ANGEL GUARD

CLARENCE

Installation Instructions

Clarence C-1 Water Monitoring Device

IHEEM   IEG Tech Awards   bcia awards   NTA   CIBSE BUILDING PERFORMANCE AWARDS

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Clarence C-1 Remote Water Monitoring Box

C-1 Device With 1.2m Power	CC-S-34-10-4G
C-1 Device With 5m Power	CC-S-35-10-4G
C-1 Device with Outdoor Power	CC-S-36-10-4G
Biofilm Sensor Package 15mm Brass	**CC-S-11-23-EX**
Biofilm Sensor Package 22mm Brass	CC-S-11-11-EX
Biofilm Sensor Package 28mm Brass	CC-S-11-12-EX
Biofilm Sensor Package 35mm Brass	CC-S-11-13-EX
Biofilm Sensor Package 42mm Brass	CC-S-11-14-EX
Biofilm Sensor Package 20mm Plastic	CC-S-11-15-EX
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Biofilm Sensor Package 32mm Plastic	CC-S-11-17-EX
Biofilm Sensor Package 40mm Plastic	CC-S-11-18-EX
C-1 Additional Biofilm Cable	CC-S-11-04-EX
C-1 Additional Biofilm Box	CC-S-11-03-EX
C-1 Replacement Biofilm Sensor	CC-S-11-05-EX
Replacement 1.2m Power	CC-S-11-19-EX
Replacement 5m Power	CC-S-11-20-EX
Replacement Outdoor Power	CC-S-11-21-EX

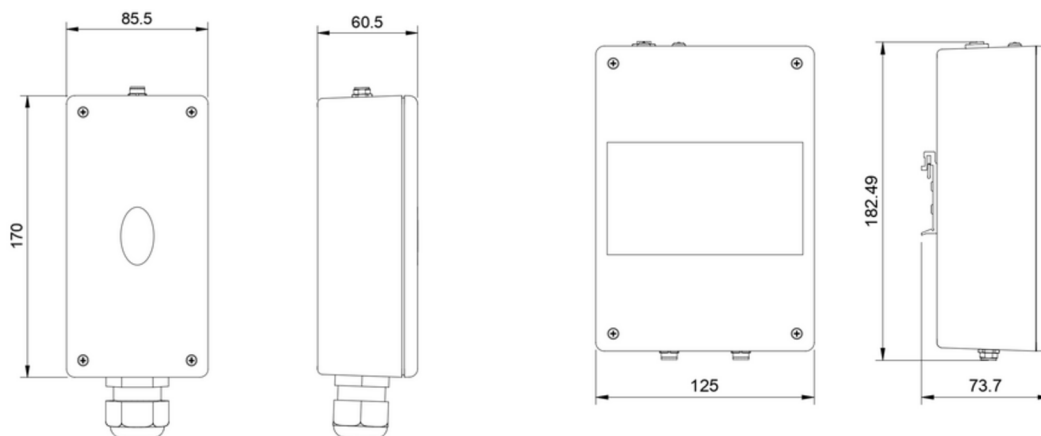Material Type:

Controller Box: Black ABS

Sensor Box: Black ABS

Pipe Fittings: Brass

Weight:

Controller Box: 0.35 kg

Sensor Box: 0.325 kg

Notes:

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General Information

These products are designed for hot and cold water services, with the ability to monitor hot/cold/mixed/return water.

All monitoring devices should be installed and used in accordance with appropriate specifications or codes of practice and Angel Guard technical recommendations.

Electrical connections (where applicable) –all installations must be correctly earthed. If in doubt, the installation should be handled by a qualified electrician in accordance with current regulations.

Installation of the device should becarefully planned to ensure that existing joints and pipework are not disturbed or stressed.

Installation should be carried out in accordance with all current water supply (water fittings) regulations and all relevant building regulations.

Angel Guard Clarence water monitoring devices are tested and comply with the requirements of current United Kingdom Water Regulations/Bye-laws (Scotland).

All relevant components/materials carry

WRAS and KIWA certification

Product Performance:

Ambient operating temperatures between 5°C to 55°C

Pressure up to a maximum 16 bar (for water temperatures between 5 °C and 90°C)

All copper is Cu-DHP grade giving excellent corrosion and very-high fire resistance

Copper acts as a bactericide helping to suppress bacterial growth

Approximately 90% of Clarence devices and components can be recycled after use

No hot works permits or insurance are required due to

heat-free jointing

Guarantee:

Angel Guard products carry a 5-year guarantee against manufacturing defects when installed in accordance with these installation instructions and guidelines.

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Installation

Screwdriver Tape Measure

DIN Rail
(fitted in position with appropriate fixings for the type of wall/surface)

Marker/Pen Digital Temperature Probe
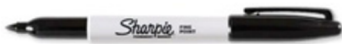(suitable for measuring the surface temperature of a pipe)

Digital Temperature Probe

Screwdriver

DIN Rail

Marker/Pen

Measuring Tape

Spanners

It is intended that a technically competent installer should undertake installation.

When you are ready to start, ensure that you have the right tools to hand and have isolated the pipework ahead of time, either via pre-existing full bore isolation valves or the addition of suitable fittings either side of the C-1 device.

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C-1 Device

1. When considering the location for the C-1 device, use the information found in the "Location Advice" document (which can be found on the Angel Guard website).

2. Using the dimensions for the C-1 device (see page 3), mark the positions for the wall fixings (for the DIN Rail) and the Compression pipe fittings (that are on the sensor box).

3. If installing the C-1 into a pre-existing section of pipework; first you must ensure the water is isolated either side of the installation site, then measure, mark and cut out the required section.

4. Secure the Controller box to the wall in the pre-marked position where you have fitted the DIN rail

5. Fit the tee to the pipework. Insert the Sensor into the tee, ensuring both sensor and tee are correctly tightened to avoid leakage.

6. Secure sensor to appropriate place.

7. Check pipework is secure and leak-proof.

8. Connect Sensor Box to the Controller Box, using the supplied cable.

9. Insert the provided power supply into the device and then insert the attached 3 pin plug into a suitable socket. Turn on supply power to the C-1 device.

10. Check to see that the green LED found on the device is lit once power has been supplied to the unit.

11. Once power has been supplied , move on to the commissioning step (found on the next page).

Follow these steps to commission your O-1 device:

1. Scan the QR code on your device, which sends you to the login portal.

2. Enter login details to gain access to the commissioning page.

3. Fill in the information requested on the commissioning page ensuring the 6 -digit ID no. matches the one on the device.

4. The final step in the commissioning is to undergo a temperature calibration. The steps for this are found on the next page.

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Calibration

The final step of the commissioning process is the calibration of your temperature readings. To do so:

1. Click on the calibration button found on the commissioning page.
2. Run the water until the temperature has reached a stable level (leave the water running until you have finished the calibration).
3. Using the digital temperature probe, take a reading of the outside of the pipe where the temperature sensor is fitted.
4. Enter this temperature into the calibration page for the correct sensor probe.
5. Submit your reading.
6. Repeat these steps if calibrating additional temperature sensors.

You have now completed the commissioning process, and your Clarence C-1 device will now be fully operational.

The calibration process can also be manually initiated, when required, from the device dashboard. To do so, find the Calibration button on the device page, and follow the same steps as listed above.

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Regular care and maintenance requirements have been kept to a minimum, but the following will help to ensure the devices have a long life and will provide trouble-free operation.

Every 12 months:

1. Check that the outer box looks to be in good condition, cleaning the outside faces of the box using a clean cloth.

2. Check for Leaks on the tee and Sensor connections.

3. Calibrate your device's temperature sensors to ensure accurate readings.

   You will be alerted when 12 months have passed without a calibration.
   Follow the steps previously detailed in the Calibration section.