Now available **Class I Div 2**

6mm Hazardous Location Interface Relays - RV8H Series

Screw Terminals

Top view with Marking Plate

Only 70mm from DIN rail!

Spring Clamp Terminals

Top view without Marking Plate

Only 70mm from DIN rail!

Key Features

- Class I, Division 2 and Class I, Zone 2 hazardous locations
- Space-saving 6mm width
- Only 70mm in height from DIN rail
- Gold-plated contacts
- Pre-assembled relay and DIN mount socket
- Universal screw terminals (flat and Phillips) or Spring clamp terminals
- Universal AC/DC socket with built-in surge suppression and green LED
- 6A contact rating
- Lever for easy locking and removal of relay
- Wide input voltage range: 6 to 240V
- High dielectric strength and impulse withstand voltages
- Operating Temperature: -40C ~ +70C
- Reverse Polarity protected
- 400V AC maximum switching voltage
- 1500VA maximum switching power
- RoHS compliant

CE

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

Specifications

Hazardous Location Rating		Class I, Division2, Groups A, B, C, D T4A Class I, Zone 2, AEx nA nC IIC T4 Class I, Zone 2, Ex nA nC IIC T4 X Gc UL/c-UL Listed
Number of Poles		1 pole
Contact Configuration		1 form C (SPDT)
Contact material		AgNi (Au plating)
Degree of Protection		IP20
Dielectric strength	Between contact and coil	4,000V AC for 1min
	Between pole	1,000V AC for 1min
Vibration Resistance	Operating extremes	NO: Frequency 10 to 55Hz, Amplitude 0.5mm NC: Frequency 10 to 55Hz, Amplitude 0.2mm
	Damage limits	
Shock Resistance	Operating extremes	NO: 49m/s^2 (5G) NC: 29.4m/s^2 (3G)
	Damage limits	980m/s^2 (10G)
Mechanical Life (without load)		Over 10,000,000 operations (operation frequency 18,000 operations per hour)
Operating Temperature		-40 to +70°C without freezing (-40 to +55°C for AD110 and AD220 coil voltages)
Operating Humidity		5 to 85% (without condensation)
Weight (approx.)		30g (RV8H-L), 26g (RV8H-S)

Part Numbers

Complete Part Numbers (Relay & Socket) and Replacement Relay

Coil voltage		Screw Terminals				Spring Clamp Terminals			
		Standard		Hazardous Location (Class I Div 2)		Standard		Hazardous Location (Class I Div 2)	
		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-L-D6	RV1H-G-D5	RV8H-L-D6-C1D2	RV1H-G-D5-C1D2	RV8H-S-D6	RV1H-G-D5	RV8H-S-D6-C1D2	RV1H-G-D5-C1D2
	9V	RV8H-L-D9	RV1H-G-D9	RV8H-L-D9-C1D2	RV1H-G-D9-C1D2	RV8H-S-D9	RV1H-G-D9	RV8H-S-D9-C1D2	RV1H-G-D9-C1D2
	12V	RV8H-L-D12	RV1H-G-D12	RV8H-L-D12-C1D2	RV1H-G-D12-C1D2	RV8H-S-D12	RV1H-G-D12	RV8H-S-D12-C1D2	RV1H-G-D12-C1D2
	18V	RV8H-L-D18	RV1H-G-D18	RV8H-L-D18-C1D2	RV1H-G-D18-C1D2	RV8H-S-D18	RV1H-G-D18	RV8H-S-D18-C1D2	RV1H-G-D18-C1D2
	24V	RV8H-L-D24	RV1H-G-D24	RV8H-L-D24-C1D2	RV1H-G-D24-C1D2	RV8H-S-D24	RV1H-G-D24	RV8H-S-D24-C1D2	RV1H-G-D24-C1D2
AC/DC	12V	RV8H-L-AD12	RV1H-G-D12	RV8H-L-AD12-C1D2	RV1H-G-D12-C1D2	RV8H-S-AD12	RV1H-G-D12	RV8H-S-AD12-C1D2	RV1H-G-D12-C1D2
	18V	RV8H-L-AD18	RV1H-G-D18	RV8H-L-AD18-C1D2	RV1H-G-D18-C1D2	RV8H-S-AD18	RV1H-G-D18	RV8H-S-AD18-C1D2	RV1H-G-D18-C1D2
	24V	RV8H-L-AD24	RV1H-G-D24	RV8H-L-AD24-C1D2	RV1H-G-D24-C1D2	RV8H-S-AD24	RV1H-G-D24	RV8H-S-AD24-C1D2	RV1H-G-D24-C1D2
	48V	RV8H-L-AD48	RV1H-G-D48	RV8H-L-AD48-C1D2	RV1H-G-D48-C1D2	RV8H-S-AD48	RV1H-G-D48	RV8H-S-AD48-C1D2	RV1H-G-D48-C1D2
	60V	RV8H-L-AD60	RV1H-G-D60	RV8H-L-AD60-C1D2	RV1H-G-D60-C1D2	RV8H-S-AD60	RV1H-G-D60	RV8H-S-AD60-C1D2	RV1H-G-D60-C1D2
	110V - 125V	RV8H-L-AD110	RV1H-G-D60	RV8H-L-AD110-C1D2	RV1H-G-D60-C1D2	RV8H-S-AD110	RV1H-G-D60	RV8H-S-AD110-C1D2	RV1H-G-D60-C1D2
	220V - 240V	RV8H-L-AD220	RV1H-G-D60	RV8H-L-AD220-C1D2	RV1H-G-D60-C1D2	RV8H-S-AD220	RV1H-G-D60	RV8H-S-AD220-C1D2	RV1H-G-D60-C1D2

Accessories

Description	Color	Part Number
Jumper (20 combs [Note 1]) Rated current: 6A [Note 2]	Black	SV9Z-J20B
	Gray	SV9Z-J20W
	Blue	SV9Z-J20S
Spacer (circuit separator) [Note 3]	-	SV9Z-SA2W
Screwdriver	-	BC1S-SD0

1. Jumper combs come with 20 points, 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.
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
Vertical Orientation	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
Horizontal Orientation	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).

Coil Ratings

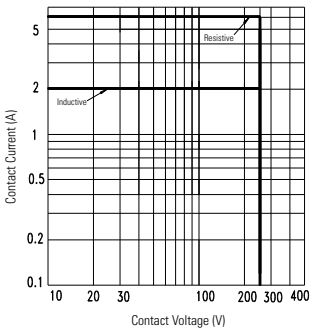
Rated Voltage		Rated Current +-15% (mA)	Circuit AC Resistance +-10% (Ω)	Circuit DC Resistance +-10% (Ω)	Operating Characteristics			Power Consumption
					Pickup Voltage	Dropout Voltage	Maximum Allowable voltage	
DC	6V	35	-	170	90% max	7% min	110%	0.21W
	9V	18.6	-	485				0.2W
	12V	14.6	-	820				0.2W
	18V	11.6	-	1550				0.2W
	24V	10.6	-	2270				0.25W
AC/DC	12V	15.5	755	800			110%	0.2W
	18V	13.3	1365	1345				0.25W
	24V	13.7	1730	1790				0.33W
	48V	4	11880	12230				0.2W
	60V	3.4	17600	17910				0.2W
	110V - 125V	3.4 - 3.9	31790 - 31890	32450 - 32900				0.5W
	220V - 240V	3.3 - 3.6	65670 - 66070	65940 - 68570				0.85W

Contact Rating

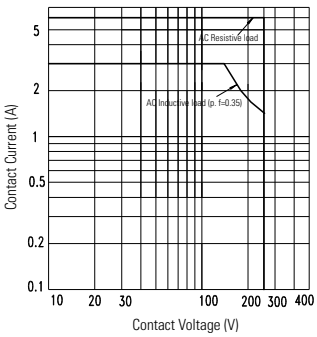
Max. Allowable Contact Power	Resistive load	1500VA, 180W DC
Rated Load	Resistive load	250V AC 6A, 30V DC 6A
Allowable Switching Current		6A
Allowable Switching Voltage		400V AC, 125V DC
Allowable Switching Power		1500VA, 180W DC
Minimum Applicable Load		6V DC/10mA

RV1H Relay

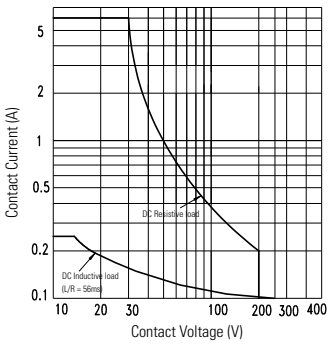
Contact Ratings



Maximum Switching Power AC

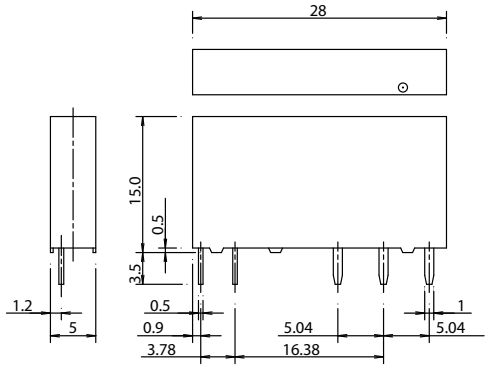


Maximum Switching Power DC



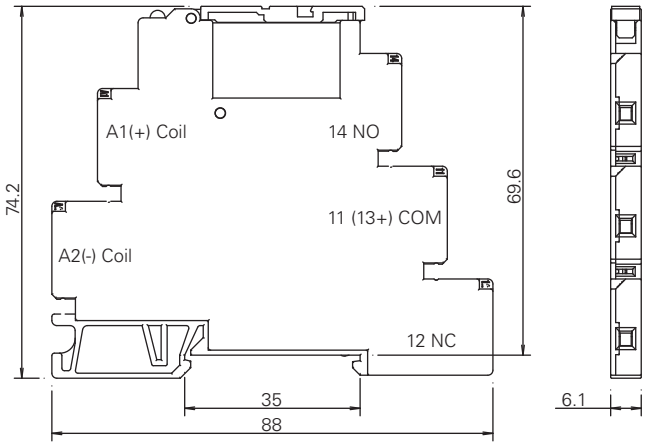
Dimensions (mm)

RV1H-G Relay

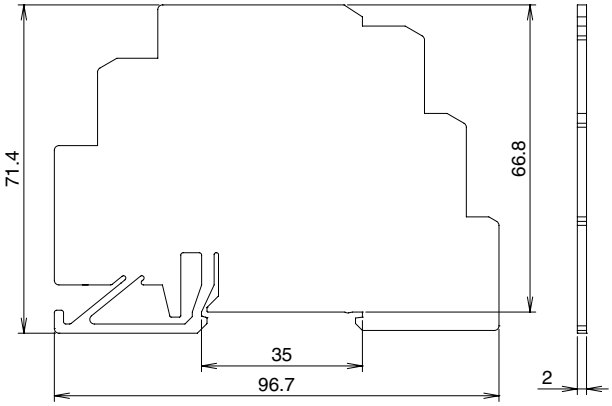


Note: Drawings are not to scale.

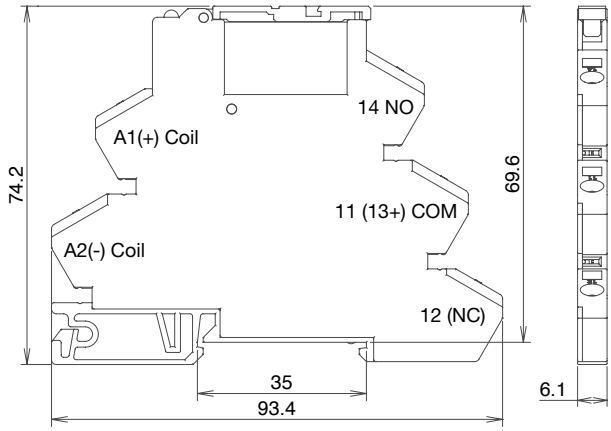
SV1H-07L Screw Terminals



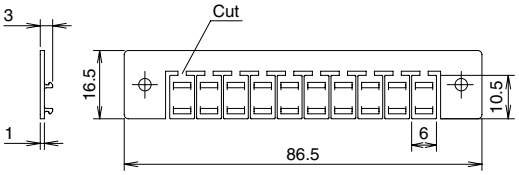
SV9Z-SA2W



RV8H-S Spring Clamp Terminals

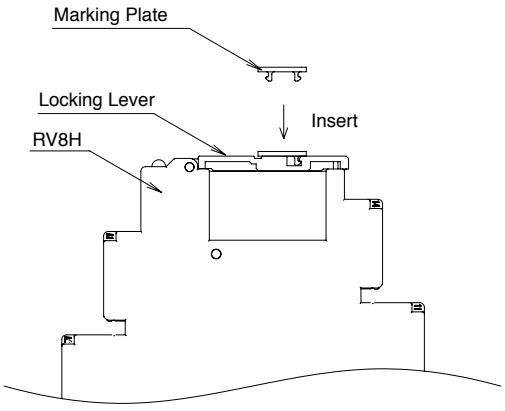


SV9Z-PW10*

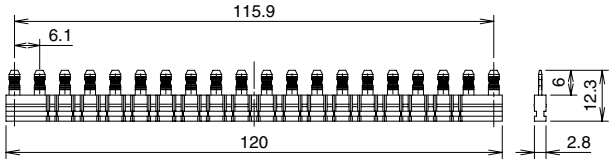


*Available blank or pre-marked.

Marking Plate Placement

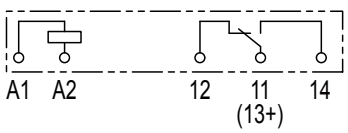


SV9Z-J20*



*Available in black, gray and blue.

Internal Connection (bottom view)



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