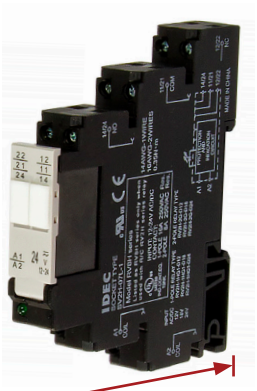
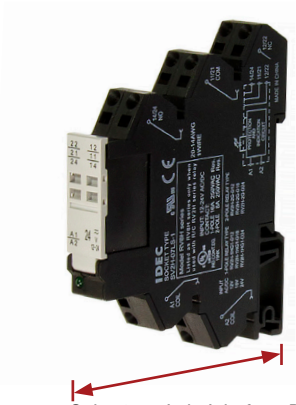
14mm Interface Relays:
RV8 Series

Screw Terminal



Only 70mm in height from DIN rail

Spring Clamp Terminal



Only 70mm in height from DIN rail

SPECIFICATIONS

Number of Poles		1-pole	2-pole
Contact Configuration		1C (SPDT)	2C (DPDT)
Contact Material		AgNi	AgNi (Au-plated)
Degree of Protection		IP20	IP20
Dielectric strength	Between contact and coil	5,000V AC for 1 minute	5,000V AC for 1 minute
	Between contacts of the same pole	1,000V AC for 1 minute	1,000V AC for 1 minute
	Between contact sets	-	2,500V AC for 1 minute
Vibration Resistance	Operating extremes	10 to 55Hz, amplitude 0.75mm (NO contact), 0.175mm (NC contact)	10 to 55Hz, amplitude 0.75mm (NO contact), 0.1mm (NC contact)
	Damage limits	10 to 55Hz, amplitude 0.75mm (NO contact), 0.175mm (NC contact)	10 to 55Hz, amplitude 0.75mm (NO contact), 0.1mm (NC contact)
Shock Resistance	Operating extremes	98m/s² (NO)	98m/s² (NO)
	Damage limits	980m/s²	980m/s²
Electrical Life - Screw terminal		AC load:30,000 operations minimum (250V AC, 16A resistive load, operation frequency 360 operation per hour)	AC load:100,000 operations minimum (250V AC, 8A resistive load, operation frequency 360 operation per hour)
Electrical Life - Spring Clamp terminal		AC load:30,000 operations minimum (250V AC, 12A resistive load, operation frequency 360 operation per hour)	AC load:100,000 operations minimum (250V AC, 6A resistive load, operation frequency 360 operation per hour)
Mechanical Life (no load)		10,000,000 operations minimum (Operation frequency 18,000 operations per hour)	10,000,000 operations minimum (Operation frequency 18,000 operations per hour)
Operating Temperature		RV8H-1L1-D6, D9, D12, D18, D24, AD12, AD18, AD24, AD48, AD60, AD110 : -40 to +70°C (Contact current 12A max, 6A per terminal) no freezing : -40 to +55°C (Contact current 16A max, 8A per terminal) no freezing	RV8H-2L-D6, D9, D12, D18, D24, AD12, AD18, AD24, AD48, AD60, AD110 : -40 to +70°C (Contact current 6A max) no freezing : -40 to +55°C (Contact current 8A max) no freezing
		RV8H-1L1- AD220 : -40 to +55°C (Contact current 16A max, 8A per terminal) no freezing	RV8H-2L- AD220 : -40 to +55°C (Contact current 8A max) no freezing
		RV8H-1S1-D6, D9, D12, D18, D24, AD12, AD18, AD24, AD48, AD60, AD110 : -40 to +70°C (Contact current 12A max, 6A per terminal) no freezing	RV8H-2S-D6, D9, D12, D18, D24, AD12, AD18, AD24, AD48, AD60, AD110 : -40 to +70°C (Contact current 6A max) no freezing
		RV8H-1S1- AD220 : -40 to +55°C (Contact current 12A max, 6A per terminal) no freezing	RV8H-2S- AD220 : -40 to +55°C (Contact current 6A max) no freezing
Operating Humidity		5 to 85% (no condensation)	5 to 85% (no condensation)
Weight		Screw Terminal: Approx.52g Spring Clamp Terminal: Approx. 49g	Screw Terminal: Approx. 52g Spring Clamp Terminal: Approx. 49g

PRODUCT DESCRIPTION

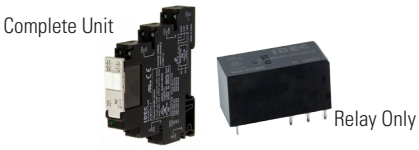
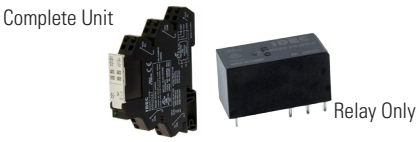
With the addition of a 14mm version, IDEC offers a complete line of RV8 interface relays. Ideal for panels with limited room, these low-profile relays provide up to a 40% reduction in DIN rail space when compared with standard plug-ins. RV8 relays are good for higher load switching applications, panels with high I/O content and commercial HVAC panels. UL listed when paired with a corresponding socket, it's easy to save space with new RV8 models.

KEY FEATURES

- Space-saving 14mm width.
- Universal AC/DC socket with built-in surge suppression and green LED Indicator
- Gold plated contacts (2-pole model only)
- Pre-assembled relay and DIN mount socket
- Universal screw terminals (flat and Philips) or spring clamp terminals
- Only 70 mm in height from DIN rail
- Release lever for easy locking and removal of relay
- Wide input voltage range: 6 to 240V
- High dielectric strength and impulse withstand voltages.
- Reverse polarity protected
- RoHS compliant

CE c UL us
(when using combination of RV relay and SV socket)

PART NUMBERS

		Screw Terminals				Spring Clamp Terminals			
									
Input voltage		1-pole		2-pole		1-pole		2-pole	
		Complete Part Number	Replacement (Relay Only)	Complete Part Number	Replacement (Relay Only)	Complete Part Number	Replacement (Relay Only)	Complete Part Number	Replacement (Relay Only)
DC	6V	RV8H-1L1-D6	RV2H-1HG1-D5	RV8H-2L-D6	RV2H-2G-D5	RV8H-1S1-D6	RV2H-1HG1-D5	RV8H-2S-D6	RV2H-2G-D5
	9V	RV8H-1L1-D9	RV2H-1HG1-D9	RV8H-2L-D9	RV2H-2G-D9	RV8H-1S1-D9	RV2H-1HG1-D9	RV8H-2S-D9	RV2H-2G-D9
	12V	RV8H-1L1-D12	RV2H-1HG1-D12	RV8H-2L-D12	RV2H-2G-D12	RV8H-1S1-D12	RV2H-1HG1-D12	RV8H-2S-D12	RV2H-2G-D12
	18V	RV8H-1L1-D18	RV2H-1HG1-D18	RV8H-2L-D18	RV2H-2G-D18	RV8H-1S1-D18	RV2H-1HG1-D18	RV8H-2S-D18	RV2H-2G-D18
	24V	RV8H-1L1-D24	RV2H-1HG1-D24	RV8H-2L-D24	RV2H-2G-D24	RV8H-1S1-D24	RV2H-1HG1-D24	RV8H-2S-D24	RV2H-2G-D24
AC/DC	12V	RV8H-1L1-AD12	RV2H-1HG1-D12	RV8H-2L-AD12	RV2H-2G-D12	RV8H-1S1-AD12	RV2H-1HG1-D12	RV8H-2S-AD12	RV2H-2G-D12
	18V	RV8H-1L1-AD18	RV2H-1HG1-D18	RV8H-2L-AD18	RV2H-2G-D18	RV8H-1S1-AD18	RV2H-1HG1-D18	RV8H-2S-AD18	RV2H-2G-D18
	24V	RV8H-1L1-AD24	RV2H-1HG1-D24	RV8H-2L-AD24	RV2H-2G-D24	RV8H-1S1-AD24	RV2H-1HG1-D24	RV8H-2S-AD24	RV2H-2G-D24
	48V	RV8H-1L1-AD48	RV2H-1HG1-D48	RV8H-2L-AD48	RV2H-2G-D48	RV8H-1S1-AD48	RV2H-1HG1-D48	RV8H-2S-AD48	RV2H-2G-D48
	60V	RV8H-1L1-AD60	RV2H-1HG1-D60	RV8H-2L-AD60	RV2H-2G-D60	RV8H-1S1-AD60	RV2H-1HG1-D60	RV8H-2S-AD60	RV2H-2G-D60
	110V - 125V	RV8H-1L1-AD110	RV2H-1HG1-D110	RV8H-2L-AD110	RV2H-2G-D110	RV8H-1S1-AD110	RV2H-1HG1-D110	RV8H-2S-AD110	RV2H-2G-D110
	220V - 240V	RV8H-1L1-AD220	RV2H-1HG1-D110	RV8H-2L-AD220	RV2H-2G-D110	RV8H-1S1-AD220	RV2H-1HG1-D110	RV8H-2S-AD220	RV2H-2G-D110

RATINGS

Coil Ratings

Rated Voltage		Operating Characteristics (Against Rated Voltage)						Power Consumption (W)		
		Minimum Pickup Voltage (at 23°C)	Dropout Voltage (at 23°C)	Maximum Allowable Voltage (at 23°C)	Maximum Continuous Applied Voltage (Note 1)	Operation time	Release time	DC	AC (50Hz)	AC (60Hz)
DC	6V	80% max	7% min	120%	110% (Note 2)	15ms max	15ms max	0.45	-	-
	9V							0.40	-	-
	12V							0.38	-	-
	18V							0.43	-	-
	24V							0.48	-	-
AC/DC	12V			110%				0.38	0.35	0.35
	18V							0.43	0.43	0.43
	24V							0.48	0.50	0.50
	48V							0.36	0.43	0.43
	60V							0.46	0.54	0.54
	110V - 125V							0.64	0.73	0.73
	220V - 240V							1.10	1.25	1.32

Note 1: At rated operating temperature
Note 2: Rated Voltage AC/DC 240V : 106%

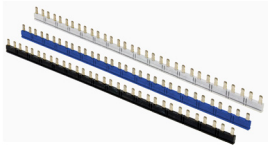
Contact Ratings

		Srew Terminal	Spring Clamp Terminal
Allowable contact power	Resistive load	1-pole 4,000VA	1-pole 3,000VA
		2-pole 2,000VA	2-pole 1,500VA
	Inductive load	B300 (pilot duty)	B300 (pilot duty)
Rated Load	Resitive load	1-pole 250V AC, 16A (8A per terminal) at 55°C, 12A (6A per terminal) at 70°C	1-pole 250V AC, 12A (6A per terminal) at 70°C
		2-pole 250V AC, 8A at 55°C, 6A at 70°C	2-pole 250V AC, 6A at 70°C
	Inductive load	B300 (pilot duty)	B300 (pilot duty)
Allowable Switching Current		1-pole 16A (8A per terminal) at 55°C, 12A (6A per terminal) at 70°C	1-pole 12A (6A per terminal) at 70°C
		2-pole 8A at 55°C, 6A at 70°C	2-pole 6A at 70°C
Allowable Switching Power		1-pole 4,000VA	1-pole 3,000VA
		2-pole 2,000VA	2-pole 1,500VA
Minimum Applicable Load (reference value)		1-pole 6VDC 100mA	1-pole 6VDC 100mA
		2-pole 5VDC 10mA	2-pole 5VDC 10mA

UL Ratings

		Screw Terminal		Spring Clamp Terminal	
	Voltage	1-Pole	2-Pole	1-Pole	2-Pole
Resistive	250V AC	16A (8A per terminal) at 55°C	8A at 55°C	-	-
		12A (6A per terminal) at 70°C	6A at 70°C	12A (6A per terminal) at 70°C	6A at 70°C

ACCESSORIES

Item	Color	Part Number
Jumper (32 combs, with 2-combs per relays, or 16 discrete relays.) Note 1, 2, 4 	Black	SV9Z-J232B
	Gray	SV9Z-J232W
	Blue	SV9Z-J232S
Spacer (circuit separator) Note 3, 4 	Light Grey	SV9Z-SA2W
Screwdriver 	-	BC1S-SD0

1. Jumper combs come with 16 pairs of combs, if shorter lengths are needed simply cut off the excess points.
2. Ensure that the total current to the jumper does not exceed the overall rated current (Rated current: 6A for spring-clamp terminals and 8A for screw type terminations).
3. Width of spacer: 2mm
4. When using a cut jumper, please use a spacer on the cut side. For additional information see instruction sheet.

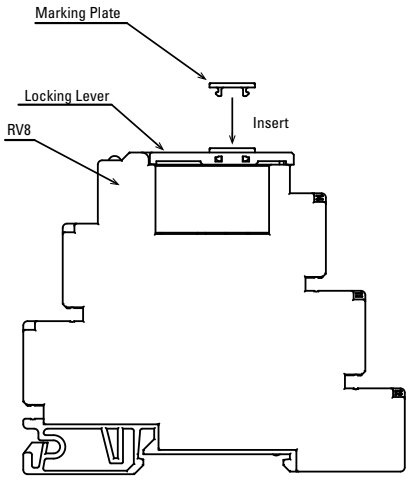
Marking Plates (Blank and Pre-marked)



Item	Part Number	Engraving
	SV9Z-PW10	blank
	SV9Z-PW10-①1-10	1-10
	SV9Z-PW10-①11-20	11-20
	SV9Z-PW10-①21-30	21-30
	SV9Z-PW10-①31-40	31-40
	SV9Z-PW10-①41-50	41-50
	SV9Z-PW10-①51-60	51-60
	SV9Z-PW10-①61-70	61-70
	SV9Z-PW10-①71-80	71-80
	SV9Z-PW10-①81-90	81-90
	SV9Z-PW10-①91-100	91-100
	SV9Z-PW10-①A-J	A-J
	SV9Z-PW10-①K-T	K-T
	SV9Z-PW10-①U-Z	U-Z
	SV9Z-PW10-①GROUND	⏚
	SV9Z-PW10-①AC	∿

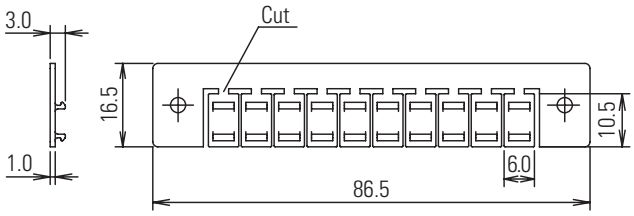
1. In place of ① insert orientation code: V=Vertical, H=Horizontal
2. Each unit has 10 pieces (marking plates).

Marking Plate Placement



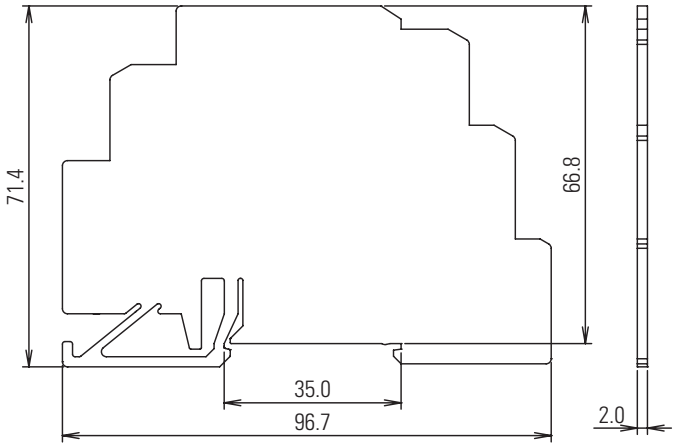
Dimensions (mm)

SV9Z-PW10* Marking Plate

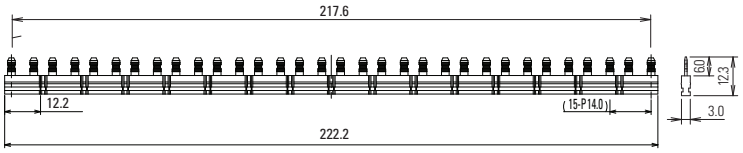


*Available blank or pre-marked.

SV9Z-SA2W Spacer



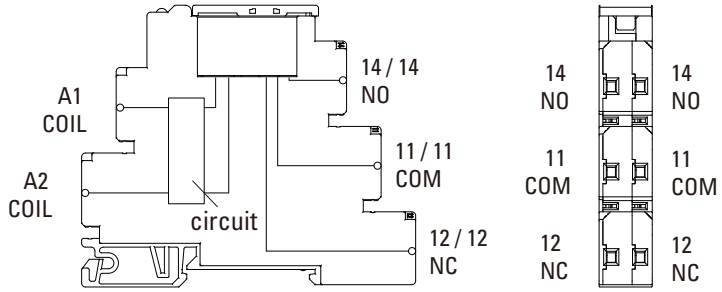
SV9Z-J232* Jumper



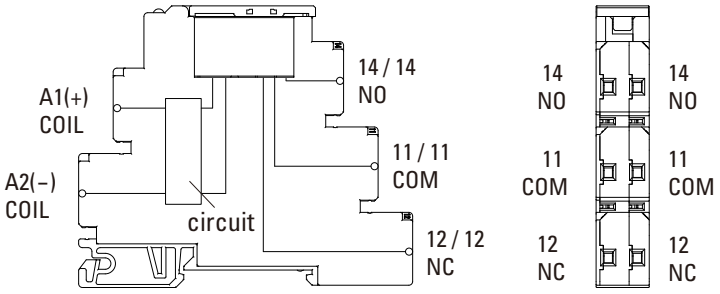
*Available in black, gray and blue.

INTERNAL CONNECTIONS

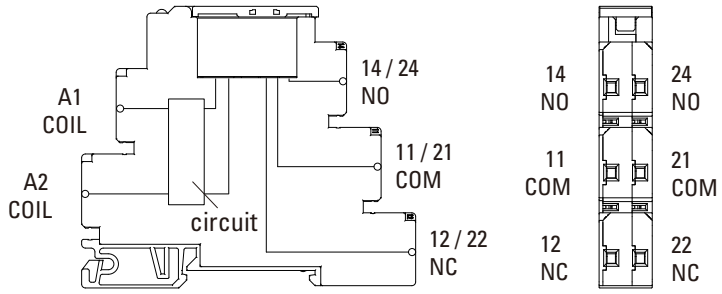
AC/DC Type (1-Pole)



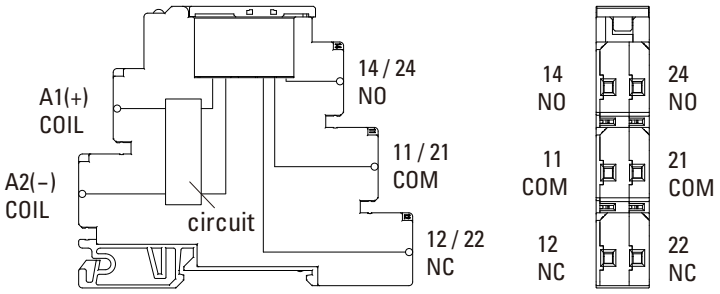
DC Type (1-Pole)



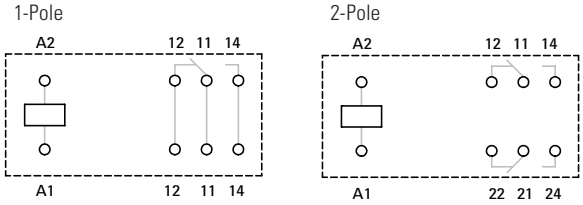
AC/DC Type (2-Pole)



DC Type (2-Pole)

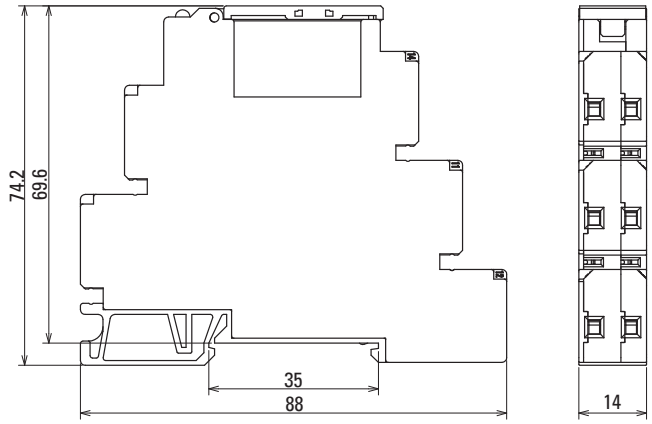


RV2H Replacement Relay

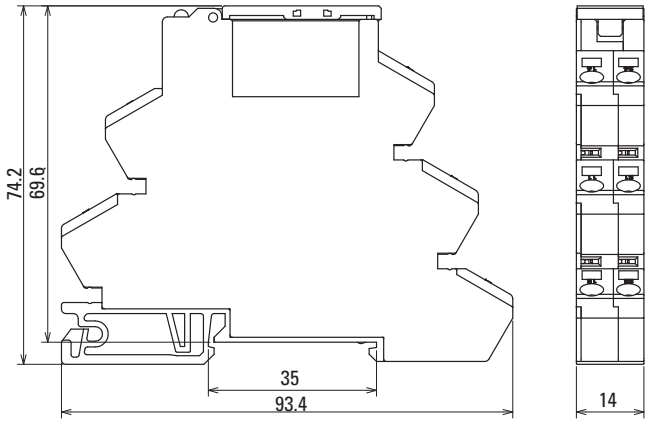


DIMENSIONS (mm)

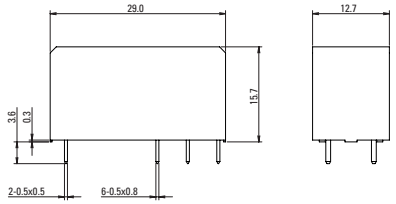
Screw Terminals



Spring Clamp Terminals

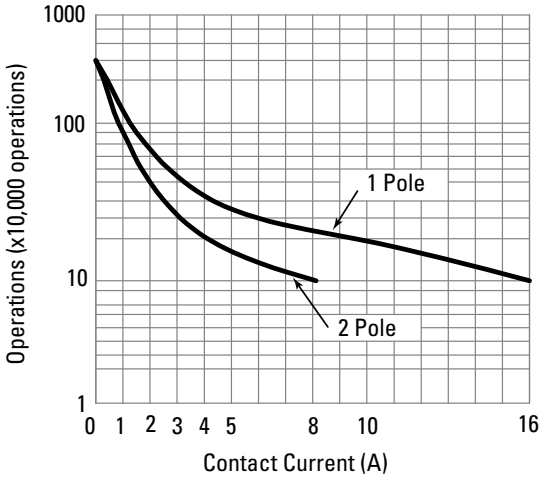


RV2H Replacement Relay (mm)



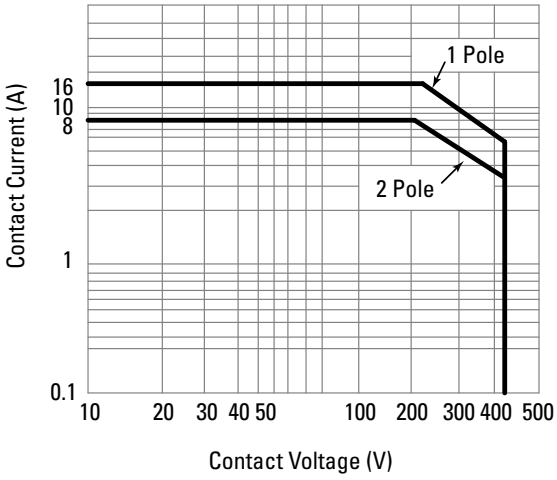
CHARACTERISTICS

Electrical Life Curve (AC Load)

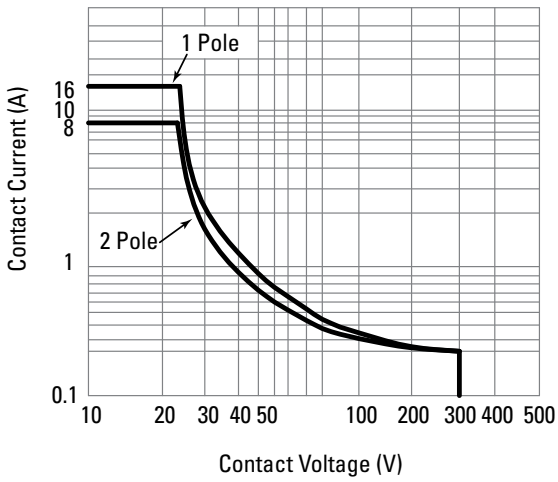


Contact Rating

AC



DC



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