Quick installation guide DP20 (page 1/2)

1. Front view

- Alarm 1 and 2
- Key ‘LE’
- Key ‘SQ’

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

- 91 mm (3.58 in) (including terminal)
- 68 mm (2.68 in)
- 75.2 mm (2.95 in)
- 8 mm (0.31 in)

3. Additional documentation

To view the DP20 spec sheet and manuals visit us at http://www.omega.com/ppts/DP20.html

4. How to order

- Model
- Option 1: (1 relay) -S1 (Modbus RTU) -S2 (relay output)
- Option 2: (1 relay) (empty)

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 5).
6. If you need additional information, see section 3.

6. Connections

- Option A2 relay
- Option A1 relay
- Option S1 (Modbus RTU)
- Power: 18/265 Vac/DC (isolated)
- Input signal terminal
- Fuse: 12345 890
- G I
- H
- D
- A
- K
- E
- J
- I
- F
- H
- K
- A
- B
- C
- D

7. How to open the instrument

1. Enter into ‘Configuration menu’
2. Validate parameter
3. Select the jumpers for the desired signal range (see section 8).

8. Internal structure and jumpers for range selection

- Jumper ‘S’
- Jumper ‘T’ for terminal 5 function selection
- Protection fuse value: 250 mA time-lag for power voltage > 50 Vac/dc
- 400 mA time-lag for power voltage < 50 Vac/dc

- Resistance ranges
  - 0 to 5 K
  - 0 to 50 K

- Process signals
  - Scalable
  - Jumper ‘S’
  - Jumper ‘T’
  - Accuracy (% FS)

- Temperature ranges
  - Signal
  - Potentiometers
  - Jumper ‘S’
  - Jumper ‘T’
  - Accuracy (% reading)

- Thermocouples
  - Jumper ‘S’
  - Jumper ‘T’
  - Range in °C (in °F)
  - Total error

- Connections

- DC ranges
  - Scalable
  - Jumper ‘S’
  - Jumper ‘T’
  - Accuracy (% FS)

- AC ranges
  - Scalable
  - Jumper ‘S’
  - Jumper ‘T’
  - Accuracy (% FS)

- Protective fuse value:
  - 250 mA time-lag for power voltage > 50 Vac/dc
  - 400 mA time-lag for power voltage < 50 Vac/dc

- How to install the jumper

1. Make sure that the boards are correctly connected to the displays 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 ‘D’ in this order.

- Risk of electric shock. Removing the front cover will grant access to internal circuits which may be at dangerous voltage.

- 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.
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:

- Electromagnetic compatibility regulations EN-61326-1

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

- 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.

11. Factory configuration

Range, scaling and decimal point
- Alarm 1: 0/400 Vac = 0/400 as maximum
- Setpoint: 1000
- Hysteresis: 0 counts
- Alarm 2: 0/400 Vac = 0/400 as maximum
- Setpoint: 1000
- Hysteresis: 0 counts
- External control: off
- Fast access: all off
- Tools
  - Option 1: Analog display
  - Option 2: Analog display
- Modbus RTU
  - Address: 1 to 247
  - Speed: 9600 bps
  - Format: 8N1

12. User’s manual

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