System configuration

- Remote part: It will supply power to the lead batteries.
- Base part: It supplies a movement power supply necessary for the remote part.

Safety Considerations

Please read carefully before using and full attention to Safety Considerations. (See the attached T318501)

Dimention and specification of RVE-433-2-PU-01

<table>
<thead>
<tr>
<th>Type code</th>
<th>RVE-433-2-PU-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>24V DC ± 10% (nominal)</td>
</tr>
<tr>
<td>Current consumption</td>
<td>≤ 6A</td>
</tr>
<tr>
<td>Power supply</td>
<td>24V (DC)</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP65, IP67</td>
</tr>
<tr>
<td>Protection function</td>
<td>Overcurrent protection, Reverse connection protection, Battery unconnected protection</td>
</tr>
<tr>
<td>Cable</td>
<td>PUR Ø 8.6 / 3x2.5mm</td>
</tr>
<tr>
<td>Material</td>
<td>Case: PPS / Heat sink: Aluminum</td>
</tr>
<tr>
<td>Weight</td>
<td>1.6kg + 0.15kg/m (cable)</td>
</tr>
<tr>
<td>Accessories</td>
<td>Two ferrite clamps</td>
</tr>
</tbody>
</table>

Cable color explanation

<table>
<thead>
<tr>
<th>Color</th>
<th>GND</th>
<th>Brown</th>
<th>Blue</th>
</tr>
</thead>
</table>

Protection function

- Overcurrent protection
- Reverse connection protection
- Battery unconnected protection
- Battery voltage 24V DC
- Charging current max. 4A
- Battery 24V lead battery

Operating temperature

- 0...+50℃
- Natural convection

Protection function

- Battery reverse connection or non-connection error
- Battery unconnected error

Recommend cable length

- 100mm
- 75mm
- 45mm
- 300mm

Installation note

In order to avoid influence of surrounding metal, or to avoid mutual influence between parallel-mounted sensors, keep the minimum free zone as described below.

Please set axis misalignment between RVE and RVT within X and Y respectively within 4 mm.

[Attention about the installation]

(1) When facing a remote part and a base part a bit away from the transmitting area, the built-in relay in RVT-433 might repeatedly open and close. When both parts remain facing condition, we recommend to use within rated transmitting area to prevent to shorten their life.

(2) Since this product is a natural air cooling type, please consider natural convection not keep the heat.

(3) Because this product is to prevent malfunction or failure due to noise, please be attached so that the heat sink is grounded to the frame ground.

Dimention and specification of RVT-433-404-PU-01

<table>
<thead>
<tr>
<th>Type code</th>
<th>RVT-433-404-PU-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating distance</td>
<td>0...1000mm</td>
</tr>
<tr>
<td>Drive voltage</td>
<td>≤ 28V DC</td>
</tr>
<tr>
<td>Drive current</td>
<td>≤ 4.3A</td>
</tr>
<tr>
<td>Power supply</td>
<td>24V (DC)</td>
</tr>
<tr>
<td>Protection function</td>
<td>Battery unconnected protection</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>0...+50℃</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP65/PF7</td>
</tr>
<tr>
<td>Cable</td>
<td>PUR Ø 8.6 / 3x2.5mm</td>
</tr>
<tr>
<td>Material</td>
<td>Case: PPS / Heat sink: Aluminum</td>
</tr>
<tr>
<td>Weight</td>
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<tr>
<td>Accessories</td>
<td>Two ferrite clamps</td>
</tr>
</tbody>
</table>

Cable color explanation

<table>
<thead>
<tr>
<th>Color</th>
<th>GND</th>
<th>Brown</th>
<th>Blue</th>
</tr>
</thead>
</table>

Protection function

- Battery unconnected protection
- Battery voltage 24V DC
- Charging current max. 4A
- Battery 24V lead battery

Operating distance

- ≤ 10 ±4 ±4
- ≤ 54 ±4 ±4

Please consult our sales department about cable length exceeding 1 m.
Charging Characteristics

The GS Yuasa made PE12V12 connected two series, after a 50% discharge, evaluate the charging characteristics in the combination of the RVE-433-2-PU / RVT-433-404-PU.

Attention

- In the over-discharge state (below the battery voltage of about 20V), to limit the charging current to about 1.2A. Usually returns to the charge cycle and when it is more than about 20V.
- When the output current from the RVT-433-404-PU is less than or equal to about 0.4A, it will transition to float charge.
- When the output current from the RVT-433-404-PU is more than about 0.8A, to migrate from the float charge to the normal state of charge.
- Battery voltage is about 15V or less, or if you have connected about 30V or more of the battery even when the opposing state does not start charging operation.

Bending radius of Cable

The minimum bending radius for the sensors are 50mm.

Never pull the cable strongly installing

Typical Transmitting Diagram (Supply voltage at 21.6V / non-flush mount)

Wiring

1. In order to meet the EMI (Radiation radio frequency electromagnetic field immunity) standards, the ferrite core clamp of bundled, please attach two clamps within 20cm from the body. The number of turns is two turns.
2. If you want to extend the cable is in consideration of the voltage drop, please use a sufficiently thick cable.

■ Ferrite clamp installation image

20cm within.

Ferrite clamp

(1) In order to meet the EMC (IEC61000-4-3. Radiation radio frequency electromagnetic field immunity) standards, the ferrite core clamp of bundled, please attach two clamps within 20cm from the body. The number of turns is two turns.
(2) If you want to extend the cable is in consideration of the voltage drop, please use a sufficiently thick cable.

Typical Transmitting Diagram (Supply voltage at 21.6V / non-flush mount)

Curve: Representative example (When the power supply voltage is 21.6V / non-flush mount)
Square frame line: Operating distance

Charging Characteristics

RVT-433-404-PU Charging Characteristics

The GS Yuasa made PE12V12 connected two series, after a 50% discharge, evaluate the charging characteristics in the combination of the RVE-433-2-PU / RVT-433-404-PU.

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