

CLIMATE CONTROL FOR FRUIT STORAGE



It's well known that you can't compare apples with oranges. This also applies to the storage of various kinds of fruit. Very stringent requirements are placed on storage in order to ensure that fresh fruit is available throughout the year.

For the correct storage of fruit it is important that the metabolic activity of the fruit and the decomposition of valuable constituents is greatly slowed down by low temperatures. A constantly high humidity prevents the fruit from drying out. The precise measurement and control of humidity and temperature plays a central role in both traditional cold storage as well as in modern CA (*Controlled Atmosphere*) warehouses.

In cold storage, the temperature is kept constant at between -1 °C to +6 °C depending on the type of fruit. Additional humidifying systems ensure a stable humidity of between 92 and 98% relative humidity. In addition to humidity and temperature, in a CA warehouse the oxygen and carbon

dioxide content is also monitored and maintained at the required level with the very latest measurement technology.



CA fruit storage

Humidity and temperature measurement:

The EE33 is ideal for the precise measurement of temperature and humidity. Because of the constantly high humidity, model "J" or "K" is used. Double sensor heating (where both the sensor tube and the humidity sensor are heated) reliably prevents condensation and ensures stable measurement results over long periods.

CO₂ measurement:

CO₂ monitoring is performed with the CO₂ measuring transducers EE82 or EE871. The patented auto-calibrate function compensates for any aging effects (even if there is no fresh air supply) and ensures excellent long-term stability.

• Application conditions

Measurement range:	0...100 %rel. hum.. / -40...60°C / 0...10.000 ppm
Output:	4 – 20 mA or 0 - 10 V
Conditions of use:	Temperature -2...+6 °C
	Humidity: constant > 92 % rel. hum.
	CO ₂ : up to 10,000 ppm

• E+E Products



EE33 Model J or K

High accuracy measurement of relative humidity, dewpoint and temperature close to the condensation point.



EE82 and EE871

CO₂ measuring devices for sophisticated applications.