<READ AND UNDERSTAND THIS CATALOG>
Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

**IP64 Drip-proof Construction**
The E6C2-C incorporates a rubber-seal bearing cover of IP64 drip-proof construction thus ensuring ease of use in places with water dripping or sprayed oil.

**Shaft Withstands Heavy Loads**
The bearing used by the E6C2-C is larger than that of the conventional E6C-C, thus withstanding heavier loads.

**Protective Circuit for Output Shorting**
The E6C2-C incorporates a circuit protecting the E6C2-C from damage resulting from the incorrect wiring of output, thus ensuring ease of use.

**33% Smaller than E6C-C**
The E6C2-C uses a high-performance LED indicator, custom-made receiver element, high-density PCB, and seal bearing thus making the E6C2-C 33% smaller than the conventional E6C-C.

**Incorporating Cord to Be Pulled Out Aslant Ensuring Ease of Mounting and Wiring**
To suit the mounting position, it was necessary to select a conventional E6C-C model with a cord that is pulled out horizontally or a model with a cord that is pulled out backwards. The E6C2-C incorporates a cord that is pulled out aslant, thus ensuring ease of mounting and wiring while saving mounting space.
Ordering Information

<table>
<thead>
<tr>
<th>Supply voltage</th>
<th>Output configuration</th>
<th>Resolution (P/R)</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 to 24 VDC</td>
<td>NPN open collector output</td>
<td>10, 20, 30, 40, 50, 60, 100, 200, 300, 360, 400, 500, 600</td>
<td>E6C2-CWZ6C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>720, 800, 1,000, 1,024, 1,200, 1,500, 1,800, 2,000</td>
<td>E6C2-CWZ6C</td>
</tr>
<tr>
<td>12 to 24 VDC</td>
<td>PNP open collector output</td>
<td>100, 200, 360, 500, 600</td>
<td>E6C2-CWZ5B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,000, 2,000</td>
<td>E6C2-CWZ5B</td>
</tr>
<tr>
<td>5 to 12 VDC</td>
<td>Voltage output</td>
<td>10, 20, 30, 40, 50, 60, 100, 200, 300, 360, 400, 500, 600</td>
<td>E6C2-CWZ3E</td>
</tr>
<tr>
<td></td>
<td></td>
<td>720, 800, 1,000, 1,024, 1,200, 1,500, 1,800, 2,000</td>
<td>E6C2-CWZ3E</td>
</tr>
<tr>
<td>5 VDC</td>
<td>Line driver output</td>
<td>10, 20, 30, 40, 50, 60, 100, 200, 300, 360, 400, 500, 600</td>
<td>E6C2-CWZ1X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>720, 800, 1,000, 1,024, 1,200, 1,500, 1,800, 2,000</td>
<td>E6C2-CWZ1X</td>
</tr>
</tbody>
</table>

Note: When ordering, specify the resolution in addition to the model numbers.

■ Accessories (Order Separately)

<table>
<thead>
<tr>
<th>Name</th>
<th>Model</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coupling</td>
<td>E69-C06B</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>E69-C68B</td>
<td>Incorporates ends different to each other in diameter.</td>
</tr>
<tr>
<td></td>
<td>E69-C06M</td>
<td>Metal construction.</td>
</tr>
<tr>
<td>Flange</td>
<td>E69-FCA</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>E69-FCA02</td>
<td></td>
</tr>
<tr>
<td>Servo Mounting Bracket</td>
<td>E69-2</td>
<td>Provided with the E69-FCA02 Flange.</td>
</tr>
</tbody>
</table>

Application Examples

Filler Control

Positioning of Wafer Cutting Machine

Metal Mold Positioning of Injection Molding Machine
Specifications

### Ratings/Characteristics

<table>
<thead>
<tr>
<th>Item</th>
<th>E6C2-CWZ6C</th>
<th>E6C2-CWZ5B</th>
<th>E6C2-CWZ3E</th>
<th>E6C2-CWZ1X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply voltage</td>
<td>5 VDC ~5% to 24 VDC +15%</td>
<td>12 VDC ~10% to 24 VDC +15%</td>
<td>5 VDC ~5% to 12 VDC +10%</td>
<td>5 VDC ±5%</td>
</tr>
<tr>
<td>Current consumption (see note 1)</td>
<td>80 mA max.</td>
<td>100 mA max.</td>
<td>160 mA max.</td>
<td></td>
</tr>
<tr>
<td>Resolution</td>
<td>10, 20, 30, 40, 50, 60, 100, 200, 300, 360, 400, 500, 600, 720, 800, 1,000, 1,024, 1,200, 1,500, 1,800, 2,000 P/R</td>
<td>100, 200, 360, 500, 600, 1,000, 2,000 P/R</td>
<td>10, 20, 30, 40, 50, 60, 100, 200, 300, 360, 400, 500, 600, 720, 800, 1,000, 1,024, 1,200, 1,500, 1,800, 2,000 P/R</td>
<td></td>
</tr>
<tr>
<td>Output configuration</td>
<td>NPN open collector output</td>
<td>PNP open collector output</td>
<td>Voltage output (PNP output)</td>
<td>Line driver output (see note 2)</td>
</tr>
<tr>
<td>Output capacity</td>
<td>Applied voltage: 30 VDC max.</td>
<td>Output current: 35 mA max.</td>
<td>Output resistance: 2 kΩ</td>
<td>AM26LS31 equivalent</td>
</tr>
<tr>
<td></td>
<td>Output current: 35 mA max.</td>
<td>Residual voltage: 0.4 V max.</td>
<td>Output current: 20 mA max.</td>
<td>Output current: High level (Ih): ~20 mA</td>
</tr>
<tr>
<td></td>
<td>Residual voltage: 0.4 V max.</td>
<td>(at sink current of 35 mA)</td>
<td>Residual voltage: 0.4 V max.</td>
<td>Low level (Il): 20 mA</td>
</tr>
<tr>
<td></td>
<td>(at sink current of 35 mA)</td>
<td></td>
<td>(at sink current of 20 mA)</td>
<td>Output voltage:</td>
</tr>
<tr>
<td>Max. response frequency (see note 3)</td>
<td>100 kHz</td>
<td>50 kHz</td>
<td>100 kHz</td>
<td></td>
</tr>
<tr>
<td>Phase difference on output</td>
<td>90°±45° between A and B (1/4T±1/8T)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rise and fall times of output</td>
<td>1 μs max. (control output voltage: 5 V; load resistance: 1 kΩ; cable length: 2 m)</td>
<td>1 μs max. (cable length: 2 m; Isink: 10 mA)</td>
<td>0.1 μs max. (cable length: 2 m; Ih: ~20 mA; Is: 20 mA)</td>
<td></td>
</tr>
<tr>
<td>Starting torque</td>
<td>10 m N·m max.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moment of inertia</td>
<td>1 x 10⁻⁶ kg·m² max.; 3 x 10⁻⁷ kg·m² max. at 600 P/R max.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaft loading</td>
<td>Radial: 50 N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thrust: 30 N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. permissible revolution</td>
<td>6,000 rpm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection circuits</td>
<td>Reversed power supply connection protection circuit, output load short-circuit protection circuit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>Operating: −10°C to 70°C (with no icing)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Storage: −25°C to 85°C (with no icing)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient humidity</td>
<td>Operating: 35% to 85% (with no condensation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>20 MΩ min. (at 500 VDC) between current carry parts and case</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dielectric strength</td>
<td>500 VAC, 50/60 Hz for 1 min between current carry parts and case</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vibration resistance</td>
<td>Destruction: 10 to 500 Hz, 150 m/s² or 2-mm double amplitude for 11 min 3 times each in X, Y, and Z directions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shock resistance</td>
<td>Destruction: 1,000 m/s² (100G) 3 times each in X, Y, and Z directions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IEC60529 IP64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection method</td>
<td>Pre-wired (standard length: 2 m)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 400 g</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>Instruction manual</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: 1. An inrush current of approx. 9 A flows for approx. 0.3 ms right after the E6C2-C is turned on.
2. The line driver output of the E6C2-C is used for data transmission circuitry conforming to RS-422A and ensures long-distance transmission over twisted-pair cable, the quality of which is equivalent to AM26LS31.
3. The maximum electrical response revolution is determined by the resolution and maximum response frequency as follows:
   - Maximum electrical response frequency (rpm) = Maximum response frequency/resolution × 60
   - This means that the E6C2-C Rotary Encoder will not operate electrically if its revolution exceeds the maximum electrical response revolution.
4. Origin Indication
   - It is easy to adjust the position of phase Z with the origin indication function. The following illustration (on the left side) shows the relationship between phase Z and the origin. Set cut face D to the origin as shown in the illustration (on the right side).
### Output Circuit Diagram

**E6C2-CWZ6C**

- **Brown**
- **Black, white, orange**

**E6C2-CWZ3E**

- **Brown**
- **Black, white, orange**

**E6C2-CWZ5B**

- **Brown**
- **Black, white, orange**

Note: 1. The shield is not connected to the internal circuits or casing of the E6C2-C.
2. There is no difference in circuit among phases A, B, and Z.
3. Connect the GND terminal to 0 V or the ground when the E6C2-C is in normal operation.

### Timing Charts

#### NPN Open Collector Output

**E6C2-CWZ6C**

#### PNP Open Collector Output

**E6C2-CWZ5B**

Direction or resolution: Clockwise (CW) (As viewed from the end of the shaft)

1. **ON** Phase A
2. **OFF** Phase B
3. **ON** Phase Z

Note: Phase A is 1/4±1/8T faster than phase B. The ONs in the above timing chart mean that the output transistor is ON and the OFFs mean that the output transistor is OFF.

Direction or resolution: Counterclockwise (CCW) (As viewed from the end of the shaft)

1. **ON** Phase A
2. **OFF** Phase B
3. **ON** Phase Z

Note: Phase A is 1/4±1/8T slower than phase B.

---

Note: Phase A is 1/4±1/8T faster than phase B. The ONs in the above timing chart mean that the output transistor is ON and the OFFs mean that the output transistor is OFF.

Note: Phase A is 1/4±1/8T slower than phase B.
Voltage Output

E6C2-CWZ3E

Direction or resolution: Clockwise (CW)
(As viewed from the end of the shaft)

Direction or resolution: Counterclockwise (CCW)
(As viewed from the end of the shaft)

Note: Phase A is 1/4±1/8T faster than phase B.

Line Driver Output

E6C2-CWZ1X

Direction or resolution: Clockwise (CW)
(As viewed from the end of the shaft)

Direction or resolution: Counterclockwise (CCW)
(As viewed from the end of the shaft)

Note: Phase A is 1/4±1/8T slower than phase B.

Input to More than One Counter from Encoder (with Voltage Output)

Use the following formula to obtain the number of counters to be connected to a single E6C2-C Rotary Encoder.

Number of counters (N) = \( \frac{R_1 (E-V)}{V \times R_2} + \frac{E}{R_2} \)

E: Voltage supplied to Rotary Encoder
V: Minimum input voltage of the counter
R2: Output resistance of the Rotary Encoder
R1: Input resistance of the Counter
**Dimensions**

Note: All units are in millimeters unless otherwise indicated.

### Accessories (Order Separately)

#### Couplings

**E69-C06B**
- Four, M3 hexagon socket heat set screws

**E69-C68B** (With Ends of Different Diameter)
- Four, M4 hexagon socket heat set screws

**E69-C06M** (Metal Construction)
- Four, M3 hexagon socket heat set screws

Note: The coupling is made of glass-reinforced PBT.

Note: Material: Super duralumin

Note: 2-m-long, oil-resistant PVC cable, 5-dia. (conductor cross-section: 0.2 mm², insulator: 1.0 dia.) five conductors and shield (eight conductors for line driver use)
Flanges

E69-FCA

Mounting Bracket: (A set of three Brackets provided with the E69-FCA02)

Mounting Dimensions

Servo Mounting Bracket

E69-2 (A Set of Three)

Note: A set of E69-2 Servo Mounting Brackets is provided with the E69-FCA02 Flange.
**Installation**

### Connection

**E6C2-CWZ6C/-CWZ3E/-CWZ5B**

<table>
<thead>
<tr>
<th>Color</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown</td>
<td>Power supply (+Vcc)</td>
</tr>
<tr>
<td>Black</td>
<td>Output phase A</td>
</tr>
<tr>
<td>White</td>
<td>Output phase B</td>
</tr>
<tr>
<td>Orange</td>
<td>Output phase Z</td>
</tr>
<tr>
<td>Blue</td>
<td>0 V (common)</td>
</tr>
</tbody>
</table>

#### Notes:
- Receiver: AM26LS32 equivalent

### Connection Examples

**H7ER Self-powered Tachometer**

Applicable Model: E6C2-CWZ3E (with a resolution of 10 or 60 P/R)

**H7BR Digital Counter**

Applicable Model: E6C2-CWZ3E

**H7CR-CW Digital Counter**

Applicable Model: E6C2-CWZ6C

### E6C2-CWZ1X

<table>
<thead>
<tr>
<th>Color</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown</td>
<td>Power supply (+Vcc)</td>
</tr>
<tr>
<td>Black</td>
<td>Output phase A</td>
</tr>
<tr>
<td>White</td>
<td>Output phase B</td>
</tr>
<tr>
<td>Orange</td>
<td>Output phase Z</td>
</tr>
<tr>
<td>Black/Red stripes</td>
<td>Output phase A</td>
</tr>
<tr>
<td>White/Red stripes</td>
<td>Output phase B</td>
</tr>
<tr>
<td>Orange/Red stripes</td>
<td>Output phase Z</td>
</tr>
<tr>
<td>Blue</td>
<td>0 V (common)</td>
</tr>
</tbody>
</table>

Note: Receiver: AM26LS32 equivalent

**C200H-CT High-speed Counter Unit**

Applicable Model: E6C2-CWZ6C

Typical Model: C200H-CT001-V1

#### Notes:
- Apply the following connections if the power supply to the E6C2-C is 5 or 24 V.
- Phase A and Power Supply: 5 V to A19 and 24 V to B20
- Phase B and Power Supply: 5 V to A17 and 24 V to B18

Applicable Model: E6C2-CWZ5B

Typical Model: C200H-CT021

#### Notes:
- Apply the following connections if the power supply to the E6C2-C is 12 or 24 V.
- Phase A and Power Supply: 12 V to A8/B8 and 24 V to A9/B9
- Phase B and Power Supply: 12 V to A12/B12 and 24 V to A13/B13
- Phase Z and Power Supply: 12 V to A16/B16 and 24 V to A17/B17
CQM1 Programmable Controller
Applicable Model: E6C2-CWZ6C

C500-CT001/CT012 High-speed Counter Unit
CW and CCW detection (increment/decrement counting)
Applicable Model: E6C2-CWZ6C

CQM1-CPU43-EV1 (as Built-in High-speed Counter)
The pulse output of the E6C2-C can be directly input into IN04, IN05, and IN06 of the CPU Unit to use these three points as a built-in high-speed counter.
The single-phase response speed is 5 kHz and the two-phase response speed is 2.5 kHz. The count value is within a range between 0 and 65,535 in increment mode and –32,767 and 32,767 in decrement mode.
The operating mode of the high-speed counter is set with the PC Setup in the DM area.

Count Mode
<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increment/Decrement</td>
<td>Increment/Decrement counter uses phases A and B.</td>
</tr>
<tr>
<td>Incrementing mode</td>
<td>Increment counter uses phase A only.</td>
</tr>
<tr>
<td>Normal mode</td>
<td>IN04 through IN06 are used for normal input.</td>
</tr>
</tbody>
</table>

Applicable Model: E6C2-CWZ6C

Reset
The present count value can be reset with the soft-reset function or the AND of soft reset and phase Z input.

Output

<table>
<thead>
<tr>
<th>Target value</th>
<th>When the count value reaches the target value, the specified subroutine is executed. A maximum of 16 target values can be set.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range comparison</td>
<td>When the count value is within the range, the specified subroutine is executed. A maximum of 8 ranges can be set with upper and lower limits.</td>
</tr>
</tbody>
</table>
Precautions

**WARNING**

This product is not designed or rated for ensuring safety of persons. Do not use it for such purpose.

1. Do not impose voltage exceeding the rated voltage range on the E6C2-C, otherwise the E6C2-C may be damaged.
2. Be sure that the wiring of power supply to the E6C2-C is correct, otherwise the E6C2-C may be damaged.
3. Turn off the Rotary Encoder when wiring.
4. Do not wire power lines or high-tension lines along with the power supply lines of the E6C2-C Rotary Encoder or the E6C2-C Rotary Encoder may be damaged or malfunction.

### Precautions for Safe Use

#### Mounting

Be careful not to spray water or oil onto the E6C2-C Rotary Encoder. The E6C2-C Rotary Encoder consists of high-precision components. Handle with utmost care and do not drop the Rotary Encoder, otherwise malfunctioning may result. Do not pull the cable of the E6C2-C Rotary Encoder after the E6C2-C Rotary Encoder is mounted to a panel. Do not apply any shock to the hollow shaft or the body.

When the E6C2-C Rotary Encoder is mounted with screws, the tightening torque must be approximately 0.5 N·m. If the Rotary Encoder is mounted to a panel, do not pull the cable with more than a force of 30 N.

No shock must be given to the shaft or coupling. Therefore, do not hit the shaft or coupling with a hammer when inserting the shaft into the coupling.

Refer to the following illustrations when using a standard coupling.

#### Life of Bearing

The following graph shows the life expectancy of the bearing with radial and thrust loads imposed on the bearing. (Theoretical)

![Graph showing life expectancy of bearing](image)

#### Mounting Procedure

1. Insert the shaft into the coupling. Do not secure the coupling and shaft with screws at this stage.
2. Secure the Rotary Encoder. Refer to the following table for the maximum insertion length of the shaft into the coupling.

<table>
<thead>
<tr>
<th>Model</th>
<th>Maximum insertion length</th>
</tr>
</thead>
<tbody>
<tr>
<td>E69-C06B</td>
<td>5.5 mm</td>
</tr>
<tr>
<td>E69-C06M</td>
<td>8.5 mm</td>
</tr>
</tbody>
</table>

3. Secure the coupling.

<table>
<thead>
<tr>
<th>Model</th>
<th>Tightening torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>E69-C06B</td>
<td>0.25 N·m</td>
</tr>
<tr>
<td>E69-C06M</td>
<td>0.7 N·m</td>
</tr>
</tbody>
</table>

4. Connect the power and I/O lines. Be sure to turn off the Rotary Encoder when connecting the lines.
5. Turn on the Rotary Encoder and check the output.
Connecting

When extending the cord, select the kind of cord with care by taking the response frequency into consideration because the longer the cord is, the more the residual voltage increases due to the resistance of the cord and the capacitance between the wires. As a result, the waveform will be distorted.

We recommend the line driver output type model if the cord needs to be extended.

In order to reduce inductive noise, the cord must be as short as possible, especially when the signal is input to an IC.

Insert a surge absorber between the power supply terminals if there is any surge.

A wrong pulse may be generated when the E6C2-C Rotary Encoder is turned on or off. Do not use the connected device for 0.1 s after the E6C2-C Rotary Encoder is turned on and for 0.1 s before the E6C2-C Rotary Encoder is turned off.

Cord Extension

The rise time of each output waveform will increase when the cord is extended. This affects the phase difference characteristics of phases A and B.

The available length of cord varies with the response frequency and noise. It is safer to limit the length of cord to 10 m maximum. If a longer cord of up to 100 m is required, use line driver output.

Note: Recommended Cord:
- Cross section: 0.2 mm² with spiral shield
- Conductor resistance: 92 Ω/km max. at 20°C
- Insulation resistance: 5 MΩ/km min. at 20°C

The rise time varies with the resistance of the cord and the kind of cord as well as the length of the cord.

The residual output voltage will increase according to the length of the cord.

Conditions
- Rotary Encoder: E6C2-CWZ6C
- Load voltage: 5 VDC
- Load resistance: 1 kΩ (The residual output voltages were measured with a load current of 35 mA.)
- Cord: Dedicated cord

Preventing Miscounting

If the operation of the E6C2-C Rotary Encoder is stopped near a signal rising or falling edge, a wrong pulse may be generated, in which case the E6C2-C Rotary Encoder will miscount. In such a case, use an increment-decrement counter to prevent miscounting.

Extension of Line Driver Output

Be sure to use a twisted-pair cable to extend a line driver cord. Use an RS-422A Receiver for the receiver side.

The twisted-pair wires as shown in the following illustration are suitable for RS-422A signal transmission. Normal mode noise can be eliminated by twisting the wires because the generated electrical forces on the lines cancel each other.

Be sure the E6C2-C Rotary Encoder is supplied with 5 VDC when a line driver output is used. There will be an approximately 1-V voltage drop if the cable length is 100 m.
WARRANTY
OMRON’s exclusive warranty is that the products are free from defects in materials and workmanship for a period of one year (or other period if specified) from date of sale by OMRON.

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The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of the products, nor is it intended to imply that the uses listed may be suitable for the products:
- Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this document.
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- Systems, machines, and equipment that could present a risk to life or property.

Please know and observe all prohibitions of use applicable to the products.

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PERFORMANCE DATA
Performance data given in this document is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of OMRON’s test conditions, and the users must correlate it to actual application requirements. Actual performance is subject to the OMRON 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 model numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the product may be changed without any notice. When in doubt, special model numbers may be assigned to fix or establish key specifications for your application on your request. Please consult with your OMRON representative at any time to confirm actual specifications of purchased products.

DIMENSIONS AND WEIGHTS
Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

ERRORS AND OMISSIONS
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PROGRAMMABLE PRODUCTS
OMRON shall not be responsible for the user's programming of a programmable product, or any consequence thereof.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. Q109-E1-05

In the interest of product improvement, specifications are subject to change without notice.

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