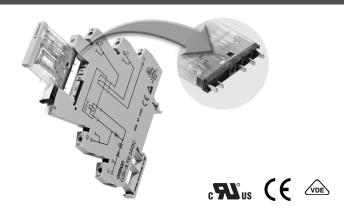
# Slim Relay G2RV

### **Industrial Slim Relay Rated at 6 Amps**

- Large plug-in terminals for reliable connection.
- LED indicator, clear case, and mechanical flag allows easy and immediate visual operation verification.
- Has a maximum switching voltage of 440 VAC.
- Slim outline to save space in high volume rack and PLC applications.
- Low power consumption for system energy savings.



# **Model Number Structure**

# **■** Model Number Legend

1. Auxiliary Type Designation

SL: Slim relay and socket combination

- 2. Wire Connection
  - 7: Screw terminals
  - 5: Push-in terminals

3. Relay LED

0: Without LED

- 4. Relay Pushbutton
  - 0: Without pushbutton
- 5. Input Voltage

(Complete part numbers listed in the Relay and Socket Combinations Chart below)

Note: LED indicator standard feature on Socket.

# **Ordering Information**

### **■** List of Models

Classification		Enclosure rating	Input voltage	Type of connection	Contact form SPDT
Plug-in terminals	General-purpose	Unsealed	AC/DC	Screw terminals	G2RV-SL700
				Push-in terminals	G2RV-SL500

# ■ Relay and Socket Combinations

Input voltage	Screw terminals	Push-in terminals
12 VDC	G2RV-SL700-DC12(DC11)	G2RV-SL500-DC12(DC11)
24 VDC	G2RV-SL700-DC24(DC21)	G2RV-SL500-DC24(DC21)
24 VAC/DC	G2RV-SL700-AC/DC24	G2RV-SL500-AC/DC24
48 VAC/DC	G2RV-SL700-AC/DC48	G2RV-SL500-AC/DC48
110 VAC	G2RV-SL700-AC110	G2RV-SL500-AC110
230 VAC	G2RV-SI 700-AC230	G2RV-SI 500-AC230



**Note:** Relay and Socket Combinations are <sub>c</sub>UL<sub>us</sub> listed.

# **Specifications**

# ■ Coil Ratings @ 23°C

Rated voltage	Rated current		Operate voltage	Release voltage	Power co	nsumption	Input voltage	
		AC	DC	% of rate	ed voltage	AC (VA)	DC (mW)	% of rated
	50 Hz	60 Hz				Approx.	Approx.	voltage
12 VDC			27.2	80% max.	10% min.		300 mW	±10%
24 VDC			13.3				300 mW	]
24 VAC/DC	21.1	22.5	13.0			0.5 VA	300 mW	]
48 VAC/DC	8.5	9.0	5.2			0.4 VA	250 mW	]
110 VAC	7.1	7.5				0.8 VA		]
230 VAC	7.3	7.9				1.7 VA		]

# **■** Contact Ratings

Number of poles	1 pole		
Load	Resistive load (cos φ = 1)	Inductive load ( $\cos \phi = 0.4$ , L/R = 7 ms)	
Rated load	2A at 400 VAC; 6 A at 250 VAC; 6 A at 30 VDC	2 A at 250 VAC; 2 A at 30 VDC	
Rated carry current	6 A		
Max. switching voltage	440 VAC, 125 VDC	440 VAC, 125 VDC	
Max. switching current	6 A		
Max. switching power	1,500 VA 180 W	500 VA 60 W	
Minimum permissible load	10 mA at 5 VDC : P level: $\lambda_{60}$ =	10 mA at 5 VDC : P level: λ <sub>60</sub> = 0.1 x 10 <sup>-6</sup> /operation	

### **■** Characteristics

Item	1 pole
Contact resistance	100 m $\Omega$ max.
Operate (set) time	20 ms max.
Release time	40 ms max.
Max. operating frequency	Mechanical: 18,000 operations/hr
	Electrical: 1,800 operations/hr (under rated load)
Insulation resistance	1,000 M $\Omega$ min. (at 500 VDC)
Dielectric strength	4,000 VAC, 50/60 Hz for 1 min between coil and contacts
	1,000 VAC, 50/60 Hz for 1 min between contacts of same polarity
Vibration resistance	Destruction: 10 to 55 Hz, 1.0 mm double amplitude
	Malfunction: 10 to 55 Hz, 1.0 mm double amplitude
Shock resistance	Destruction: 1,000 m/s <sup>2</sup> (approx. 100G)
	Malfunction: 100 m/s <sup>2</sup> (approx. 10G)
Life expectancy	Mechanical: 5,000,000 operations min.
	Electrical: 100,000 typical;
	NO 70,000 operations min.;
Ambient temperature	NC 50,000 operations min.
Ambient temperature	Operating: -40°C to 55°C (with no icing or condensation)
Ambient humidity	Operating: 5% to 85%
Weight	Approx. 35 g
Overvoltage category	III
Pollution degree	2

Note: Data shown are of initial values.

### **Switching Timing**

Model number	Operating time (typical)	Release time (typical
G2RV-SL7□□/5□□ DC12	5 ~ 7 ms	5 ~ 8 ms
G2RV-SL7□□/5□□ DC24	5 ~ 7 ms	5 ~ 8 ms
G2RV-SL7□□/5□□ AC/DC24	5 ~ 7 ms	17 ~ 22ms
G2RV-SL7□□/5□□ AC/DC48	5 ~ 7 ms	22 ~ 30 ms
G2RV-SL7□□/5□□ AC110	12 ~ 15 ms	22 ~ 30 ms
G2RV-SL7□□/5□□ AC230	12 ~ 15 ms	22 ~ 30 ms

# **■** Approved Standards

# UL Recognized (File No. E41643) - - Ambient Temp. = 40°C

Model	Contact form	Coil ratings	Contact ratings	Operations
G2RV-SL Series		12 to 48 VDC 24 to 230 VAC	250 VAC 6 A (Resistive Load) 30 VDC 6 A (Resistive Load) 400 VAC 2 A (Resistive Load)	6,000

# **IEC/VDE (EN 61810)**

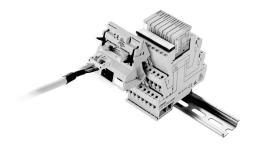
Contact form	Coil ratings	Contact ratings	Operations
1 pole	, -	( )	50,000
	24, 48 VAC/DC	30 VDC 6 A (Res.)	50,000
	110, 230 VAC	400 VAC 2 A (Res.)	6,000

# **Accessories**

# ■ PLC Interface (for G2RV-SL700 series only)

### **List of Models**

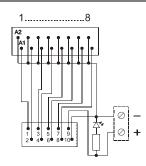
Model number	Description	Connection
P2RVC-8-O-F	For output use	Flat cable



# **Specifications**

Input	Rated voltage	30 VAC/VDC max.
	Current capacity	0.5 A per channel
		2.0 A total current, power supply terminal
Characteristics	Ambient temperature	Operating: 0 to 55°C Storage: –20 to 85°C
	Overvoltage category	III
	Pollution degree	2

### **Electrical schematic P2RVC-8-O-F**



### ■ Cables for PLC Interface P2RVC-8-O-F

### P2RV-4-□□□C

Cable to connect CJ1 to 4 x P2RVC-8-O-F

### **List of Models**

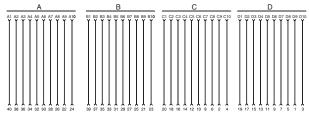
Model number	Cable length
P2RV-4-100C	1.0 m
P2RV-4-200C	2.0 m
P2RV-4-300C	3.0 m
P2RV-4-500C	5.0 m

40 pole IDC mounting to Omron PLC CJ1-OD232

Cable length as indictad



### 4x10 pole IDC mounting to 4 x P2RVC-8-O-F



Split into 4 sections
Length = 30 cm

### **Technical data**

Control line	AWG26/0.14 mm², tin-plated copper
Diameter cable	10.6 mm (one end splits into 4 sections: A, B, C, D
Operating voltage	60 VDC
Continuous current per signal wire	0.5 A
Max. total current, 4 bytes, each	1.0 A
Test voltage	0.5 KV, 50 Hz, 1 min
Operating temperature range	-20°C to +50°C

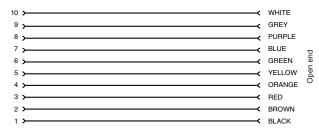
### P2RV-A□□□C

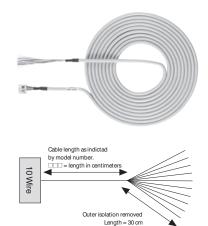
Cable, single sided 10 pole IDC connector, to connect to P2RVC-8-O-F

#### **List of Models**

Model number	Cable length	
P2RV-A100C	1.0 m	
P2RV-A200C	2.0 m	
P2RV-A300C	3.0 m	
P2RV-A500C	5.0 m	

### 10 pole IDC mounting to P2RVC-8-O-F





#### **Technical data**

Control line	AWG26/0.14 mm <sup>2</sup> , tin-plated copper
Diameter cable	6.8 mm
Operating voltage	60 VDC
Continuous current per signal wire	0.5 A
Max. total current	1.0 A
Test voltage	0.5 KV, 50 Hz, 1 min
Operating temperature range	-20°C to +50°C

# ■ Stand-Alone Relays for MRO and Reference

# **Model Number Legend**

G2RV-<u></u> - <u></u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> DC<u></u> 1 2 3 4 5

1. Number of Poles

1: 1 pole

2. Terminals S: Plug-In

3. Relay LED

Blank: Without LED

4. Contact Material Blank: AgSnIn

5. Rated Coil Voltage

11, 21, 48

### **List of Models**

Model number	Replacement for
G2RV-1-S DC11	G2RV-SL7□□/5□□ DC12(DC11)
G2RV-1-S DC21	G2RV-SL7□□/5□□ DC24(DC21)
	G2RV-SL7□□/5□□ AC/DC24
G2RV-1-S DC48	G2RV-SL7□□/5□□ AC/DC48
	G2RV-SL7□□/5□□ AC110
	G2RV-SL7□□/5□□ AC230



# **Accessories (Order Separately)**

### **■ Cross Bars**

### **Model Number Legend**

### 1. Number of Poles

020: 2 poles 030: 3 poles 040: 4 poles 100: 10 poles 200: 20 poles

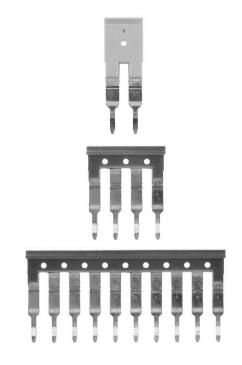
### 2. Color

R:Red

S:Blue

B:Black

Model number	Poles	Color
P2RVM-020□	2	Red (R)
P2RVM-030□	3	Blue (S) Black (B)
P2RVM-040□	4	Diack (D)
P2RVM-100□	10	
P2RVM-200□	20	



### ■ Plastic Labels for G2RV Sockets

Model number	Quantity	Color
	5 sheets x 120 labels = 600 labels (minimum order)	White



# ■ Labels (Stickers) for G2RV Sockets

Model number	Quantity	Color
	10 sheets x 484 labels = 4,840 labels (minimum order)	White

# **■** Separating Plates

Model number	Quantity	Description
P2RV-S	(minimum order)	Provides isolation between adjacent relays to achieve 400 V isolation.

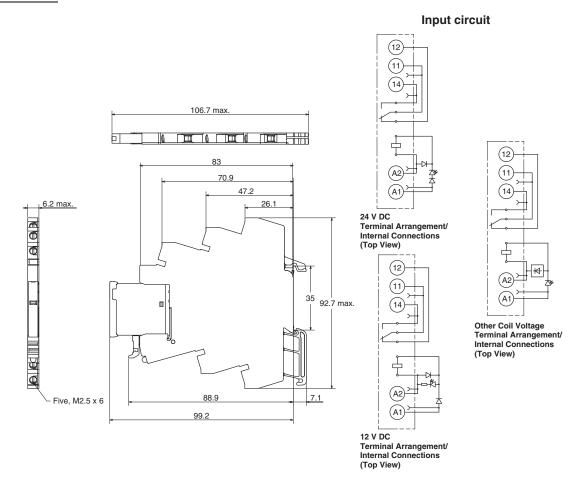


# **Dimensions**

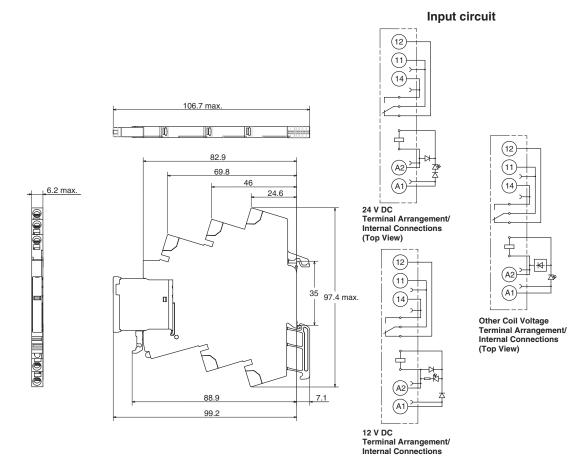
Note: All units are in millimeters unless otherwise indicated.

# **■** Complete Unit

# **G2RV-SL700**

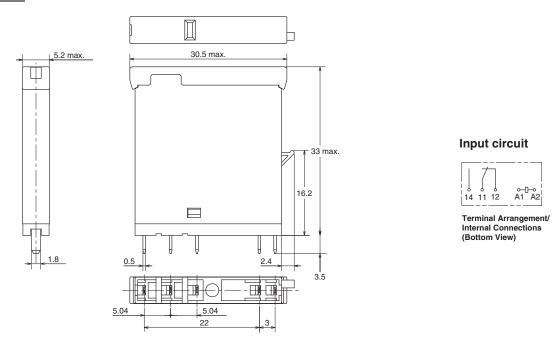


# **G2RV-SL500**



# **■** Single Relay

# **G2RV-1-S**



# Installation

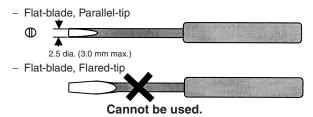
### **■** Tools

G2RV-SL700 series: Flat-blade screwdriver should be used for mounting and / or releasing cables.

G2RV-SL500 series: Flat-bade screwdriver should be used for mounting stranded wires without ferrules and / or releasing cables.

### **Applicable Screwdriver**

• Flat-blade, Parallel-tip, 2.5 mm diameter (3.0 mm max.)



Examples: FACOM AEF.2.5x75E

(AEF. 3x75E) VESSEL No. 9900-(-)2.5x75 (No. 9900-(-)3x100)

WAGO 210-119 WIHA 260/2.5x40 (260/3x50)

# **■** Applicable Wires

### **Applicable Wire Sizes**

#### **G2RV-SL700 Series**

#### **Box Clamp Technology**

Wire type	Applicable Wire Size	Stripping Length
Stranded without ferrules	0.5 - 2.5 mm <sup>2</sup>	7 mm
Stranded with ferrules and plastic collar	0.5 - 2.5 mm <sup>2</sup>	7 mm
Stranded with ferrules without plastic collar	0.5 - 2.5 mm <sup>2</sup>	7 mm
Solid	0.5 - 4.0 mm <sup>2</sup>	7 mm

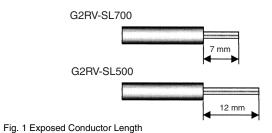
#### **G2RV-SL500 Series**

### **Push-in Technology**

Wire type	Applicable Wire Size	Stripping Length
Stranded without ferrules	0.5 - 2.5 mm <sup>2</sup>	12 mm
Stranded with ferrules and plastic collar	0.5 - 2.5 mm <sup>2</sup>	12 mm
Stranded with ferrules without plastic collar	0.5 - 2.5 mm <sup>2</sup>	12 mm
Solid	0.5 - 4.0 mm <sup>2</sup>	12 mm

# **■** Wiring

Use wires of the applicable sizes specified above. The length of the exposed conductor should be 7 mm for a G2RV-SL700 series, 12 mm for a G2RV-SL500 series.



Slim Relay **G2RV** 

<sup>\*</sup>Chamfering the tip of the driver improves insertion when used as an exclusive tool.

### **Precautions**

### **■** Precautions for Connection

- Do not move the screwdriver up, down, or from side to side while it is inserted in the hole. Doing so may cause damage to internal components (e.g., deformation of the clamp spring or cracks in the housing) or cause deterioration of insulation.
- Do not insert the screwdriver at an angle. Doing so may break the side of socket and result in a short-circuit.
- Do not insert two or more wires in the hole. Wires may come in contact with the spring causing a temperature rise or be subject to sparks. (There are two wiring holes for each terminal.)
- Insert the screwdriver along the hole wall as shown below.
- If lubricating liquid, such as oil, is present on the tip of screwdriver, the screwdriver may fall out resulting in injury to the operator.
- Insert the screwdriver into the bottom of the hole. It may not be possible to connect cables properly if the screwdriver is inserted incorrectly.

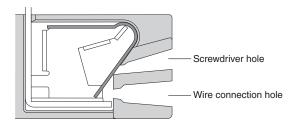
### ■ General Precautions

- Do not use the product if it has been dropped on the ground. Dropping the product may adversely affect performance.
- Confirm that the socket is securely attached to the mounting track before wiring. If the socket is mounted insecurely it may fall and injure the operator.
- Insure that the socket is not charged during wiring and maintenance. Not doing so may result in electric shock.
- Do not pour water or cleansing agents on the product. Doing so may result in electric shock.
- Do not use the socket in locations subject to solvents or alkaline chemicals.
- Do not use the socket in locations subject to ultraviolet light (e.g., direct sunlight). Doing so may result in markings fading, rust, corrosion, or resin deterioration.
- Do not dispose of the product in fire.

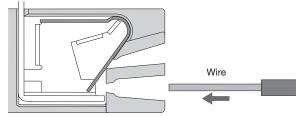
## ■ Removing from Mounting Rail

To remove the socket from the mounting rail, insert the tip of screwdriver in the fixture rail, and move it in the direction shown below.

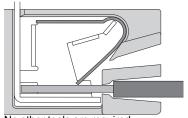
# ■ Wiring Procedure for G2RV-SL500 series



#### Wire insertion



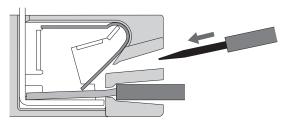
Insert the exposed conductor into the connection hole.



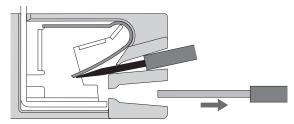
No other tools are required.

Note: In case of wiring stranded wires without ferrules screwdriver should be inserted before inserting the wire. Screwdriver should be removed after fully insertion of the wire.

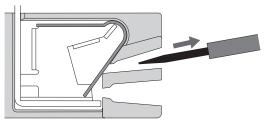
### Wire removal



Insert the specified screwdriver into the release hole.



Removing wire.



Removing screwdriver.

### **Omron Electronic Components, LLC**

#### **Terms and Conditions of Sales**

#### I. GENERAL

Definitions: The words used herein are defined as follows.

Terms: These terms and conditions

(b) Seller: Omron Electronic Components LLC and its subsidiaries

The buyer of Products, including any end user in section III through VI Buyer: (c)

Products: Products and/or services of Seller Including without limitation Including:

Offer: Acceptance: These Terms are deemed part of all quotations, acknowledgments, invoices, purchase orders and other documents, whether electronic or in writing, relating to the sale of Products by Seller. Seller hereby objects to any Terms proposed in Buyer's purchase order or other documents which are inconsistent with, or in addition to, these

<u>Distributor</u>: Any distributor shall inform its customer of the contents after and including section III of these Terms.

- Prices: Payment: All prices stated are current, subject to change without notice by Seller. Buyer agrees to pay the price in effect at the time the purchase order is accepted by Seller. Payments for Products received are due net 30 days unless otherwise stated in the invoice. Buyer shall have no right to set off any amounts against the amount owing in respect of this invoice.
- Discounts: Cash discounts, if any, will apply only on the net amount of invoices sent to Buyer after deducting transportation charges, taxes and duties, and will be allowed only if (a) the invoice is paid according to Seller's payment terms and (b) Buyer has no past due amounts owing to Seller.
- Interest: Seller, at its option, may charge Buyer 1.5% interest per month or the maximum legal rate, whichever is less, on any balance not paid within the stated terms. Orders: Seller will accept no order less than 200 U.S. dollars net billing.

- Currencies: If the prices quoted herein are in a currency other than U.S. dollars, Buyer shall make remittance to Seller at the then current exchange rate most favorable to Seller; provided that if remittance is not made when due, Buyer will convert the amount to U.S. dollars at the then current exchange rate most favorable to Seller available during the period between the due date and the date remittance is actually made.
- Governmental Approvals: Buyer shall be responsible for all costs involved in obtaining any government approvals regarding the importation or sale of the Products.
- Taxes: All taxes, duties and other governmental charges (other than general real property and income taxes), including any interest or penalties thereon, imposed directly or indirectly on Seller or required to be collected directly or indirectly by Seller for the manufacture, production, sale, delivery, importation, consumption or use of the Products sold hereunder (including customs duties and sales, excise, use, turnover and license taxes) shall be charged to and remitted by Buyer to Seller.
- Financial: If the financial position of Buyer at any time becomes unsatisfactory to Seller, Seller reserves the right to stop shipments or require satisfactory security or payment in advance. If Buyer fails to make payment or otherwise comply with these Terms or any related agreement, Seller may (without liability and in addition to other remedies) cancel any unshipped portion of Products sold hereunder and stop any Products in transit until Buyer pays all amounts, including amounts payable hereunder, whether or not then due, which are owing to it by Buyer. Buyer shall in any event remain liable for all unpaid
- Cancellation; Etc: Orders are not subject to rescheduling or cancellation unless Buyer indemnifies Seller fully against all costs or expenses arising in connection therewith.
- Force Majeure: Seller shall not be liable for any delay or failure in delivery resulting from causes beyond its control, including earthquakes, fires, floods, strikes or other labor disputes, shortage of labor or materials, accidents to machinery, acts of sabotage, riots, delay in or lack of transportation or the requirements of any government authority.

Shipping: Delivery: Unless otherwise expressly agreed in writing by Seller:
(a) All sales and shipments of Products shall be FOB shipping point (unless otherwise stated in writing by Seller), at which point title to and all risk of loss of the Products shall pass from Seller to Buyer, provided that Seller shall retain a security interest in the Products until the full purchase price is paid by Buyer;

Delivery and shipping dates are estimates only; and

- Seller will package Products as it deems proper for protection against normal handling and extra charges apply to special conditions.
- 12. Claims: Any claim by Buyer against Seller for shortage or damage to the Products occurring before delivery to the carrier or any claim related to pricing or other charges must be presented in detail in writing to Seller within 30 days of receipt of shipment.

#### **III. PRECAUTIONS**

- Suitability: IT IS THE BUYER'S SOLE RESPOINSIBILITY TO ENSURE THAT ANY OMRON PRODUCT IS FIT AND SUFFICIENT FOR USE IN A MOTORIZED VEHICLE APPLICATION. BUYER SHALL BE SOLELY RESPONSIBLE FOR DETERMINING APPROPRIATENESS OF THE PARTICULAR PRODUCT WITH RESPECT TO THE BUYER'S APPLICATION INCLUDING (A) ELECTRICAL OR ELECTRONIC COMPONENTS. (B) CIRCUITS, (C) SYSTEM ASSEMBLIES, (D) END PRODUCT, (E) SYSTEM (E) MATERIALS OR SUBSTANCES OR (C) OPERATING ENVIRONMENT SYSTEM, (F) MATÉRIALS OR SUBSTANCES OR (G) OPERATING ENVIRONMENT. Buyer acknowledges that it alone has determined that the Products will meet their requirements of the intended use in <u>all</u> cases. Buyer must know and observe all prohibitions of use applicable to the Product/s.
- Use with Attention: The followings are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible use of any Product, nor to imply that any use listed may be suitable for any
  - Outdoor use, use involving potential chemical contamination or electrical interference.

(b) Use in consumer Products or any use in significant quantities.

Energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and

installations subject to separate industry or government regulations.

(d) Systems, machines, and equipment that could present a risk to life or property.

Prohibited Use: NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

Motorized Vehicle Application: USE OF ANY PRODUCT/S FOR A MOTORIZED VEHICLE APPLICATION MUST BE EXPRESSLY STATED IN THE SPECIFICATION BY

SELLER.

<u>Programmable Products:</u> Seller shall not be responsible for the Buyer's programming of a programmable Product.

#### IV. WARRANTY AND LIMITATION

- Warranty: Seller's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Seller (or such other period expressed in writing by Seller). SELLER MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT ALL OTHER WARRANTIES, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCTS.
- Buyer Remedy: Seller's sole obligation hereunder shall be to replace (in the form originally shipped with Buyer responsible for labor charges for removal or replacement thereof) the non-complying Product or, at Seller's election, to repay or credit Buyer an amount equal to the purchase price of the Product; provided that there shall be no liability for Seller or its affiliates unless Seller's analysis confirms that the Products were correctly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification. Return of any Products by Buyer must be
- approved in writing by Seller before shipment.

  <u>Limitation on Liability</u>: SELLER AND ITS AFFILIATES SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY. FURTHER, IN NO EVENT SHALL LIABILITY OF SELLER OR ITS AFFILITATES EXCEED THE INDIVIDUAL PRICE OF THE PRODUCT ON WHICH LIABILITY IS ASSERTED.
- Indemnities: Buyer shall indemnify and hold harmless Seller, its affiliates and its employees from and against all liabilities, losses, claims, costs and expenses (including attorney's fees and expenses) related to any claim, investigation, litigation or proceeding (whether or not Seller is a party) which arises or is alleged to arise from Buyer's acts or omissions under these Terms or in any way with respect to the Products.

#### V. INFORMATION; ETC.

- Intellectual Property: The intellectual property embodied in the Products is the exclusive property of Seller and its affiliates and Buyer shall not attempt to duplicate it in any way without the written permission of Seller. Buyer (at its own expense) shall indemnify and hold harmless Seller and defend or settle any action brought against Seller to the extent that it is based on a claim that any Product made to Buyer specifications infringed intellectual property rights of another party.
- Property: Confidentiality: Notwithstanding any charges to Buyer for engineering or tooling, all engineering and tooling shall remain the exclusive property of Seller. All information and materials supplied by Seller to Buyer relating to the Products are confidential and proprietary, and Buyer shall limit distribution thereof to its trusted employees and strictly prevent disclosure to any third party.

  Performance Data: Performance data is provided as a guide in determining suitability
- and does not constitute a warranty. It may represent the result of Seller's test conditions, and the users must correlate it to actual application requirements.
- Change In Specifications: Product specifications and descriptions may be changed at any time based on improvements or other reasons. It is Seller's practice to change part numbers when published ratings or features are changed, or when significant engineering changes are made. However, some specifications of the Product may be changed without any notice.
- Errors And Omissions: The information on Seller's website or in other documentation has been carefully checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors or omissions.
- Export Controls: Buyer shall comply with all applicable laws, regulations and licenses regarding (a) export of the Products or information provided by Seller; (b) sale of Products to forbidden or other proscribed persons or organizations; (c) disclosure to noncitizens of regulated technology or information.

### VI. MISCELLANEOUS

- <u>Waiver</u>: No failure or delay by Seller in exercising any right and no course of dealing between Buyer and Seller shall operate as a waiver of rights by Seller.
- Assignment: Buyer may not assign its rights hereunder without Seller's written consent. Law: These Terms are governed by Illinois law (without regard to conflict of laws). Federal and state courts in Cook County, Illinois have exclusive jurisdiction for any dispute hereunder.
- Amendment: These Terms constitute the entire agreement between Buyer and Seller relating to the Products, and no provision may be changed or waived unless in writing signed by the parties.
- Severability: If any provision hereof is rendered ineffective or invalid, such provision shall not invalidate any other provision.

# **Certain Precautions on Specifications and Use**

- <u>Suitability for Use</u>. Seller shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in Buyer's application or use of the Product. At Buyer's request, Seller will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases but the following is a non-exhaustive list of applications for which particular attention must be given:
  - Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this document.
  - (ii) Energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government

  - Use in consumer products or any use in significant quantities. Systems, machines and equipment that could present a risk to life or property. Please know and observe all prohibitions of use applicable to this

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

- <u>Programmable Products.</u> Seller shall not be responsible for the user's programming of a programmable product, or any consequence thereof. <u>Performance Data.</u> Performance data given in this publication is provided as
- a guide for the user in determining suitability and does not constitute a war-ranty. It may represent the result of Seller's test conditions, and the users must correlate it to actual application requirements. Actual performance is subject to
- correlate it to actual application requirements. Actual performance is subject to Seller's Warranty and Limitations of Liability.

  Change in Specifications. Product specifications and accessories may be changed at any time based on improvements and other reasons. It is our practice to change part numbers when published ratings or features are change, or when significant construction changes are made. However, some specifications of the Product may be changed without any notice. When in doubt, special part numbers may be assigned to fix or establish key specifications for your application. Please consult with your Seller representative at any time to confirm actual specifications of purchased Product. your application. Please consult will your speller representative at any time to confirm actual specifications of purchased Product.

  <u>Errors and Omissions</u>. The information in this publication has been carefully
- checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors, or omissions.

  RoHS Compliance. Where indicated, our products currently comply, to the best of our knowledge as of the date of this publication, with the requirements of the European Union's Directive on the Restriction of certain Hazardous Substances ("RoHS"), although the requirements of RoHS do not take effect until July 2006. These requirements may be subject to change. Please consult until July 2006. These requirements may be subject to change. Please consult our website for current information.

Complete "Terms and Conditions of Sale" for product purchase and use are on Omron's website at http://www.components.omron.com - under the "About Us" tab, in the Legal Matters section.

Specifications subject to change without notice

#### ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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Cat. No. X301-E-1

06/09

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Global - http://www.omron.com USA - http://www.components.omron.com

Printed in USA