

CH1 TEN Relative Humidity Control Unit

INSTALLATION

- Screw the control box to a firm flat surface with external brackets provided. Try to site the unit so that the digital display can easily be seen by the operator.
- The unit needs a permanent 240v ac supply 50Hz. (2 amps). A voltage free changeover control relay is available within the CH1 box. This relay will energise when the RH level falls below the pre-set level.
- The sensor connections are on a terminal strip within the control box. This can be wired with 3-core 0.5mm flexible mains cable and can be extended up to 50 metres in length.



The controller utilises a single control set point adjustable from 20 - 90% RH. When the humidity drops below the pre-set level the internal control relay energises as indicated by the Red LED above the set dial. The controller has inbuilt time delays on the control relay to prevent Hunting of electrical motors etc.

This works as follows:

- Once energised the relay will remain on for 10 minutes regardless of RH fluctuations.
- When the relay releases it will not re-energise for a further 10 minutes. For calibration and testing purposes these timers can be overridden by a test push button. When HELD IN the relay changeover is immediate - when RELEASED the timers revert to normal functions.

Relative humidity level is displayed on the Red LED %

RH Display. Resolution is to 1% RH.

Avoid positioning the sensor in a location of very still air where condensation may occur for long periods.

Electronic RH sensors are very sensitive and will react to small water droplets in the vicinity of the sensor.

- Adjustable set point and single relay which can be used to power fans, louvres, etc.
- Digital Display of actual RH%
- Comes complete with an HC-L2 RH Sensors and 6m of cable
- Red LED indicator light to show when relay is energised.

If the sensor were to be required outside, it should be enclosed using the standard FE Ltd outside protective cover tube or in a waterproof box with holes drilled to allow air changes of outside air conditions. The sensor must be protected from the direct sun or rainfall. If mounting the RH sensor in an air duct with a high air speed, the sensor element should be shielded from the direct air blast. This can be achieved by positioning the sensor behind a frame etc. or by placing a metal or wood plate in front of the sensor. Failure to do this will result in the filter becoming clogged with dirt particles thereby rendering it inaccurate. The push on phosphor bronze filter protects the actual sensor element from direct moisture droplets, dust and dirt. It can be removed for cleaning, by carefully twisting it off its retainer sleeve. Wash in warm soapy water and dry thoroughly before replacing. Always replace filter IMMEDIATELY to protect the sensor element. Replacement filters can be supplied. Sensors can be recalibrated and/or reconditioned by returning them to Farm Electronics. Only the sensor head itself needs to be returned. This is removable from the sensor lead using the plug and socket provided. Recalibration On Site is not recommended. All RH sensors should be returned to Farm Electronics for checking at least every 2 to 3 seasons, dependent upon application.