20ms max	20ms max
Release time	20ms max	20ms max
Dielectric strength	AC2000V 50/60Hz 1min	AC2000V 50/60Hz 1min
Vibration resistance	10 to 55 to 10 Hz,	10 to 55 to 10 Hz,
Shock resistance	200m/s (approx.20g)	200m/s (approx.20g)
Endurance	50,000,000 operations	50,000,000 operations
Ambient humidity	5~85%RH	5~85%RH
Weight	35g	35g
Coil support (Customer order)	12, 24, 48, 60VDC / 24, 250VAC	12, 24, 48, 60VDC / 24, 250VAC

SOCKET 2-Pole (2-CO)

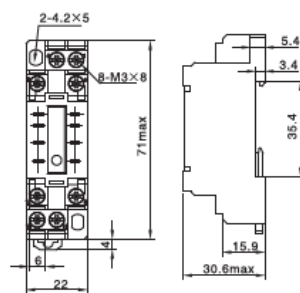
18F-3Z-C2



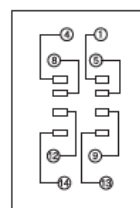
接线图 /Wiring Diagram



18F-2Z-C2

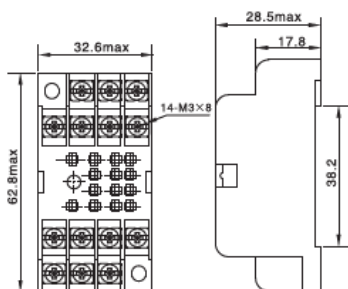


接线图 /Wiring Diagram

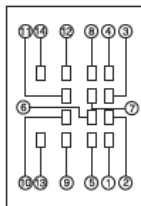


SOCKET 4-Pole (4-CO)

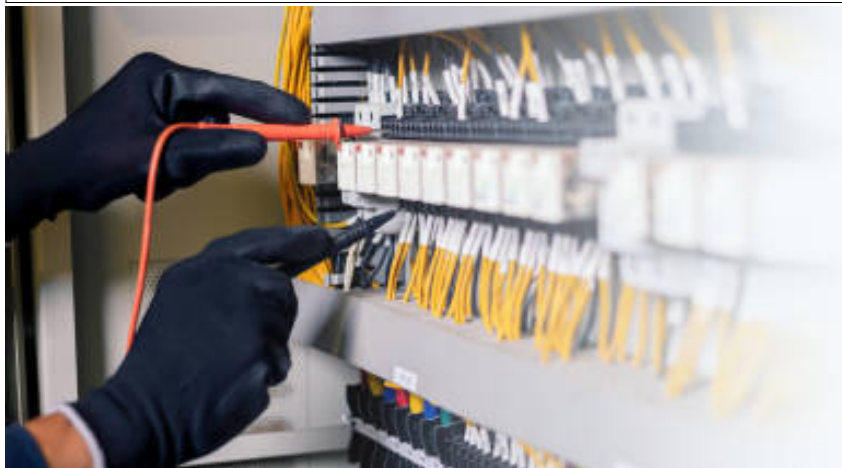
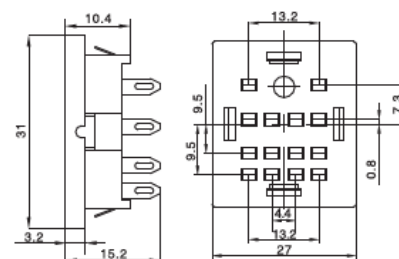
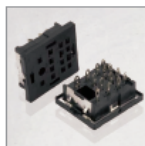
18F-4Z-B



接线图 /Wiring Diagram

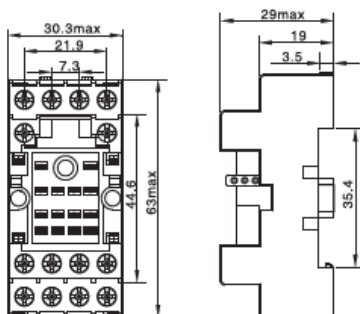


18F-4Z-A

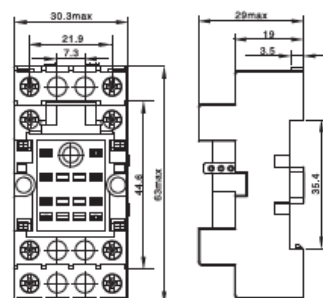


SOCKET 4-Pole (4-CO)

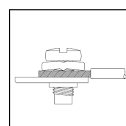
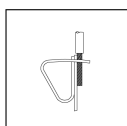
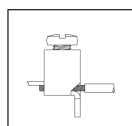
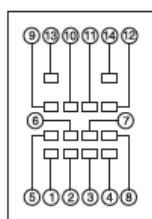
18F-4Z-C7



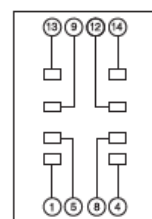
18F-2Z-C7



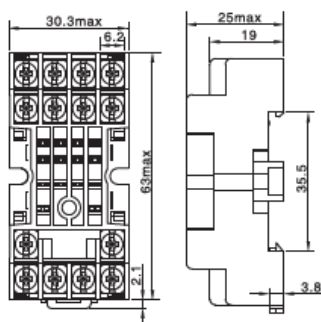
接线图 / Wiring Diagram



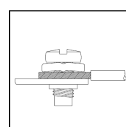
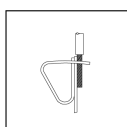
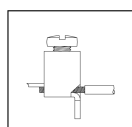
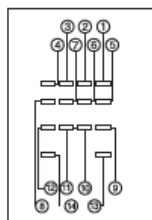
接线图 / Wiring Diagram



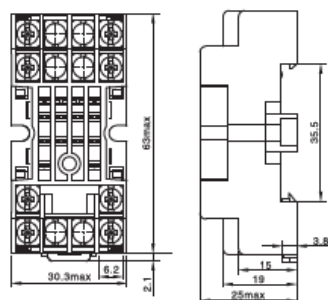
18F-4Z-C6



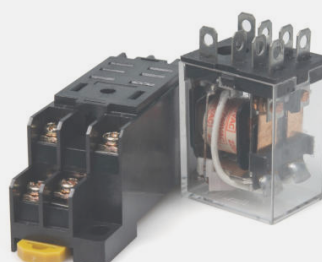
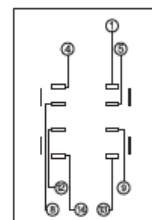
接线图 / Wiring Diagram



18F-2Z-C6



接线图 / Wiring Diagram



Push-in socket relay

Use with Relay model: ZJ157F



FEATURES

- Push-in wiring with integrated push button.
- A single terminal is equipped with two Push-in sockets.
- Connect via bridge.
- Marker label holder with printable labels.

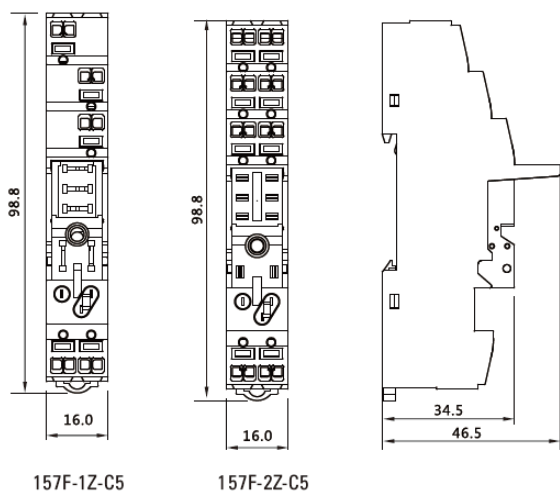


157F Push-in Socket

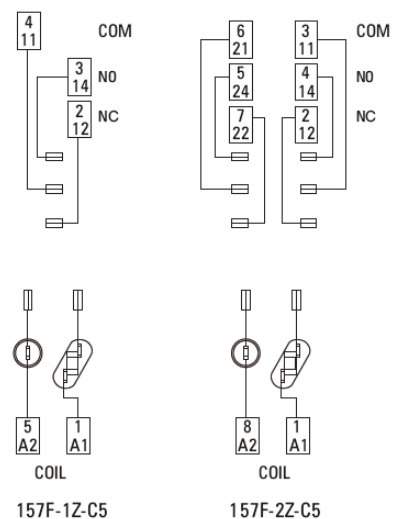
Technical data

Type	157F-1Z-C5	157F-2Z-C5
Number of contact	1-CO SPST (1NO/1NC)	2-CO DPDT (2NO/2NC)
Normal load current	16 A	10 A
Nominal load voltage	300 V	300 V
Stripping length	8 - 10 mm.	8 - 10 mm.
Wire size	0.5 - 2.5 Sq.mm. (21 AWG)	0.5 - 2.5 Sq.mm. (21 AWG)
Dielectric strength	2500V/min	2500V/min
Connection	Spring push-in	Spring push-in

157F Dimension



157F Pin layout



Push-in socket relay

Use with Relay model: ZJ18FTN-B



FEATURES

- Push-in wiring with integrated push button.
- A single terminal is equipped with two Push-in sockets.
- Connect via bridge.
- Marker label holder with printable labels.

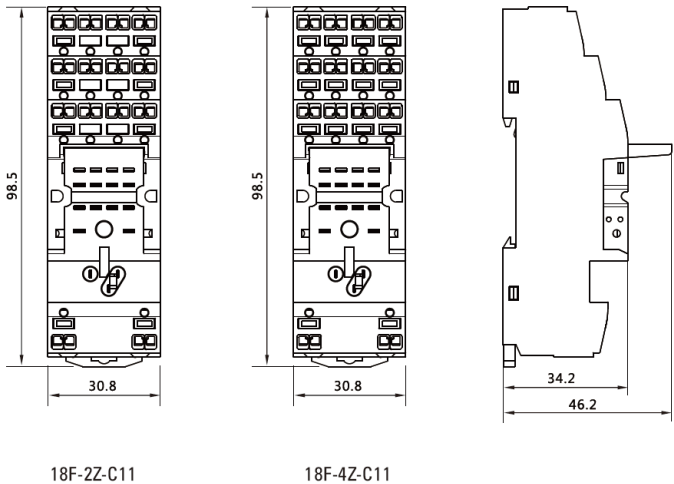


18F Push-in Socket

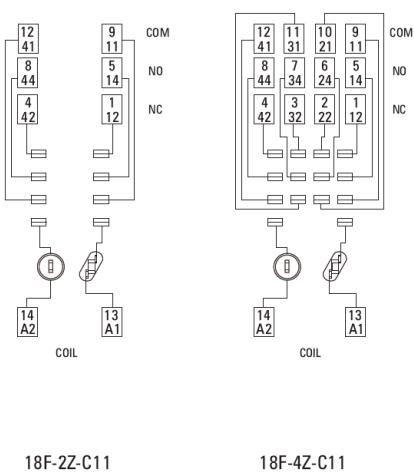
Technical data

Type	18F-2Z-C11	18F-4Z-C11
Number of contact	2-CO (2NO/2NC)	4-CO (4NO/4NC)
Norminal load current	12 A	8 A
Nominal load voltage	300 V	300 V
Stripping length	8 - 10 mm.	8 - 10 mm.
Wire size	0.5 - 2.5 Sq.mm. (21 AWG)	0.5 - 2.5 Sq.mm. (21 AWG)
Dielectric strength	2500V/min	2500V/min
Connection	Spring push-in	Spring push-in

18F Dimension



18F Pin layout



157F Relay socket 157F-2Z-C3



157F Relay socket 157F-1Z-C4



157F Relay socket 157F-2Z-C4

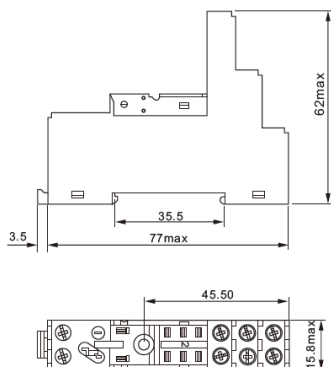


Specified Load	Current	10A
	Voltage	300V
Medium pressure	4000V	
Wire strip length	7 mm.	
Wire cross section	Single wire 2x2.5 sq.mm.	
	Casing wire 2x1.5 sq.mm.	
Screw torque	0.5 Nm.	
Temperature range	-25 to +85 'C	

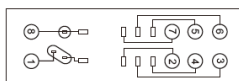
Specified Load	Current	16A
	Voltage	300V
Medium pressure	4000V	
Wire strip length	7 mm.	
Wire cross section	Single wire 2x2.5 sq.mm.	
	Casing wire 2x1.5 sq.mm.	
Screw torque	0.5 Nm.	
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	Voltage	300V
Medium pressure	4000V	
Wire strip length	7 mm.	
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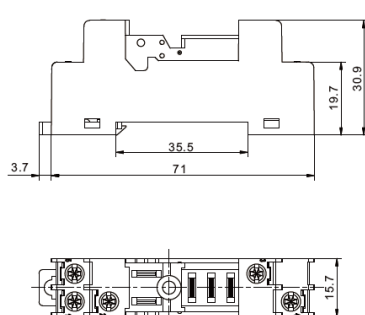
外形尺寸图 Dimensions



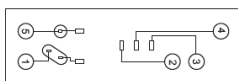
接线图 Wiring Diagram



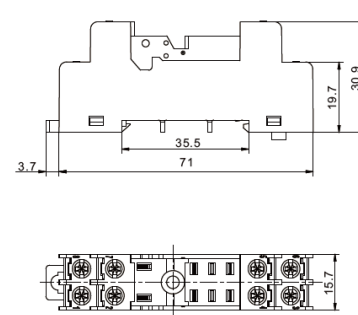
外形尺寸图 Dimensions



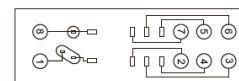
接线图 Wiring Diagram



外形尺寸图 Dimensions



接线图 Wiring Diagram





The company & Product of Thailand
VELMA give you more profit



VELMA

PE Automation Co.,Ltd.

10510 Bangkok

Thailand

You can find local sales on PE Automation Website
www.pe-thai.com



VELMA