### 6. Connections

**Jumpers**

<table>
<thead>
<tr>
<th>Option</th>
<th>Module A2</th>
<th>Module A1</th>
<th>Module M1</th>
<th>Module S1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Com.</td>
<td>NC</td>
<td>Active</td>
<td>Passive</td>
</tr>
<tr>
<td>2</td>
<td>NC</td>
<td>NC</td>
<td>Passive</td>
<td>Active</td>
</tr>
<tr>
<td>3</td>
<td>NC</td>
<td>NC</td>
<td>Common</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>NC</td>
<td>NC</td>
<td>-</td>
<td>0/10 VDC</td>
</tr>
<tr>
<td>5</td>
<td>NC</td>
<td>NC</td>
<td>-</td>
<td>0/10 mA</td>
</tr>
</tbody>
</table>

**Potentiometers**

- Option 1: S1, R2, T
- Option 2: S1, R2, T

**Thermocouples**

<table>
<thead>
<tr>
<th>Jumpers</th>
<th>Thermocouple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>B</td>
</tr>
<tr>
<td>Option 2</td>
<td>K</td>
</tr>
</tbody>
</table>

**Ni100**

- Option 1: -1999 to 100
- Option 2: -1999 to 100

**Ni200**

- Option 1: -1999 to 200
- Option 2: -1999 to 200

**Katy-121**

- Option 1: -1999 to 200
- Option 2: -1999 to 200

**Katy-220**

- Option 1: -1999 to 200
- Option 2: -1999 to 200

**Jumpers**

- Option 1: 4-5
- Option 2: 4-5

**Option Modules**

- Display module: for signal/range selection
- Custom module: for 1 function selection

**Jumpers**

- Option 1: 4-5
- Option 2: 4-5

**Option 1**

- Jumper (‘S’)
- Jumper (‘T’)
- Accuracy (% reading)

**Option 2**

- Jumper (‘S’)
- Jumper (‘T’)
- Accuracy (% reading)

**Resistance Ranges**

- 4-5
- 4-5

**Ni200**

- Option 1: 4-5
- Option 2: 4-5

**Katy-121**

- Option 1: 4-5
- Option 2: 4-5

**Katy-220**

- Option 1: 4-5
- Option 2: 4-5

**Frequency**

- Option 1: 300 to 20 K
- Option 2: 300 to 20 K

**Accuracy**

- Option 1: 0.25 to 0.5
- Option 2: 0.25 to 0.5

**PTC Probes**

- Option 1: 1.5 to 100
- Option 2: 1.5 to 100

**Accuracy**

- Option 1: 0.15 of reading
- Option 2: 0.15 of reading

**Ntc Probes Rₚₚ (configurable)**

- Option 1: 4-5
- Option 2: 4-5

**Accuracy**

- Option 1: 1.5 of reading
- Option 2: 1.5 of reading

### 5. Installation and start-up

1. Open the instrument (see section 7).
2. Select the jumpers for the desired signal range (see section 8).
3. Close the instrument (see section 7).
4. Connect the signal and the power (see section 6).
5. Configure the instrument from the "Configuration menu" (see section 9).
6. If you need additional information, see section 3.

### 7. How to open and install the instrument

Use a flat screwdriver to unlock clips 'D', 'C', 'B' and 'Y', in this order. Remove the front filter. Gently let the internal boards slide out of the instrument.

To reinstall the boards in the housing:

1. Make sure that the boards are correctly connected to the display pins.
2. Slide the boards into the housing guides.
3. Place the front filter at corner X, and then insert clips 'A', 'B', 'C' and 'Y' in this order.

Risk of electric shock. Removing the front cover will grant access to internal circuits which may be at dangerous voltage. Disconnect the input signal and the power supply to prevent electric shock to the operator. Operation must be performed by qualified personnel only.

### 4. How to order

**Model**

- Option 1
  - DP20
- Option 2
  - DP20

**Potentiometers**

- Option 1: 1 relay
- Option 2: 1 relay

How to install the meter in a panel:

1. Remove the 2 blue fixation tabs from each side of the unit.
2. After setting internal jumpers selection and housing is closed, insert instrument from the front of the panel into panel cut out.
3. Re-attached the 2 blue fixation tabs by sliding each one along its rail on each side and push until the tabs are tight onto the panel. If needed use a flat screwdriver to push the tabs strongly to the end.

### 2. Dimensions and panel cut-out (mm/in)

- 48 mm (1.89 in)
- 96 mm (3.78 in)
- Panel cut-out (mm): 114 (2.78 in)
- 91 mm (3.58 in)

### 3. Additional documentation

- Toview the DP20 spec sheet, video and manuals visit us at http://www.omega.com/ppts/DP20.html
Quick installation guide DP20 (page 2/2)

9. Configuration menu

Press 'SQ' for 1 second to access the 'Configuration menu'.

10. Regulations

This instrument conforms to the actual CE regulations. For a copy of the 'CE declaration of conformity' see section 3. Applicable regulations are:

- Security regulations EN-61010-1 (‘hard’ equipment, ‘permanently connected’).
- ‘Double’ isolation, ‘CAT II’ category.
- Electromagnetic compatibility regulations EN-61326-1

This instrument does not provide a general mains switch and self-start operation as soon as power is connected. The instrument does not provide protection fuse, and the fuse must be added during installation.

Risk of electrical shock. Instrument terminals can be connected to dangerous voltage.

Instrument protected with double isolation. No earth connection required.

Instrument conforms to CE rules and regulations.

According to directive 2012/19/EU, electronic equipment must be recycled in a selective and controlled way at the end of its useful life.

11. Factory configuration

Software configuration
- Range, scaling and decimal point: 0/600 Vac = 0/600
- Alarm 1 as maximum
- Hysteresis: 0 counts
- Alarm 2 as maximum
- Setpoint: 1000
- Hyd: 0 counts
- External control: off
- Fast access: all off

Tools
- Option 1: off (retains last configuration value)
- Step: 1
- Average: 0
- Manual offset: 0
- Second scaling: 0/600
- ‘Eco’ mode: off
- Temperature resolution: 2º
- Degrees: 1ºC
- Alpha: 385
- L: on
- AC ‘deadband’: 20
- Luminosity: 3
- Password: off
- Option: off

Analog output: 0/100.0 = 4/20 mA
Serial Modbus RTU: 9600 bps, address 1, format 8n1

Hardware configuration
- Jumper ‘T’: Jumper in position G & I. Range for 600 Vac
- Jumper ‘I’: Jumper in position 4-5. External contact ‘EK’ function

12. User’s manual

If you need additional information, see section 3 to download the full User’s Manual.