# Slim I/O Relay G2RV-SR/G3RV-SR

# Global standard size, low profile slim I/O relay with width 6.2 mm, slim I/O solid state relay

- Realized about 25% lower profile than conventional products, contributing to further miniaturization of the control panel.
- Push-In Plus technology are used to save wiring work in comparison with conventional screw terminals.
   (Wiring time is reduced by 60%\* in comparison with traditional screw terminals.)
- No screw loosening means maintenance-free application, realizing high reliability
- 'Hand-free' structure that holds an inserted flat-blade screwdriver to achieve easier wiring work for stranded wires.
- Screw terminal is also stocked to meet the screw type needs.
- Mounted relay or solid-state relay has a plug-in terminal that is difficult to bend at the time of exchange.
- \* According to OMRON actual measurement data from November 2015.



For the recent information on models that have been certified for safety standards, refer to your OMRON website.

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Refer to Safety Precautions on page 20.

# Slim I/O Relay Types

G2RV-SR series mounted relay: electromagnetic relay ...... from page 2
G3RV-SR series mounted relay: solid state relay ...... from page 10

# **Common matter**

Common precautions ...... from page 20
Common accessories (order separately)..... from page 24

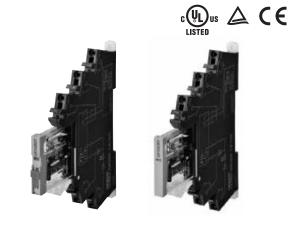
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# Slim I/O Relay G2RV-SR

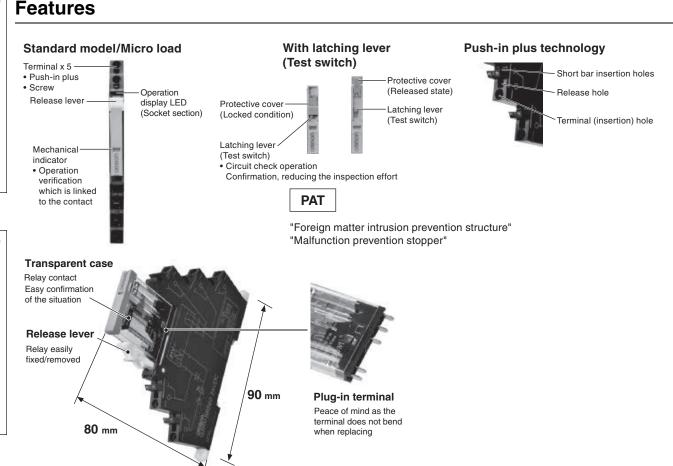
# Global standard size, low profile slim I/O relay with width 6.2 mm

- Realized about 25% lower profile than conventional products, contributing to further miniaturization of the control panel.
- Realized opening and closing ability with one pole 6 A slim shape.
- Micro load products for one pole 50 mA using Au-plated contacts for small load switching also available.
- Since G2RV is a transparent case, confirming the state of the contact with the naked eye is possible, and easy to confirm abnormality on-site (installed location).
- Screw terminal is also stocked to meet the screw type needs.
- Mounted relay uses plug-in terminals that are difficult to bend when exchanging.

Refer to Safety Precautions on page 20.



For the recent information on models that have been certified for safety standards, refer to your OMRON website.



# **Model Number Structure**

# **Model Number Legend**

 $\frac{\mathbf{G2RV-SR}}{(1)} \stackrel{\square}{\underset{(2)}{=}} \stackrel{\square}{\underset{(3)}{=}} \stackrel{\square}{\underset{(4)}{=}} \stackrel{\square}{\underset{(5)}{=}} \stackrel{\square}{\underset{(6)}{=}}$ 

(1) Basic model name G2RV: Slim I/O Relay **(3) Terminal (wire connection)** 50: Push-in plus technology

(5) Contact structure Blank: Standard AP: Microloads

(2) Sub type

SR: Slim relay + integrated low profile socket

(4) Latching lever (test switch)

0: Without latching lever1: With latching lever

70: Screw technology

(6) Rated input voltage

12, 24 VDC 24, 48 VAC/VC 100, 110, 200, 230 VAC

# **Ordering Information**

Terminal (Wire connection)	Classification	tion Latching lever (Test switch) Rated input voltage (V)		t voltage (V)	Model
			DC	12	G2RV-SR500 DC12
			DC	24	G2RV-SR500 DC24
			AC/DC	24	G2RV-SR500 AC/DC24
		No		48	G2RV-SR500 AC/DC48
	Ctondord	INO		100	G2RV-SR500 AC100
	Standard		AC	110	G2RV-SR500 AC110
			AC	200	G2RV-SR500 AC200
				230	G2RV-SR500 AC230
Push-in plus		V	DC	24	G2RV-SR501 DC24
technology		Yes	AC/DC	24	G2RV-SR501 AC/DC24
			D.O.	12	G2RV-SR500-AP DC12
			DC	24	G2RV-SR500-AP DC24
			10/00	24	G2RV-SR500-AP AC/DC24
		No	AC/DC	48	G2RV-SR500-AP AC/DC48
	Microloads		AC	100	G2RV-SR500-AP AC100
				110	G2RV-SR500-AP AC110
				200	G2RV-SR500-AP AC200
				230	G2RV-SR500-AP AC230
			DC	12	G2RV-SR700 DC12
				24	G2RV-SR700 DC24
			AC/DC	24	G2RV-SR700 AC/DC24
				48	G2RV-SR700 AC/DC48
		No		100	G2RV-SR700 AC100
	Standard			110	G2RV-SR700 AC110
			AC	200	G2RV-SR700 AC200
				230	G2RV-SR700 AC230
•		.,	DC	24	G2RV-SR701 DC24
Screw technology		Yes	AC/DC	24	G2RV-SR701 AC/DC24
				12	G2RV-SR700-AP DC12
			DC	24	G2RV-SR700-AP DC24
				24	G2RV-SR700-AP AC/DC24
			AC/DC	48	G2RV-SR700-AP AC/DC48
	Microloads	No		100	G2RV-SR700-AP AC100
				110	G2RV-SR700-AP AC110
			AC	200	G2RV-SR700-AP AC200
				230	G2RV-SR700-AP AC230

Note: Solid wire cannnot be used for Push-in plus technology, make sure to use stranded wire or stranded wire with ferrules.

# **Relay for Maintenance**

# **Model Number Legend**

G2RV-<u>1</u> - <u>S</u> <u> </u>- <u> </u>- <u>G</u>

 $\overline{(1)}$   $\overline{(2)}\overline{(3)}$   $\overline{(4)}$   $\overline{(5)}$   $\overline{(6)}$ 

(1) No. of poles

1: 1 pole

(2) Terminal S: plug-in

(3) Latching lever (Test switch)

Blank: Without latching lever I: With latching lever

(4) Contact material

Blank: Ag alloy

AP: Ag alloy + Au plating

(5) Types of relay for exchange

G: G2RV-SR series equipped Relay

(6) Rated coil voltage Number: 11, 21, 48 VDC G2RV-1-SI-G



G2RV-1-S(-AP)-G



## **List of Models**

Туре	Latching Lever (Test switch)	Rated coil voltage (V)		Model	Applicable model
			11	G2RV-1-S-G DC11	G2RV-SR700/500 DC12V
			21	G2RV-1-S-G DC21	G2RV-SR700/500 DC24V
			21	G2NV-1-3-G DC21	G2RV-SR700/500 AC/DC24V
	No	DC			G2RV-SR700/500 AC/DC48V
Standard	INO	DC			G2RV-SR700/500 AC100V
Sianuaru			48	G2RV-1-S-G DC48	G2RV-SR700/500 AC110V
					G2RV-SR700/500 AC200V
					G2RV-SR700/500 AC230V
	Yes	DC	21	G2RV-1-SI-G DC21	G2RV-SR701/501 DC24V
	res	DC	21	G2RV-1-51-G DC21	G2RV-SR701/501 AC/DC24V
			11	G2RV-1-S-AP-G DC11	G2RV-SR700/500-AP DC12V
			21	G2RV-1-S-AP-G DC21	G2RV-SR700/500-AP DC24V
			21	G2RV-1-5-AP-G DC21	G2RV-SR700/500-AP AC/DC24V
Microlood	No	DC			G2RV-SR700/500-AP AC/DC48V
Microload No	INO	DC			G2RV-SR700/500-AP AC100V
			48	G2RV-1-S-AP-G DC48	G2RV-SR700/500-AP AC110V
					G2RV-SR700/500-AP AC200V
					G2RV-SR700/500-AP AC230V

# **Specifications**

# **Ratings**

# **Coil ratings**

Rated input		Rated curre	ent	Must operate voltage	Must release voltage	Power cor	nsumption	Maximum allowable voltage
voltage		AC	DC	Percentage of t	he rated voltage	AC (VA)	DC (mW)	Percentage of the
	50 Hz	60 Hz		reicentage of t	ne rateu voltage	AC (VA)	DC (IIIV)	rated voltage
12 VDC	_	-	27.9 mA			_	Approx. 300 mW	
24 VDC	_	-	13.5 mA			-	Approx. 300 mW	
24 VAC/VDC	12.5 mA	12.6 mA	12.6 mA			Approx. 0.5 VA	Approx. 300 mW	
48 VAC/VDC	5.9 mA	6.1 mA	5.2 mA	80% max.*	10% min.	Approx. 0.4 VA	Approx. 250 mW	110%
100 VAC	5.9 mA	6.0 mA	-	80% max.	10% 11111.	Approx. 0.8 VA	_	110%
110 VAC	5.9 mA	5.9 mA	-			Approx. 0.8 VA	_	
200 VAC	3.6 mA	4.3 mA	-			Approx. 1.7 VA	_	
230 VAC	3.8 mA	4.5 mA	-			Approx. 1.7 VA	_	

**Note:** The operating characteristics are measured at ambient temperature of 23°C.

# **Contact ratings**

Item	Standard (G2RV-SR700, 500, 701, 501)		For microloads (G2RV-SR700-AP, 500-AP) *2
Contact configuration	SPDT		·
Load	Resistive load (cosφ=1)	Inductive load (cosφ=0.4, L/R=7ms)	Resistive load (cosφ=1)
Rated load	6 A at 250 VAC 6 A at 30 VDC	2.5 A at 250 VAC 2 A at 30 VDC	50 mA at 30 VAC 50 mA at 36 VDC
Rated carry current	6 A		50 mA
Maximum switching voltage	440 VAC, 125 VDC		30 VAC, 36 VDC
Maximum switching current	6 A		50 mA
Maximum switching power	1,500 VA 180 W 500 VA 60 W		-
Failure rate P value (reference value) *1	10 mA at 5 VDC		1 mA at 100 mVDC

<sup>\*1.</sup> P level: λ60=0.1×10<sup>-6</sup>/times

# **Characteristics**

Item		Standard (G2RV-SR700, 500, 701, 501)	For microloads (G2RV-SR700-AP, 500-AP)				
Contact resistance	*	100 m Ω max.					
Operate (Set) time	*	20 ms max.					
Release time *		AC, AC/DC: 40 ms max. DC: 20 ms max.					
Maximum operating	g frequency	Mechanical: 18,000 operations/h Electrical: 1,800 operations/h (rated load)					
Insulation resistan	се	1,000 MΩ min. (at 500 VDC)					
Dielectric strength  Between coil and contacts: 4,000VAC 50/60 Hz 1 min Contact between the same polarity: 1,000 VAC 50/60 Hz 1 min							
Vibration resistance	е	Destruction: 10 to 55 to 10 Hz, single amplitude 0.50 Malfunction: 10 to 55 to 10 Hz, single amplitude 0.50					
Shock resistance		Destruction: 1,000 m/s <sup>2</sup> Malfunction: Energized 200m/s <sup>2</sup> , Non-energized 100m/s <sup>2</sup>					
	Mechanical	5,000,000 operations min.					
Endurance *	Electrical	NO contact: 70,000 operations min.  NC contact: 50,000 operations min.  5,000,000 operations min.					
Ambient operating	temperature	Operating: -40 to +55°C (with no icing or condensation)					
Ambient operating humidity		Operating: 5 to 85% RH					
Weight		Approx. 30 g					
Contact material		Ag alloy Ag alloy + Au plating					

Note: Above values are initial values.

 $<sup>^{\</sup>star}$  Operating voltage will be, for mounting in the upside down direction, 85% max.

This value is the value in switching frequency 120 operations/min.

<sup>\*2.</sup> If the Au plating layer is destroyed, the number will be the same as the standard type.

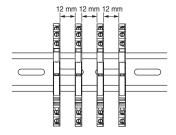
<sup>\*</sup> Value is at ambient temperature of 23°C.

# **Approved standards**

# **UL508** (file No.E41643)

Model	No. of poles	Operation coil ratings	Contact ratings	Operations
G2RV-SR series	SPDT	12 to 48 VDC 24 to 230 VAC	6 A at 250 VAC (Resistive load) 6 A at 30 VDC (Resistive load) 2 A at 400 VAC (Resistive load)*	6,000

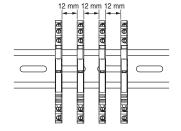
<sup>\*</sup> If the load voltage exceeds 250 VAC, please attach with a spacing of 12 mm min., or use a separate plate (XW5Z-EP12).



# TÜV (EN 61810-1)

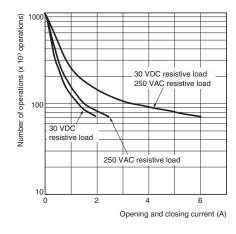
Model	No. of poles	Operation coil ratings	Contact ratings	Operations
G2RV-SR series	SPDT	12, 24 VDC 24, 48 VAC/VDC 100, 110, 200, 230 VAC	6 A at 250 VAC (Resistive load) 6 A at 30 VDC (Resistive load) 2 A at 400 VAC (Resistive load)*	50,000 50,000 6,000

<sup>\*</sup> If the load voltage exceeds 250 VAC, please attach with a spacing of 12 mm min., or use a separate plate (XW5Z-EP12).

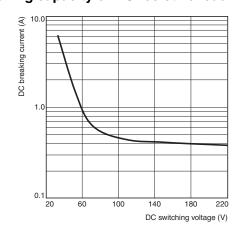


# **Engineering Data**

# Endurance curve (N.O. side)



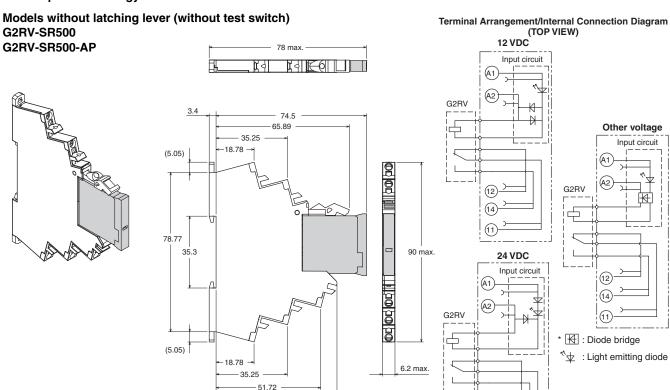
# Switching capacity of DC resistive load



Dimensions (unit: mm)

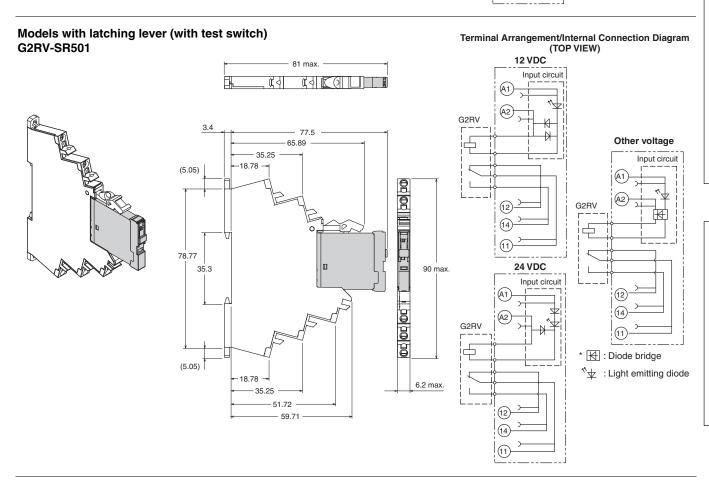
# Slim I/O Relay + socket

Push-in plus technology



(12) (14) (11)

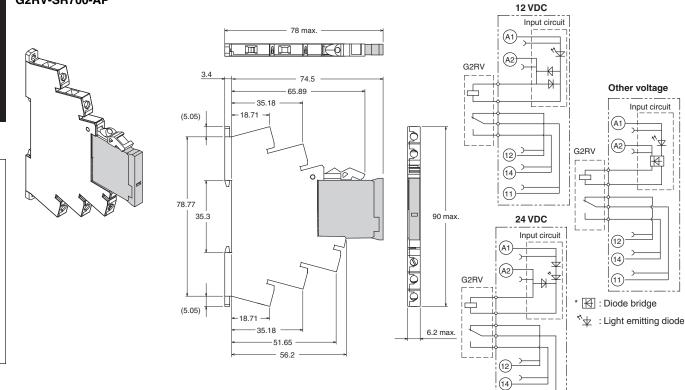
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# Models without latching lever (without test switch) G2RV-SR700 G2RV-SR700-AP

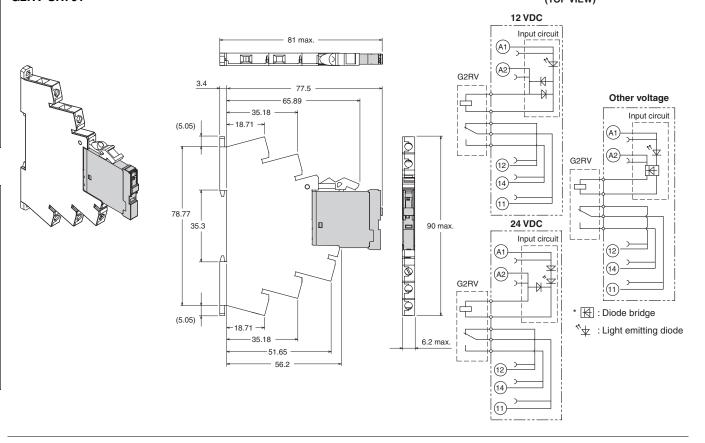




# Models with latching lever (with test switch) G2RV-SR701

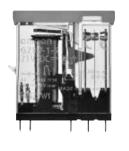
# Terminal Arrangement/Internal Connection Diagram (TOP VIEW)

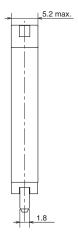
(11)

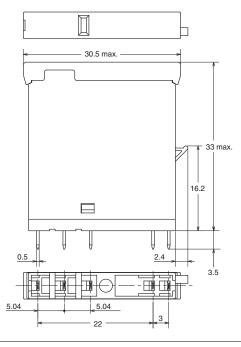


# Relay for maintenance

Models without latching lever G2RV-1-S-G G2RV-1-S-AP-G







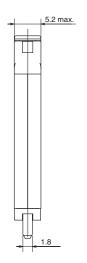
Terminal Arrangement/ Internal Connection Diagram (TOP VIEW)

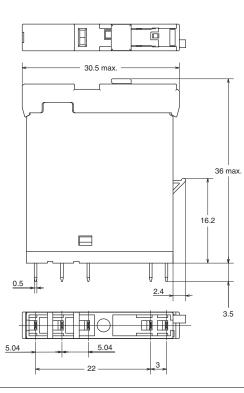
(Input circuit)



# Models with latching lever (test switch) G2RV-1-SI-G

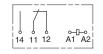






Terminal Arrangement/ Internal Connection Diagram (TOP VIEW)

(Input circuit)



9

# Slim I/O Solid State Relay

# **G3RV-SR**

# Global standard size, low profile type slim I/O solid state relay with width 6.2 mm.

- Realized about 25% lower profile than conventional products, contributing to further miniaturization of the control panel.
- Optimal slim, high frequency, high-speed opening and closing SSR (solid state relay).
- Realized a slim shape with a switching capacity up to 3 A (DC), and 2 A (AC).
- Because MOSFET is used for the outlet element for the DC load, opening and closing load of 100  $\mu A$  to 3 A is possible.
- Check operating status at a glance at the operating display LED.
- Mounted I/O SSR (solid-state relay) uses plug-in terminals that are difficult to bend when exchanging.

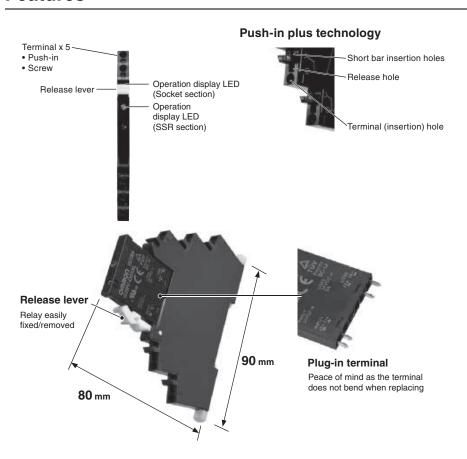


For the recent information on models that have been certified for safety standards, refer to your OMRON website.

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Refer to Safety Precautions on page 20.

# **Features**



# **Model Number Structure**

# **Model Number Legend**

 $\frac{\text{G3RV-SR}}{\text{(1)}} \stackrel{\square}{\text{(2)}} \stackrel{\square}{\text{(3)}} - \stackrel{\square}{\text{(4)}} \stackrel{\square}{\text{(5)}}$ 

## (1) Basic model name

G3RV: Slim I/O Solid State Relay

#### (2) Sub type

SR: Slim solid relay + integrated low profile socket

## (3) Terminal (wire connection)

500: Push-in plus technology 700: Screw technology

# (4) Output voltage specification

A : AC output (triac) zero cross function available AL : AC output (triac) zero cross function not available

D : DC output (MOS FET)

# (5) Rated voltage input

12, 24 VDC 24, 48 VAC/VDC 100, 110, 200, 230 VAC

# **Ordering Information**

Terminal (wire connection)	Applicable output load	Zero cross function	Rated inpu		Model
			DC	12	G3RV-SR500-D DC12
			DC	24	G3RV-SR500-D DC24
			A O /D O	24	G3RV-SR500-D AC/DC24
	501		AC/DC	48	G3RV-SR500-D AC/DC48
	DC load	_		100	G3RV-SR500-D AC100
				110	G3RV-SR500-D AC110
			AC	200	G3RV-SR500-D AC200
				230	G3RV-SR500-D AC230
			50	12	G3RV-SR500-A DC12
			DC	24	G3RV-SR500-A DC24
			10/00	24	G3RV-SR500-A AC/DC24
Push-in plus		.,	AC/DC	48	G3RV-SR500-A AC/DC48
technology		Yes		100	G3RV-SR500-A AC100
				110	G3RV-SR500-A AC110
			AC	200	G3RV-SR500-A AC200
				230	G3RV-SR500-A AC230
	AC load			12	G3RV-SR500-AL DC12
			DC	24	G3RV-SR500-AL DC24
				24	G3RV-SR500-AL AC/DC24
		No	AC/DC	48	G3RV-SR500-AL AC/DC48
				100	G3RV-SR500-AL AC100
			AC	110	G3RV-SR500-AL AC110
				200	G3RV-SR500-AL AC200
				230	G3RV-SR500-AL AC230
			DC AC/DC	12	G3RV-SR700-D DC12
				24	G3RV-SR700-D DC24
				24	G3RV-SR700-D AC/DC24
				48	G3RV-SR700-D AC/DC48
	DC load	_	AC	100	G3RV-SR700-D AC100
				110	G3RV-SR700-D AC110
				200	G3RV-SR700-D AC200
				230	G3RV-SR700-D AC230
			+	12	G3RV-SR700-A DC12
			DC	24	G3RV-SR700-A DC24
			10/20	24	G3RV-SR700-A AC/DC24
0		V	AC/DC	48	G3RV-SR700-A AC/DC48
Screw technology		Yes		100	G3RV-SR700-A AC100
				110	G3RV-SR700-A AC110
			AC	200	G3RV-SR700-A AC200
				230	G3RV-SR700-A AC230
	AC load		20	12	G3RV-SR700-AL DC12
			DC	24	G3RV-SR700-AL DC24
			10/20	24	G3RV-SR700-AL AC/DC24
			AC/DC	48	G3RV-SR700-AL AC/DC48
		No		100	G3RV-SR700-AL AC100
			10	110	G3RV-SR700-AL AC110
			AC	200	G3RV-SR700-AL AC200
				230	G3RV-SR700-AL AC230
Note: Solid wire cannno	t be used for Push-	In Plus terminal	type, make s	ure to use	stranded wire or stranded wire with ferrules

# Solid state relay for maintenance

# **Model Number Legend**

(1) Output voltage specification

(3) Terminal S: Plug-in type

D: DC output 2: AC output

(4) Zero cross functions

Blank: Zero cross function available L: Zero cross function not available

(2) Rated current 02: AC output 2 A 03: DC output 3 A

(5) Rated input voltage Number: 12, 24, 48 VDC



# **List of Models**

Insulation method	Operation Display	Output (SSR)	Zero cross Function	Rated output Load *	Rated input voltage (socket)	Model	Applicable model
					12 VDC	G3RV-202S DC12	G3RV-SR700/500-A DC12V
					24 VDC	G3RV-202S DC24	G3RV-SR700/500-A DC24V
					24 VAC/VDC	G3RV-2025 DC24	G3RV-SR700/500-A AC/DC24V
			Yes		48 VAC/VDC		G3RV-SR700/500-A AC/DC48V
			168		100 VAC		G3RV-SR700/500-A AC100V
					110 VAC	G3RV-202S DC48	G3RV-SR700/500-A AC110V
				2 A	200 VAC		G3RV-SR700/500-A AC200V
Photo-		AC		(at 100 to	230 VAC		G3RV-SR700/500-A AC230V
triac		AC		240	12 VDC	G3RV-202SL DC12	G3RV-SR700/500-AL DC12V
				VAC)	24 VDC	G3RV-202SL DC24	G3RV-SR700/500-AL DC24V
					24 VAC/VDC	G3HV-2023L DC24	G3RV-SR700/500-AL AC/DC24V
	Yes		No		48 VAC/VDC		G3RV-SR700/500-AL AC/DC48V
	(green)				100 VAC		G3RV-SR700/500-AL AC100V
					110 VAC	G3RV-202SL DC48	G3RV-SR700/500-AL AC110V
					200 VAC		G3RV-SR700/500-AL AC200V
					230 VAC		G3RV-SR700/500-AL AC230V
-					12 VDC	G3RV-D03SL DC12	G3RV-SR700/500-D DC12V
					24 VDC	G3RV-D03SL DC24	G3RV-SR700/500-D DC24V
					24 VAC/VDC	G3NV-D033L DC24	G3RV-SR700/500-D AC/DC24V
Photo-	voltage D0	DC		3 A (at 5 to	48 VAC/VDC		G3RV-SR700/500-D AC/DC48V
coupler		DC	_	24 VDC)	100 VAC		G3RV-SR700/500-D AC100V
-					110 VAC	G3RV-D03SL DC48	G3RV-SR700/500-D AC110V
					200 VAC		G3RV-SR700/500-D AC200V
					230 VAC		G3RV-SR700/500-D AC230V

<sup>\*</sup> Different depending on the ambient temperature.

For more details, refer to Load current vs. ambient rated temperature on page 16.

# **Specifications**

# Rating (ambient temperature 25°C)

# Input G3RV-SR700/500-A series

	Rated current					Input voltage
Rated input voltage	Δ	C	DC	Must operate voltage	Must release voltage	Percentage of the
	50 Hz	60 Hz				rated voltage
12 VDC	_	_	15.0 mA	10.8 V max.		
24 VDC	_	_	12.0 mA	21.6 V max.		±10%
24 VAC/VDC	11.3 mA	11.4 mA	11.0 mA	21.6 V max.		
48 VAC/VDC	6.8 mA	6.9 mA	6.0 mA	43.2 V max.	1 V min.	
100 VAC	6.2 mA	6.2 mA	_	90 V max.	I V IIIIII.	
110 VAC	6.2 mA	6.2 mA	_	99 V max.		
200 VAC	3.7 mA	4.4 mA	-	180 V max.		
230 VAC	3.8 mA	4.6 mA	-	207 V max.		

# G3RV-SR700/500-AL series

<b>5</b>	I	Rated curre	ent			Input voltage			
Rated input voltage	-	AC				AC DC	Must operate voltage	Must release voltage	Percentage of the
	50 Hz	60 Hz				rated voltage			
12 VDC	_	_	15.0 mA	10.8 V max.					
24 VDC	_	_	12.0 mA	21.6 V max.					
24 VAC/VDC	11.4 mA	11.5 mA	11.0 mA	21.6 V max.					
48 VAC/VDC	7.7 mA	7.7 mA	6.9 mA	43.2 V max.	1 V min.	±10%			
100 VAC	7.3 mA	7.3 mA	_	90 V max.	I V IIIIII.	±10%			
110 VAC	7.3 mA	7.3 mA	-	99 V max.	1				
200 VAC	3.8 mA	4.6 mA	-	180 V max.					
230 VAC	3.9 mA	4.7 mA	_	207 V max.					

# G3RV-SR700/500-D series

	F	Rated curre	ent			Input voltage
Rated input voltage	•	/C	DC	Must operate voltage	Must release voltage	Percentage of the
	50 Hz	60 Hz				rated voltage
12 VDC	_	_	8.0 mA	10.8 V max.		
24 VDC	_	_	4.6 mA	21.6 V max.		±10%
24 VAC/VDC	5.0 mA	5.1 mA	4.3 mA	21.6 V max.		
48 VAC/VDC	6.8 mA	6.9 mA	6.0 mA	43.2 V max.	1 V min.	
100 VAC	6.2 mA	6.2 mA	_	90 V max.	I V IIIIII.	
110 VAC	6.2 mA	6.2 mA	-	99 V max.		
200 VAC	3.7 mA	4.4 mA	-	180 V max.		
230 VAC	3.9 mA	4.5 mA	_	207 V max.		

# Output

Item	G3RV-SR700/500-A(L)	G3RV-SR700/500-D	
Rated load voltage	100 to 240 VAC (50/60 Hz)	5 to 24 VDC	
Load voltage range	75 to 264 VAC (50/60 Hz)	3 to 26.4 VDC	
Load current	0.1 to 2 A (Ambient temperature=25°C)	100 μA to 3 A (Ambient temperature=25°C)	
Inrush current resistance	30 A (60 Hz, 1 cycle)	30 A (60 Hz, 1 cycle)	
Permissible I <sup>2</sup> t; Joule integral value (reference value)	15A <sup>2</sup> s	9 A <sup>2</sup> s	
Applied load capacity	400 W (Output voltage: 200 VAC)	72 W (Output voltage: 24 VDC)	

# **Characteristics**

Item	G3RV-SR700/500-A	G3RV-SR700/500-AL	G3RV-SR700/500-D			
Operate time	1/2 cycle of load power supply +1 ms max.	3 ms max.	6 ms max.			
Release time	60 ms max.	60 ms max.	60 ms max.			
Output ON voltage drop	1.6 V (RMS) max.					
Output ON resistance		-	0.3 Ω max. (at 24 VDC)			
Leaked current	5 mA max. (at 200 VAC, 50/60 H	z)	10 μA max. (at 24 VDC)			
Insulation resistance	100 MΩ min. (at 500 VDC)					
Dielectric strength	Between input and output 2,500 \	/AC 50/60 Hz 1 min				
Vibration resistance	Malfunction: 10 to 55 to 10 Hz do	uble amplitude 0.70 mm				
Shock resistance	300m/s <sup>2</sup>					
Ambient operating temperature	Storage: -30 to +100°C (with no icing or no condensation) Operating: -30 to +55°C (with no icing or no condensation)					
Ambient operating humidity	45 to 85% RH					
Weight	Approx. 38 g					
Pollution degree	2					
The degree of protection by IEC60529	IP20					
Rated impulse dielectric strength	4.0 kV/III					
Load category	LC-A DC-12					
Overload current profile	1.5le 1.1Ue 5s ON, 10s OFF, 10 cycles					
Rated insulation voltage	240 V					

# **Approved standards**

# UL 508 (file No.E64562)

Model	Input ratings	Contact ratings
G3RV-SR700/500-D series	12, 24 VDC 24, 48 VAC/VDC 100, 110, 200, 230 VAC	24 VDC 3 A (resistive load) at 25°C
G3RV-SR700/500-A(L) series	12, 24 VDC 24, 48 VAC/DC 100, 110, 200, 230 VAC	240 VAC 2 A (resistive load) at 25°C

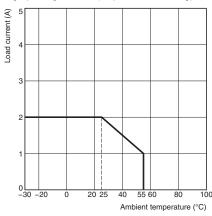
# TÜV(EN 62314)

Model Input ratings		Contact ratings
G3RV-SR700/500-D series	12, 24 VDC 24, 48 VAC/VDC 100, 110, 200, 230 VAC	24 VDC 3 A (resistive load)
G3RV-SR700/500-A(L) series	12, 24 VDC 24, 48 VAC/VDC 100, 110, 200, 230 VAC	240 VAC 2 A (resistive load)

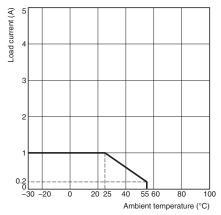
# **Engineering Data**

# Load current vs. ambient rated temperature G3RV-SR700/500-A(L) series

Product mounting spacing 10 mm (Separate Mounting)

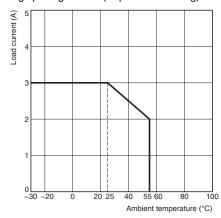


# Close mounting (up to 5 units \*)

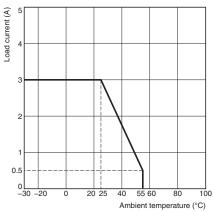


## G3RV-SR700/500-D series

Product mounting spacing 10 mm (Separate Mounting)



## Close mounting (up to 5 units \*)



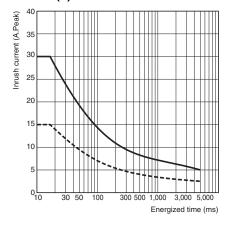
 When five or more are installed, install with 10 mm space between each.

For details, please refer to Mounting on page 23.

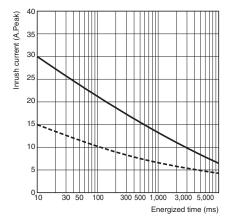
## **Inrush Current Resistance: Non-repetitive**

Keep the inrush current to below the inrush current resistance value (i.e., below the broken line) if it occurs repetitively.

## G3RV-SR700/500-A(L) series

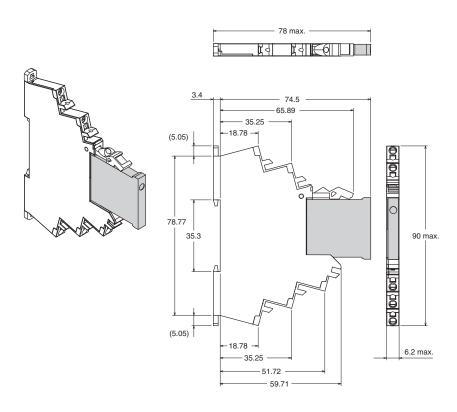


#### G3RV-SR700/500-D series



Dimensions (unit: mm)

Solid state relay + socket Push-in plus technology G3RV-SR500



#### Terminal Arrangement/ Internal Connection Diagram (TOP VIEW)

# 12 VDC Input circuit A1 A2 THE PROPERTY OF THE PROPERTY OF

The information in parentheses in for a DC output.

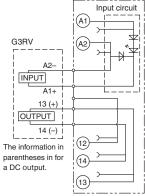
G3RV

INPUT

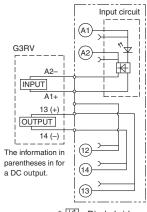
OUTPUT

13 (+)

# 24 VDC



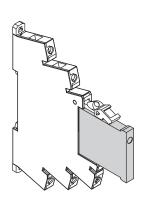
# Other voltage

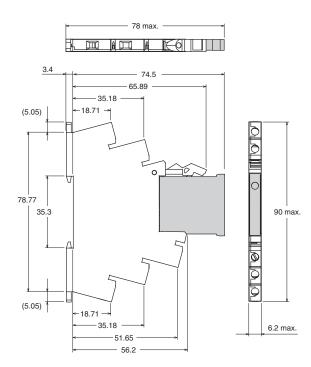


\* 🖽 : Diode bridge

 $^{\ \ }\psi$  : Light emitting diode

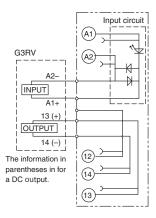
# Screw technology G3RV-SR700



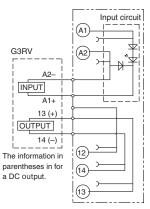


#### Terminal Arrangement/ Internal Connection Diagram (TOP VIEW)

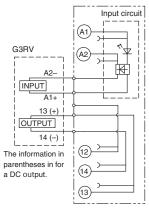
## 12 VDC



# 24 VDC



# Other voltage



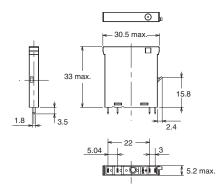
\* H : Diode bridge

\*\dagger : Light emitting diode

# Solid state relay for maintenance

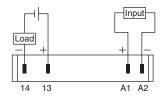
G3RV-D03SL G3RV-202S(L)



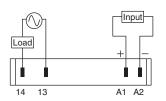


#### Terminal Arrangement/ Internal Connection Diagram (TOP VIEW)

#### G3RV-D03SL (input circuit)



G3RV-202S(L) (input circuit)

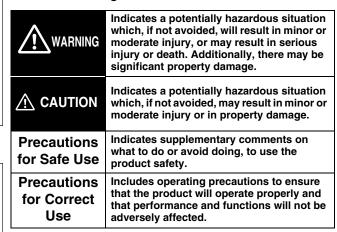


# G2RV-SR/G3RV-SR

# **Safety Precautions**

Be sure to read the *Safety Precautions for All Relays* in the website at the following URL: http://www.ia.omron.com/.

**Format of Warning Indications** 



#### Meaning of Graphic Symbols for Ensuring Product Safety



Indicates the possibility of electric shock under specific conditions.



Used for general CAUTION, WARNING, or DANGER precautions for which there is no specified symbol. (This symbol is also used as the alerting symbol, but shall not be used in this meaning on the product.)



Indicates the possibility of explosion or rupture under specific conditions.



Indicates the possibility of injuries by high temperature under specific conditions.

# **. ∴** WARNING

Ensure that the socket is not charged during wiring and maintenance. Not doing so may result in electric shock.



Do not touch the terminal section of the G2RV-SR or the surrounding area while the power is being supplied. Doing so may result in electric shock.



# CAUTION

Minor electrical shock may occasionally occur.

Do not touch the G3RV terminal section (i.e., current carrying parts) while the power is being supplied.



The G3RV may rupture if short-circuit current flows. As protection against accidents due to short-circuiting, be sure to install protective devices, such as fuses and no-fuse breakers, on the power supply side.



Minor electrical shock may occasionally occur. Do not touch the main circuit terminals on the G3RV immediately after the power supply has been turned OFF.



Shock may result due to the electrical charge stored in the built-in snubber circuit.

Note: G3RV-202S(L), G3RV-SR500/700-A(L) series models only

Minor burns may occasionally occur.

Do not touch the G3RV or the heat sink while the power is being supplied or immediately after the power supply has been turned OFF.

The G3RV becomes extremely hot.



Provide a space of at least 3 mm between the G2RV-SR and ground. Not doing so may result in a ground fault.



#### **Precautions for Safe Use**

#### **Transport**

- Do not use the product if it has been dropped on the ground.
   Dropping the product may adversely affect performance.
- Do not drop the product or subject it to abnormal vibration or shock during transportation or mounting. Doing so may result in deterioration of performance, malfunction, or failure.
- Do not transport the product without it being packaged. Doing so may result in damage, malfunction, or failure.
- Do not transport the G3RV under the following conditions. Doing so may result in damage, malfunction, or deterioration of performance characteristics.
  - · High temperature, high humidity conditions
  - Conditions such as temperature change that causes rapid condensation
  - · Condition where it is not packaged

# **Operating and Storage Environments**

- Do not use or store the product in the following locations. Doing so may result in damage, malfunction, or deterioration of performance characteristics.
  - Do not store in locations subject to ambient storage temperatures outside the range –40 to 70°C (for G2RV) and outside the range –30 to 100°C (for G3RV).
  - Locations subject to relative humidity outside the range 5% to 85% (for G2RV) and outside the range 45% to 85% (for G3RV).
  - Locations subject to high temperature or high humidity.
  - Conditions such as temperature change that causes rapid condensation
  - Locations where corrosive gases or flammable gases are present
  - Location where rainwater or water droplets gets splashed
  - · Location with splashes of water, oil, and chemicals, etc.
  - · Locations with much dust, salt, and iron powder
  - · Location with blockers
  - · Where static electricity or noise occurs
  - Where strong electromagnetic field is generated
  - · Where there is a risk of exposure to radioactivity
- Do not use or store Sockets in environments that contain silicone gas, sulfidizing gas (e.g., SO<sub>2</sub> or H<sub>2</sub>S), or organic gas, or near materials that contain silicone. Doing so may cause the contacts to be unstable or to fail.

# Handling <G3RV>

Keep the G3RV well ventilated.
 There is a risk of short-circuiting or burning due to G3RV overheating.

#### Mounting

- Before you start wiring, please make sure that the socket is securely attached to the mounting rail. If the socket is unstable, it may come loose and risk of injury towards the workers.
- Please insert the flat-blade screwdriver to the bottom of the hole. If you do not insert the flat-blade screwdriver correctly, the cable will not be connected correctly.
- When lubricant such as oil is attached to the tip of the driver, the driver will fall off, with a risk of injury towards the workers.

## **Usage**

- Please select the load within the rated range. Doing so may result in damage, malfunction, or failure.
- Please use the power of the rated frequency. It may cause malfunction, failure, or risk of burnout.

#### <G3RV>

- Install G3RV according to instructions Mounting on page 23. If you
  install in the wrong direction, abnormal heat is generated, and may
  lead to short-circuiting or burning the output element.
- G3RV is an SSR that generates heat. Please observe the ambient temperature setting range of G3RV. If installing in an enclosed space, set a fan, and ventilate.
- When mounting G3RV to DIN rail, firmly fits into the groove. If it is not properly installed, there is a risk of it falling.

### Wiring

- For the current to be applied, make sure a wire size with margin is used.
   Otherwise, excessive heat generated by the wires may cause burning.
- Do not attempt to use the wire if the coat is torn. Not doing so may result in electric shock.
- Always turn OFF the power supply before performing wiring. Not doing so may cause electrical shock.

## <G3RV>

 The wires of the socket for G3RV socket should not be passed through the same duct as that being connected to the high-voltage power supply. Otherwise, inductive noise may damage the G3RV or cause it to malfunction.

#### Push-in plus technology

- Do not wire anything to the release holes.
- Do not tilt or twist a flat-blade screwdriver while it is inserted into a release hole on the terminal. The terminal may be damaged.
- Insert a flat-blade screwdriver into the release holes at an angle.
   The terminal may be damaged if you insert the screwdriver straight in.
- Do not allow the flat-blade screwdriver to fall out while it is inserted into a release hole.
- Do not bend the wire past its natural bending radius or pull on it with excessive force. Doing so may cause the wire disconnection.
- Do not insert more than one wire into each terminal (insertion) hole.
- To prevent wiring materials from smoking or ignition, use the wiring materials given in the following table.

	Stripping length		
Recommended Wire	Ferrules When using terminal	Ferrules When not using terminal	
0.5 to 1.5 mm <sup>2</sup> /AWG20 to AWG16	10 mm	8 mm	

Note: Use Ferrules with UL certification (R/C).

#### Disposal

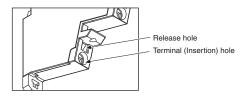
• When disposing of the product, do not put into the fire.

#### **Precautions for Correct Use**

- Do not use or store the product in the following locations. Doing so may result in damage, malfunction, or deterioration of performance characteristics.
  - Where vibration or shock is directly transmitted to the body
  - Do not use the product where the socket could touch a solvent or alkaline agent.
- Do not insert short bar in the hole for wire or screw driver, it may cause the result of failure of pull out.
  - If insert short bar in the hole for wire or screw driver and try to pull out, it may cause damage for short bar or socket.

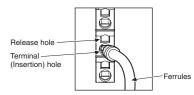
# Push-in plus technology

### 1. Connecting Wires to the Push-in plus technology Part Names of the Terminal



#### **Connecting Wires with Ferrules**

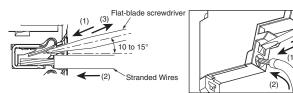
Insert the ferrule straight into the terminal until the end strikes the terminal.



#### **Connecting Stranded Wires**

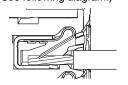
Use the following procedure to connect the wires to the terminal.

- (1) Hold a flat-blade screwdriver at an angle and insert it into the release hole.
  - The angle should be between 10°and15°. If the flat-blade screwdriver is inserted correctly, you will feel the spring in the release hole respond.
- (2) With the flat-blade screwdriver still inserted into the release hole, insert the wire into the terminal hole until it strikes the terminal.
- (3) Remove the flat-blade screwdriver from the release hole.



# **Checking Connections**

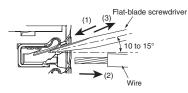
- After insertion, pull gently on the wire to make sure that it will not come out (i.e., to confirm that it is held by the terminal).
- To prevent short circuits, insert the stripped part of a stranded or the conductive part of a ferrule until it is hidden inside the terminal insertion hole. (See following diagram.)

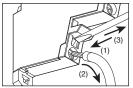


#### 2. Removing Wires from the Terminal

Use the following procedure to remove wires from the terminal. The same method is used to remove stranded wires and ferrules.

- (1) Hold a flat-blade screwdriver at an angle and insert it into the release hole.
- (2) With the flat-blade screwdriver still inserted into the release hole, remove the wire from the terminal insertion hole.
- (3) Remove the flat-blade screwdriver from the release hole.

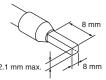




# 3. Recommended ferrules and tools Recommended ferrules

Applicable wire		Ferrules Conduct	Rec	commended ferrules		
(mm²)	(AWG)	length	Phoenix Contact product	Weidmuller product	Wago product	
0.5	20	8	AI0.5-8	H0.5/14	FE-0.5-8N-WH	
0.75	18	8	AI0.75-8	H0.75/14	FE-0.75-8N-GY	
1	18	8	AI1-8	H1.0/14	FE-1.0-8N-RD	
1.5	16	8	Al1.5-8	H1.5/14	FE-1.5-8N-BK	
Recommended crimp tool		CRIMPFOX6 CRIMPFOX6T-F CRIMPFOX10S	PZ6 roto	Variocrimp4		

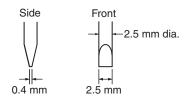
- \*1. Make sure that the outer diameter of the wire is smaller than the inner diameter of the insulating sleeve of the recommended ferrule.
- \*2. Make sure that the ferrule processing dimensions conform to the following figure.



#### **Recommended Flat-blade Screwdriver**

Use a flat-blade screwdriver to connect and remove wires. Use the following flat-blade screwdriver.

The following table is the manufacturer and format at the time in December 2015.



Model	Manufacturer
XW4Z-00B	Omron
ESD 0.40×2.5	Wera
SZF 0.4×2.5	Phoenix Contact
0.4×2.5×75 302	Wiha
AEF.2.5×75	Facom
210-719	Wago*1
SDI 0.4×2.5×75	Weidmuller*1
98 20 25	KNIPEX*1

<sup>\*1.</sup> Insulated types of Flat-blade Screw driver, strongly recommended to prevent from an electric shock.

#### **Screw Terminal**

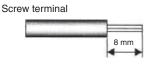
#### Screw terminal

Wired type	Applicable wire size	Stripping length
Stranded wires, without ferrule	0.5 to 1.5 mm <sup>2</sup>	8 mm
Stranded wires, with ferrule and plastic collar	0.5 to 1.5 mm <sup>2</sup>	8 mm
Stranded wires with ferrule, without plastic collar	0.5 to 1.5 mm <sup>2</sup>	8 mm
Single wire	0.5 to 1.5 mm <sup>2</sup>	8 mm

# • Tightening Torque 0.4 N • m

### • Electric wiring

Use the electric wire of specified size as shown above. The length of the that is not covered is 8 mm.



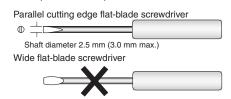
Stripping length

# <G2RV>

Operating latching lever (test switch)
When operating the latching lever for G2RV-SR701/501
series, use a 2.5 mm width flat-blade screwdriver.

### • Applicable flat-blade screwdriver

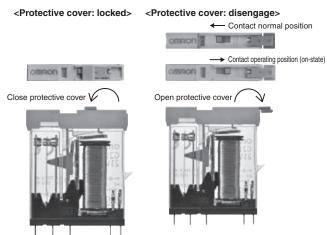
Flat-blade screwdriver with parallel cutting edge: shaft diameter 2.5 mm (3.0 mm max.)



Driver with a thick shaft cannot be used.

- Always turn OFF the power supply before operating latching lever.
- Return to its original state after using the latching lever.
- Do not use the latching lever as a switch.
- Operation durability of the latching lever is 100 times or more.
- Do not keep the latching lever ON for a long period of time (24 hours or more) in order to maintain the operation check function.

# Method of operation of the latching lever (test switch)



Keep the protective cover open when using the latching lever. Move until the latching lever clicks to the ON position (ON state). After use latching lever, in order to prevent malfunction, return the switch to contact normal position (OFF state), and make sure the protective cover is firmly closed.

#### Using the latching lever

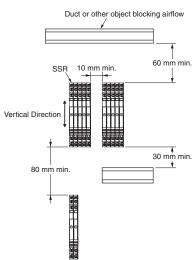
Example: check the operation of the relay and the sequence circuit

#### <G3RV>

- Since the G3RV uses electronic components, do not allow it to fall, vibrate, or apply shock that exceeds the criteria. Doing so may result in failure, malfunction, or deterioration of performance.
- Tighten screw terminal for G3RV at torque 0.4 N · m. It may cause short-circuit failure or burning.
- Please use the voltage and current suitable for the input and output terminal portion of G3RV. It may cause short-circuit failure or burning.

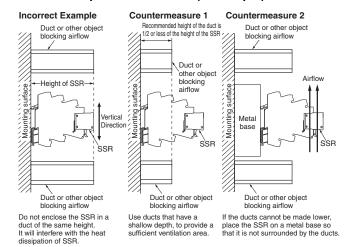
#### Mounting

## <The SSR Mounting Pitch (Panel Mounting)>

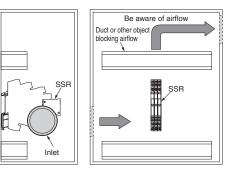


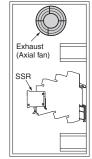
\* When five or more are installed, install with 10 mm space between each.

#### <Relationship of SSR and duct (duct depth)>



#### <Ventilation Outside the Control Panel>





- If the air inlet or air outlet has a filter, clean the filter regularly to prevent it from clogging to ensure an efficient flow of air.
- Do not place objects that may obstruct the proper ventilation for outside or inside the inlet or exhaust port, and in the outside vicinity.
- A heat exchanger, if used, should be located in front of the G3RV to ensure the efficiency of the heat exchanger.
- Please observe the ambient temperature of G3RV. The rated current of the G3RV is measured at an ambient temperature of 25°C.
- The G3RV uses a semiconductor in the output element.
   This causes the temperature inside the control panel to increase due to heating resulting from the flow of electrical current through the load. The G3RV reliability can be increased by adding a ventilation fan to the control panel to dispel this heat, thus lowering the ambient temperature of the G3RV.

(It suggests that life expectancy is doubled by each 10°C reduction in ambient temperature.)

#### **EMI**

The G3RV is a Class A product (for industrial environments). When used in a residential environment, it may cause radio interference. In such case, the user may be required to take appropriate measures.

# For G2RV-SR/G3VR-SR **Common Accessories (order separately)**

# **Ordering Information**

# **Short Bars**

Appearance	Pitch	No. of poles	Colors	Model *	Minimum order (Quantity)	Maximum energizing current
		2		PYDN-6.2-020□		
<del></del>	6.2 mm 4 10	3	Red (R), Blue (S),	PYDN-6.2-030□	10	32 A
		4		PYDN-6.2-040□		
		10 Yello	Yellow (Y)	PYDN-6.2-100□		
		20		PYDN-6.2-200□		

# Label

Appearance Model		Minimum order (Sheet) (Pieces per sheet)
	XW5Z-P2.5LB2	5 (1 sheet/72 pieces)

# **Separate Plate**

Appearance	Model
	XW5Z-EP12

# **PLC** interface unit

Appearance	I/O classification	Connection method	Common process	Applicable Models *	Model
		PNP	00DV 0D500 AD	P2RVC-8-I-5-1	
	For input	Push-In	NPN	G2RV-SR500-AP	P2RVC-8-I-5
		Screw	PNP	G2RV-SR700-AP	P2RVC-8-I-7-1
		Push-In	PNP	G2RV-SR500 G2RV-SR501	P2RVC-8-O-5-1
	For output		rusii-iii	NPN	G3RV-SR500
	For output	Screw	PNP	G2RV-SR700 G2RV-SR701 G3RV-SR700	P2RVC-8-0-7-1

<sup>\*</sup> Please make sure applicable models, P2RVC can not be used other combination than the above table.

# **Parts for DIN Track Mounting**

Appearance	Туре		Model	Minimum order (Quantity)	
	DIN Tracks	1 m	PFP-100N		
		0.5 m	PFP-50N	_	
3	End Plate *		PFP-M		
	Spacer		PFP-S	10	

<sup>\*</sup> When mounting DIN Track, please use End Plate (PFP-M). Refer to your OMRON website for details on PFP-□.

Note: Use for wiring to the adjacent socket.

\* Replace the box (□) in the model number with the code for the covering color. □ color selection: R = red, S = blue, Y = yellow

# **Applicable Cables**

Name		Appearance	Cable length L (mm)	Connecting Cables	Applicable Connectors
	8 I/O points	End A End B Device end PLC interface unit end	1,000	P2RV-A100C	
Cables with Loose			2,000	P2RV-A200C	1
Wires P2RV-A□C			3,000	P2RV-A300C	Various devices
		70 L	5,000	P2RV-A500C	
			1,000	P2RV-4-100C	
Cables with Connectors (1:4)	32 output		2,000	P2RV-4-200C	PLC I/O Units with MIL connectors (1:4)
P2RV-4-□C	points		3,000	P2RV-4-300C	CJ1W-OD232/OD262, etc.
		300 -	5,000	P2RV-4-500C	
	32 input points		1,000	P2RV-4-100IMC	
Cables with Connectors (1:4)		- L 300 -	2,000	P2RV-4-200IMC	PLC I/O Units with MIL connectors (1:4) CJ1W-ID232/ID262, etc.
P2RV-4-□IMC			3,000	P2RV-4-300IMC	
			5,000	P2RV-4-500IMC	
	32 input points		1,000	P2RV-4-100IFC	
Cables with Connectors (1:4)			2,000	P2RV-4-200IFC	PLC I/O Units with Fujitsu connectors (1:4)
P2RV-4-□IFC			3,000	P2RV-4-300IFC	CJ1W-ID231/ID261, etc.
			5,000	P2RV-4-500IFC	
	8 output points 8 input		500	P2RV-A050C-OMR GRT1	
Cables with Connectors (1:1)			1,000	P2RV-A100C-OMR GRT1	Slice I/O Units (1:1) For inputs: GRT1-ID8-1
P2RV-A□C-OMR GRT1			500	P2RV-A050IC-OMR GRT1	For outputs: GRT1-OD8-1
	points	L	1,000	P2RV-A100IC-OMR GRT1	
Cables with	8 output points		500	P2RV-A050C-OMR NX	DI C I/O I Inite with MIL accordance (4.4)
Cables with Connectors (1:1)			1,000	P2RV-A100C-OMR NX	PLC I/O Units with MIL connectors (1:1) For inputs: NX-ID4442
P2RV-A□C-OMR NX	8 input		500	P2RV-A050IC-OMR NX	For outputs: NX-OD4256
	points	+ L →	1,000	P2RV-A100IC-OMR NX	1

Name		Appearance	Cable length L (mm)	Connecting Cables	Applicable Connectors
			500	P2RV-050C-SCH-A	
		End A End B	1,000	P2RV-100C-SCH-A	
	32 input	Device PLC interface end unit end	2,000	P2RV-200C-SCH-A	
	points		3,000	P2RV-300C-SCH-A	1
			5,000	P2RV-500C-SCH-A	Schneider Electric PLCs with 32-point connectors (1:4)
			500	P2RV-050C-SCH-B	For inputs: 140 DDI 353 00
	32 output		1,000	P2RV-100C-SCH-B	For outputs: 140 DDO 353 00
			2,000	P2RV-200C-SCH-B	
O alamatalam Elamatalam	points		3,000	P2RV-300C-SCH-B	
Schneider Electric PLC Connecting		- L → - 300 →	5,000	P2RV-500C-SCH-B	
Cables			500	P2RV-050C-SCH-C	
P2RV-□C-SCH-□			1,000	P2RV-100C-SCH-C	
	16 input points		2,000	P2RV-200C-SCH-C	
	points		3,000	P2RV-300C-SCH-C	Och meiden Electric BLOs with
			5,000	P2RV-500C-SCH-C	Schneider Electric PLCs with 16-point connectors (1:2)
			500	P2RV-050C-SCH-D	For inputs: BMX DDI 1602
		- L - 300 -	1,000	P2RV-100C-SCH-D	For outputs: BMX DDO 1602
	16 output points		2,000	P2RV-200C-SCH-D	
			3,000	P2RV-300C-SCH-D	
			5,000	P2RV-500C-SCH-D	
			500	P2RV-050C-SIM-A	
			1,000	P2RV-100C-SIM-A	
	32 input points		2,000	P2RV-200C-SIM-A	_
			3,000	P2RV-300C-SIM-A	Siemens PLCs with
			5,000	P2RV-500C-SIM-A	32-point connectors (1:4)
			500	P2RV-050C-SIM-B	For inputs: 6ES7 321-1BL00-0AA0 For outputs: 6ES7 322-1BL00-0AA0
	00 1		1,000	P2RV-100C-SIM-B	1 of outputs. 0207 022 15200 07A0
	32 output points		2,000	P2RV-200C-SIM-B	
	ľ	<del> </del>	3,000	P2RV-300C-SIM-B	
			5,000	P2RV-500C-SIM-B	
			500	P2RV-050C-SIM-C	
Siemens PLC			1,000	P2RV-100C-SIM-C	Siemens PLCs with
Connecting Cables P2RV-□C-SIM-□	16 input points		2,000	P2RV-200C-SIM-C	16-point connectors (1:2) For inputs: 6ES7 321-1BH02-0AA0
1 ZITV LO GIWIL			3,000	P2RV-300C-SIM-C	
			5,000	P2RV-500C-SIM-C	
			500	P2RV-050C-SIM-D	
	20 inn: +		1,000	P2RV-100C-SIM-D	
	32 input points		2,000	P2RV-200C-SIM-D	
			3,000	P2RV-300C-SIM-D	Siemens PLCs with
			5,000	P2RV-500C-SIM-D	32-point connectors (1:4)
	32 output points		500	P2RV-050C-SIM-E	For inputs: 6ES7 421-1BL-0AA0 For outputs: 6ES7 422-1BL-0AA0
			1,000	P2RV-100C-SIM-E	. 5. 53.04.6. 5267 122 152 07010
			2,000	P2RV-200C-SIM-E	
		← L →   ← 300 →	3,000	P2RV-300C-SIM-E	
			5,000	P2RV-500C-SIM-E	

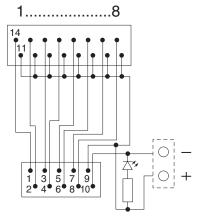
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# Ratings / characteristices

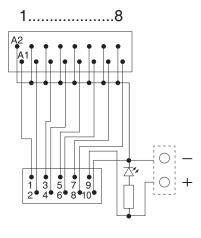
Rated voltage	30 VAC/DC		
Rated current	0.5 A/poles, 2 A/unit		
Ambient operating temperature	–40 to 55°C		

# **Electrical schematic**

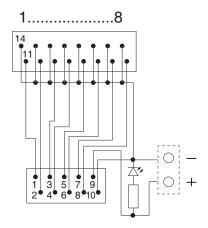
Input P2RVC-8-I-□-1 (PNP)



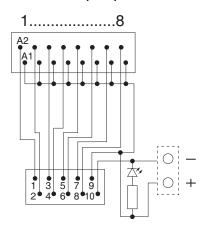
# Output P2RVC-8-O-□-1 (PNP)



# P2RVC-8-I-5 (NPN)

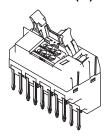


# P2RVC-8-O-5 (NPN)

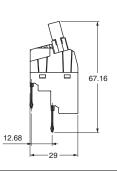


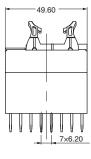
# **PLC** interface unit

Push-IN P2RVC-8-I-5(-1) P2RVC-8-O-5(-1)

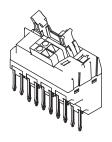




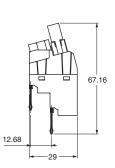


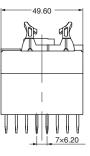


Screw P2RVC-8-I-7-1 P2RVC-8-O-7-1







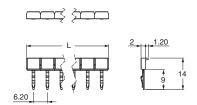


# (Except for PLC interface unit) **Common Accessories**

**Dimensions** (unit: mm)

# **Short Bars**

PYDN-6.2-□□ (6.2 mm)

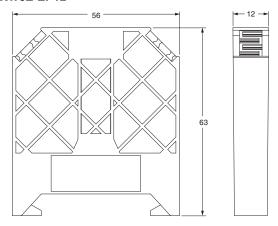


Pitch	No. of poles	L (Length)	Colors	Model *	Maximum carry current
	2	12.4	PYDN-6.2-020	020□	
	3	18.6		PYDN-6.2-030□	
6.2 mm	4	24.8		PYDN-6.2-040□	32 A
	10	62		PYDN-6.2-100□	
	20	124		PYDN-6.2-200□	

**Note:** Use the Short Bars for crossover wiring within one Socket or between Sockets. 

\* Replace the box (□) in the model number with the code for the covering color.

# **Separate Plate** XW5Z-EP12



# **Parts for DIN Track Mounting**

Refer to your OMRON website for details on the PFP-.

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