Autonics
Intelligent Temperature Transmitter
KT-502H

**M A N U A L**

**Model**
KT-502H

**Power supply**
10.5-45VDC (with backlit LCD)

**Display method**
PV display: 7 Segment digit (character size: W4xH4mm), Parameter display: 14 Segment digit (character size: W2.8xH4mm), 52 bar meter

**Display range**
-200°C to 650°C

**Setting method**
HART-protocol (no setting key)

**Response time**
1 sec.

**RTD**
DPt100Ω, DPt500Ω, DSQ100Ω, Ntc100Ω, Ntc100Ω, Cu50Ω, Cu100Ω

**Thermocouple**
K, J, T, E, N, B, R

**Resistance to 400Ω**
0 to 1000Ω

**Voltage trans.**
-10-75mV

**Ambient temp.**
-20 to 70°C, storage: 20 to 80°C

**Load**
Max (V power supply - 7.5V)/0.22A

**Warranty**
2 years

**Body**
Aluminum

**Dimensions**

**Input type and range**

<table>
<thead>
<tr>
<th>RTD</th>
<th>Input range (Ω)</th>
<th>Input range (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPt100Ω</td>
<td>400Ω to 1000Ω</td>
<td>-200°C to 650°C</td>
</tr>
<tr>
<td>DPt500Ω</td>
<td>200Ω to 250Ω</td>
<td>-10°C to 100°C</td>
</tr>
<tr>
<td>Cu50Ω</td>
<td>30Ω to 150Ω</td>
<td>-10°C to 150°C</td>
</tr>
<tr>
<td>Ntc100Ω</td>
<td>50Ω to 150Ω</td>
<td>-10°C to 150°C</td>
</tr>
<tr>
<td>Cu100Ω</td>
<td>50Ω to 150Ω</td>
<td>-10°C to 150°C</td>
</tr>
</tbody>
</table>

**Analog**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Input range (mV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5V</td>
<td>-500mV to 2000mV</td>
</tr>
<tr>
<td>10V</td>
<td>-1000mV to 5000mV</td>
</tr>
</tbody>
</table>

**Specifications**

**Current Trimm adjustment**

Connect a HART communicator and adjust current trim as below by a HART communicator.

1. Device Setup by ①. Select the "Device Setup" by <F1> keys and press the <OK> key.
2. Process Variables by ②. Select the "Process Variables" by <F1> keys and press the <OK> key.
3. Diag/Service by ③. Select the "Diag/Service" by <F1> keys and press the <OK> key.
4. Basic Setup by ④. Select the "Basic Setup" by <F1> keys and press the <OK> key.
5. Hysteresis by ⑤. Select the "Hysteresis" by <F1> keys and press the <OK> key.
6. Display by ⑥. Select the "Display" by <F1> keys and press the <OK> key.
7. Test by ⑦. Select the "Test" by <F1> keys and press the <OK> key.
8. D/A trim by ⑧. Select the "D/A trim" by <F1> keys and press the <OK> key.
9. PV LRV by ⑨. Select the "PV LRV" by <F1> keys and press the <OK> key.
10. PV URV by ⑩. Select the "PV URV" by <F1> keys and press the <OK> key.
11. PV Ao by ⑪. Select the "PV Ao" by <F1> keys and press the <OK> key.
12. URV by ⑫. Select the "URV" by <F1> keys and press the <OK> key.

**Temperature range setting**

Connect a HART communicator and set temperature range as below by a HART communicator.

1. Offline by ①. Enter meter value 4,896.
2. No by ②. Enter meter value 4,896.
3. Yes by ③. Enter meter value 4,896.
4. D/A trim by ④. Enter meter value 4,896.
5. URV by ⑤. Enter meter value 4,896.
6. PV by ⑥. Enter meter value 4,896.
7. PV Ao by ⑦. Enter meter value 4,896.
8. PV LRV by ⑧. Enter meter value 4,896.
9. PV URV by ⑨. Enter meter value 4,896.
10. URV by ⑩. Enter meter value 4,896.
11. PV Ao by ⑪. Enter meter value 4,896.
12. PV by ⑫. Enter meter value 4,896.

**Caution for your safety**

1. Please read these instructions and review them before using this unit.
2. Do not connect, inspect or repair this unit when power is on.
3. In cleaning unit, do not use water or organic solvent. And use dry cloth.
4. Check explosion-proof standard (Ex d IIC T6) of this unit and do not use it in place where there are flammable or explosive gas, humidity, direct ray of the light, radiant heat, vibrations, impact etc.
5. In using unit, do not inflow dust or wire dregs into the unit.
6. Please keep these instructions and review them before using this unit.
7. It may cause a fire.
8. It may cause electric shock or a fire.
9. It may cause a fire or a malfunction.
10. It may cause electro shock or a fire.

**Dimensions**

**Connections**

**Opening cover**

To open the cover, unscrew the M3 X 8L headless screw using a 1.5 hexagon wrench and rotate the cover.

**Major products**

- Pressure sensors
- Fiber optic sensors
- Hall/Eddy current sensors
- Contact sensors
- Non-contact sensors
- Pressure sensors
- Flow sensors
- Flow transmitters
- Temperature transmitters
- Level sensors
- Displacement transducers
- Temp./Humidity transducers
- Switching mode power supplies
- Temperature controllers
- Motion controllers
- Signal/Level converters
- Indexing/Labeling systems
- Touch Screen/Plc/Pcu modules
- Fiber optic cable/Ethernet cable

**Contact**

sales@autonics.com

http://www.autonics.com