# FreshView®

## EC12 Environmental Controller

Technical Data
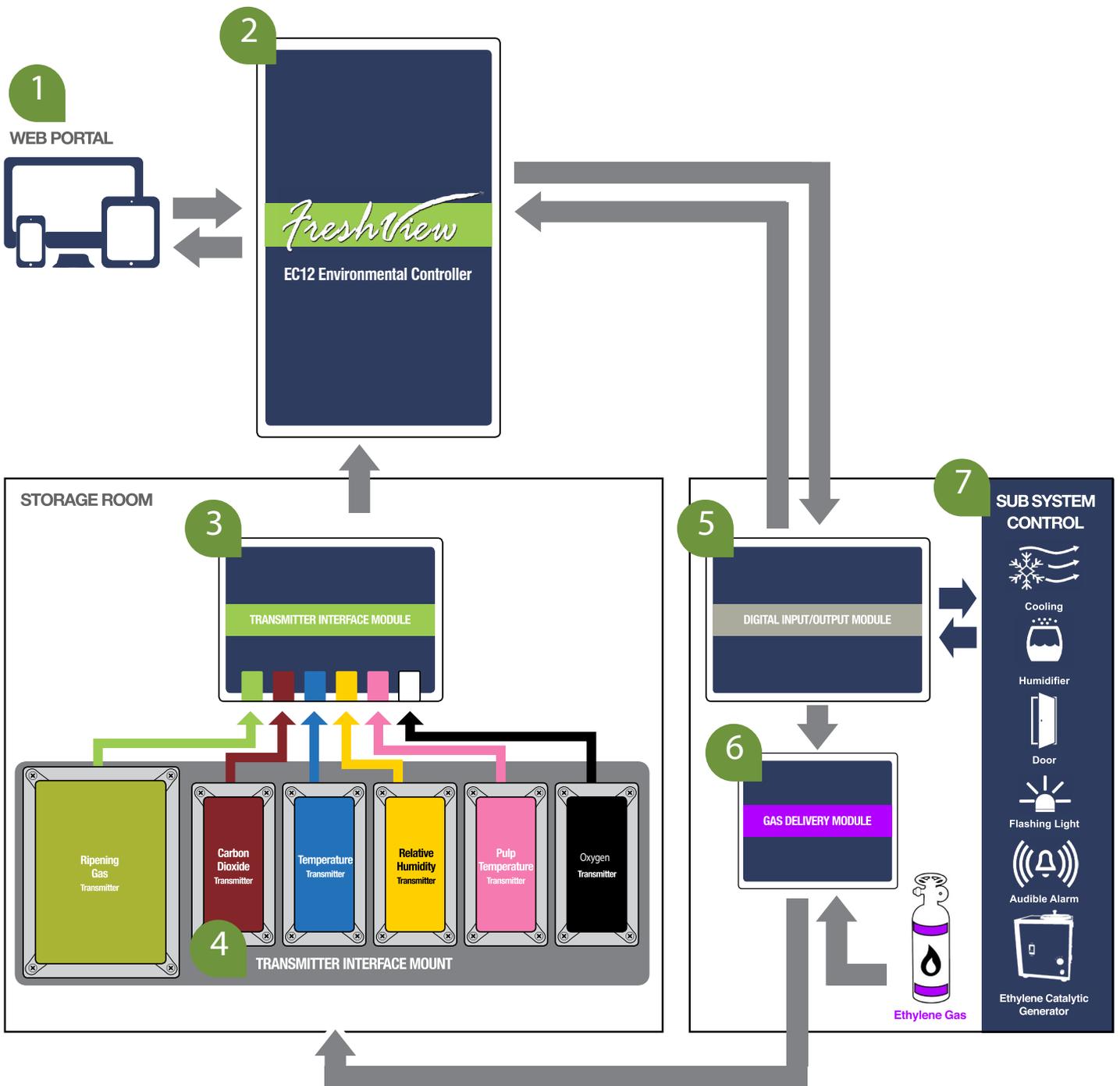
MONITOR • CONTROL • RIPEN • DEGREEN • STORAGE • SAFETY

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# A typical setup

Below is how the FreshView® EC12 monitors & controls just one room.
You can network up to 12 rooms each with 6 transmitters.

The EC12 receives and responds to data from 6 transmitters (for Ethylene, CO2, O2, Room Temperature, Relative Humidity, and Pulp Temperature) and triggers audible / visual or SMS alerts if pre-set levels are exceeded. To view status or change settings, the EC12 is easily accessed on-site via a 12" touch screen display or remotely through a secure web portal using any web-enabled device



1 WEB PORTAL

2 FreshView
EC12 Environmental Controller

STORAGE ROOM

3 TRANSMITTER INTERFACE MODULE

Ripening Gas Transmitter
Carbon Dioxide Transmitter
Temperature Transmitter
Relative Humidity Transmitter
Pulp Temperature Transmitter
Oxygen Transmitter

4 TRANSMITTER INTERFACE MOUNT

5 DIGITAL INPUT/OUTPUT MODULE

6 GAS DELIVERY MODULE

Ethylene Gas

7 SUB SYSTEM CONTROL

Cooling
Humidifier
Door
Flashing Light
Audible Alarm
Ethylene Catalytic Generator

1 Web Portal enables remote access, monitoring & control of the EC12 via 3G , 4G or LAN from web-enabled devices

2 EC12 Environmental Controller (PDS-EC-12) controls system configuration and access either on-site and from anywhere by 1 web portal

3 Transmitter Interface Module (PDS-EC-RM-TX-INT) collects data from up to 6 transmitters per room and sends it to the 2 EC12

4 Transmitter Interface Mount houses up to 6 transmitters

5 Digital Input/Output Module (PDS-EC-DIM-XX-XX / PDS-EC-DOM-XX-XX) enables the EC12 to interact with 7 other subsystems with up to 36 inputs and 20 outputs

6 Gas Delivery Module (PDS-EC-GDM-4C) delivers gas to 4 storage rooms from a single gas source

7 Subsystems controlled by 2 EC12 (e.g. cooling, humidification, dehumidification, door, flashing light, audible alarm, ethylene catalytic generator)

# Sensors & Transmitters

PDS offers a range of high quality Australian-made transmitters for use with the EC12 Environmental Controller and on their own.

These include transmitters for Ethylene, $CO_2$, $O_2$, Room Temperature, Relative Humidity, Pulp Temperature - and other parameters as needed. Each transmitter is robust, durable, water and dust-resistant and can be interfaced with other monitoring and control systems.

The EC12 Environmental Controller can be used with our transmitters and those manufactured by third parties.

| | [2]IP65 (enclosure), IP54 (sensor) | | | [2]IP65 (enclosure), IP54 (sensor) | | |
|---|---|---|---|---|---|---|
| Transmitter type: | Ripening Gas Transmitter (PDS-EC-TX-RG1000/100) | Carbon Dioxide Transmitter (PDS-EC-TX-CO2) | Temperature Transmitter (PDS-EC-TX-T) | Relative Humidity Transmitter (PDS-EC-TX-RH) | Pulp Temperature Transmitter (PDS-EC-TX-PT) | Oxygen Transmitter (PDS-EC-TX-O2) |
| Measuring Range: | 0 to 1000 / 0 to 100 ppm | 0 to 20% $CO_2$ 0 to 5% $CO_2$ | -40 to +60 degrees C | 0 to 100 %RH | -40 to +60 degrees C | 0 to 25% $O_2$ |
| Sensor Technology: | PID / PID | NDIR | Pt100 RTD | Capacitive | Pt100 RTD | Capillary Flow Control |
| Accuracy: | n/a | +/- 0.5% $CO_2$ +/- 0.125% $CO_2$ | +/- 0.2 degrees C | +/- 2% RH | +/- 0.2 degrees C | +/- 0.1% $O_2$ |
| Sensitivity: | ± 1 ppm if <= 100ppm or if > 100 ppm 10% of value | 0.25% $CO_2$ | n/a | n/a | n/a | n/a |
| Long-term Stability: | n/a | Within 5% of range over 5 years | 0.2 degrees C over two years | +/- 2% RH over two years | 0.2 degrees C over two years | +/- 0.1% $O_2$ over two years |
| Warm-up time: | 1 minute | <30 minutes to reach specifications | n/a | n/a | n/a | n/a |
| Power: | 8 to 35 VDC | 10 to 30 VDC | n/a | 9 to 30 VDC | n/a | 7.5 to 35 VDC |
| Output: | Analogue: 4 to 20 mA | Analogue: 4 to 20 mA | 3WRTD | Analogue: 4 to 20 mA | 3WRTD | Analogue: 4 to 20 mA |
| Probe Cable Length: | n/a | n/a | n/a | n/a | 5 metres (other lengths available to order) | n/a |
| Probe Construction: | n/a | n/a | n/a | n/a | 316 stainless-steel body, 4 mm (OD), 150 mm (L), with tapered chisel-end tip | n/a |

## Sales Enquiries

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For more information and to download
the EC12 product brochure go to

### freshview.com.au

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Your FreshView® EC12 distributor: