1. MOUNTING

1.1 Mounting Cautions

(1) This instrument is intended to be used under the following environmental conditions:

- | (EC/2011-65) | (OVERVOLTAGE CATEGORY II; POLLUTION DEGREE 2) |
- | Use for indoor installation in the following conditions:
- | Ambient temperature: -20°C to -50°C |
- | Relative humidity: 40% to 90% (non-condensing) |

(2) Do not mount the instrument to a surface which may cause condensation, such as a caste wall, wall, or door, etc.

(3) Do not mount the instrument to a surface which may cause direct shock or vibration, such as a sensitive instrument or machine.

(4) To prevent electric shock or instrument failure, always turn off the power before handling or removing the instrument.

(5) Mount the instrument in the horizontal direction for panel. If you did installation except a horizontal direction, this cause malfunction.

1.2 Dimensions

<table>
<thead>
<tr>
<th>Unit (mm)</th>
<th>149.8</th>
<th>220.5</th>
</tr>
</thead>
</table>

1.3 Procedures of Mounting and Removing

Mounting procedures

1. Push the mounting holes through the panel cutout.
2. Insert the mounting bracket into the mounting holes on the sides of the instrument, avoiding the power supply terminals, and tighten the screws to secure the instrument.
3. Ensure all the screw holes are in the proper position.

Removing procedures

1. Turn the power OFF.
2. Remove the mounting brackets and parts.
3. Lift the back of the mounting bracket (B) up.
4. Pull the instrument from the mounting bracket (C) to remove it from the case. (Fig. 4)
5. Mount the other mounting bracket in the same way as described in 3 in 2.
6. Push the instrument from the mounting bracket while holding the front panel frame of this instrument. (Fig. 5)

2. WIRING

2.1 Wiring Cautions

- Use a shielded cable for connection with the pressure sensor.
- To avoid noise induction, keep communication signal wire away from instrument power line, load and power wires of other equipment.
- Be sure to provide a surge control circuit respectively for the following:
  - High-voltage connections such as power supply terminals must be enclosed in the instrumentation panel to avoid electric shock by operating personnel.
  - Do not use a volatile solvent such as paint thinner to clean the instrument. Deformation may occur when cleaning the instrument.

2.2 Terminal Configuration

3. INSTALLATION

3.1 Accessories check

- PG500 Installation Manual (IMR02F02-ED)
- PG500 Operation Manual (IMR02F02-ED)
- PG500 Communication Quick Reference Guide (IMR02F02-AED)
- Mounting brackets (with screw)
- Unit seal (SR-5B5)
- Only PG500 provided with the communication function

3.2 Safety precautions

- Ensure at least 50 mm space on top and bottom of the instrument for maintenance and environmental reasons.
- The other mounting bracket should be removed in the same way as described in 3 in 2.
- Provide reinforced insulation between the wire for the input signal and the wires for high-voltage connections such as power supply terminals.
- Be sure to provide an appropriate surge control circuit respectively for the following:
  - Do not mount the instrument to a surface which may cause condensation, such as a caste wall, wall, or door, etc.
  - Provide reinforced insulation between the wire for the input signal and the wires for high-voltage connections such as power supply terminals.

- **WARNING**
  - An external protection device must be installed if failure of this instrument could cause damage in the instrument, equipment, or injury to personnel.
  - All wiring must be completed before power is turned on to prevent electric shock, fire, or damage to instrumentation and equipment.
  - This instrument must be used in accordance with the specifications to prevent damage to instrumentation and equipment.
  - This instrument is not intended for use in locations subject to flammable or explosive gases.
  - Do not touch high-voltage connections such as power supply terminals, etc. to avoid electric shock or injury.
  - RKC is not responsible if this instrument is repaired, modified, or disassembled by other than factory-approved personnel. Malfunction can occur when use is voided under these conditions.

- **CAUTION**
  - This product is intended for use as a test measurement instrument, and measuring equipment.
  - It is not designed for use with medical equipment and nuclear energy.
  - This is a Class B instrument. In a domestic environment, this equipment may cause radio interference, in which case the user may be required to take adequate measures.

- **NOTICE**
  - This manual describes the mounting, wiring, and communication methods of this instrument.
5. SPECIFICATIONS

5.1 Input

<table>
<thead>
<tr>
<th>Measured Input (PV)</th>
<th>Sensor type: Strain gauge type of pressure sensor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input range:</td>
<td>* Including zero point adjustment range</td>
</tr>
<tr>
<td>Gain setting range:</td>
<td>0.000 to 1000 mV/MPa (One decimal place)</td>
</tr>
<tr>
<td></td>
<td>0.000 to 1999 mV/MPa (Two decimal places)</td>
</tr>
<tr>
<td></td>
<td>0.000 to 19999 mV/MPa (Three decimal places)</td>
</tr>
</tbody>
</table>

5.2 Functions

<table>
<thead>
<tr>
<th>Peak/hold function</th>
<th>The peak/hold function is used to store (hold) the maximum (peak) and minimum (bottom) measured values (PV).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm function</td>
<td>[Optional]</td>
</tr>
</tbody>
</table>

5.3 Transmission output (AO)

<table>
<thead>
<tr>
<th>Transmission output (AO)</th>
<th>Accuracy</th>
<th>Output range</th>
<th>Allowable output resistance</th>
<th>Output impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>AO output</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.4 Power supply for strain gauge type of pressure sensor

<table>
<thead>
<tr>
<th>Power supply</th>
<th>Rated voltage</th>
<th>Rated current</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV output</td>
<td>5 V DC</td>
<td>20 mA max.</td>
</tr>
<tr>
<td>PV (output)</td>
<td>0 to 1 V DC</td>
<td>500 mV or less</td>
</tr>
<tr>
<td>0 to 5 V DC</td>
<td>500 mV or less</td>
<td></td>
</tr>
</tbody>
</table>

5.5 Display range limit

| Shield_SHD (E) | 19.999 (Three decimal places) |
| Shield (E)     | 99.99 (Two decimal places)     |
| CZ-100P/CZ-200P Red (A) | 99.999 (Four decimal places) |

5.6 Self-diagnostic function (FAIL)

<table>
<thead>
<tr>
<th>System error</th>
<th>Error message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input error</td>
<td>Error number is displayed [Operation: Impossible].</td>
</tr>
<tr>
<td>Calibration error</td>
<td>Error number is displayed [Operation: Impossible].</td>
</tr>
<tr>
<td>Alarm output</td>
<td>Error number is displayed [Operation: Impossible].</td>
</tr>
</tbody>
</table>

5.7 General specifications

<table>
<thead>
<tr>
<th>Power supply voltage</th>
<th>90 to 240 V AC [Including power supply voltage variation]</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV output</td>
<td>50/60 Hz (Rating: 100 to 240 V AC)</td>
</tr>
<tr>
<td>PV (output)</td>
<td>0 to 10 mV DC</td>
</tr>
<tr>
<td>0 to 5 V DC</td>
<td>500 mV or less</td>
</tr>
<tr>
<td>0 to 10 mV DC</td>
<td>500 mV or less</td>
</tr>
<tr>
<td>PV (output)</td>
<td>0 to 5 V DC</td>
</tr>
</tbody>
</table>

6. MODEL CODE

6.1 Suffix code

<table>
<thead>
<tr>
<th>Model code</th>
<th>P500G</th>
<th>P500</th>
<th>C500</th>
<th>P5000G</th>
</tr>
</thead>
</table>

7.2.3 Connection to Pressure Sensor

7.2.6 Connection to our CZ-100P/CZ-200P

7.4.4 Connection to control and communication data (optional) (Refer to the P500 Operation Manual [MRPZG-010] and P500 Communication Quick Instruction Manual [MRPZG-012])

8. PARTS DESCRIPTION

8.2 MAIN BODY

8.3.2.1 Control panel setting

8.4.2.1 Button key

8.5 Display and operation

8.6.1.1 Measured input (PV) or various precalibrated scales and units.

8.6.1.2 Measured output (AO) or analog output (AO) (Optional)

8.6.1.3 Performance (at the ambient temperature 23 ± 2 °C)

8.6.1.3 Output type

8.6.1.3 Performance output terminals

8.6.1.3 Power terminal

8.6.1.3 Measuring and sensor power supply terminals

8.6.1.3 Alarm output terminal

8.6.1.3 Grounding terminal

8.6.1.3 Battery power supply and measuring terminals

8.6.1.3 Connection to control and communication data (optional) (Refer to the P500 Operation Manual [MRPZG-010] and P500 Communication Quick Instruction Manual [MRPZG-012])

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