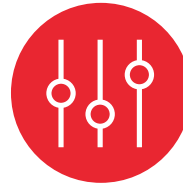


Control Panel Solutions

CONTROL PANEL SOLUTIONS

A Division of Eurotec Ltd

CONTROL PANEL SOLUTIONS



Control Panel Solutions (CPS), a division of Eurotec Ltd, has been building control panels for the HVAC&R and Industrial sectors since 2008. CPS integrates and value-adds to the extensive range of HVAC&R and Electrical control and monitoring Solutions sold by Eurotec to New Zealand industry for over 30years.

CPS is supported by the wealth of industry and application knowledge that has been synonymous with Eurotec for over a quarter of a century, with a focus on providing quality control panels at competitive prices, yet providing clients with custom solutions to meet their application requirements.

With a wide range of in-house expertise and products, we have the ability to produce complete turnkey control panel solutions that are pretested and programmed before going to site, therefore minimizing the installation time and providing faster on-site commissioning.

This profile features a selection of projects which demonstrate the range of Control Panel Solution's capabilities.



Control Panel for Transcritical CO2 Plant

This electrical and control panel was specifically designed and built by CPS to be part of a Transcritical CO2 system.

This was the first Transcritical plant for both Eurotec and plant manufacturer, so they needed an internationally proven and reliable controls option, which was achieved by using Carel pRack300T.

The CPS team needed to work closely with the plant designer to ensure their detailed control requirements were met.



- + 250amp Main Isolator
- + 120amp MCCB
- + 2 x Carel pRack300T controllers for Main and Parallel compressor racks
- + Carel EEV drivers for the 2 x Carel High Pressure Valves
- + Individual controllers for each rooms temperature and defrost control
- + Carel 'bOSS' supervisory module
- + 22", Touch Screen HMI for 'bOSS' supervisory system



Control Panel for Fruit Cold Storage applications

This panel was a standard Control Panel Solutions design to serve a four room apple coolstore.

- + 2 x 67amp compressor circuits
- + Controlled with a Carel pRACK300 controller
- + 1 x VSD Compressor, 1 x Staged Compressor



Control Panel for Cold Storage applications

This panel was a standard Control Panel Solutions design. The rack supplied refrigeration to eight medium sized temperature rooms, and each room was controlled with Carel SmartCella controllers. The panel also controlled a separate condensing unit for a Blast Chiller.

- + 250amp rated panel
- + 4 x compressor rack
- + 3 x condenser fans
- + Carel pRack100 controller



Controls for Retail & Refrigerated Goods storage

MPX PRO MT & LT panels

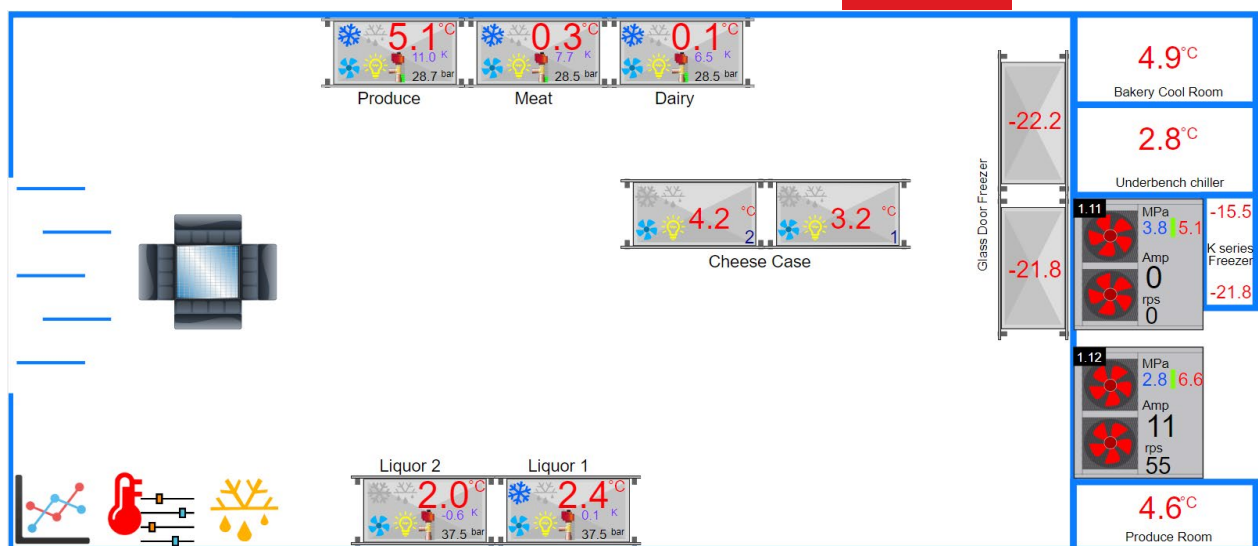
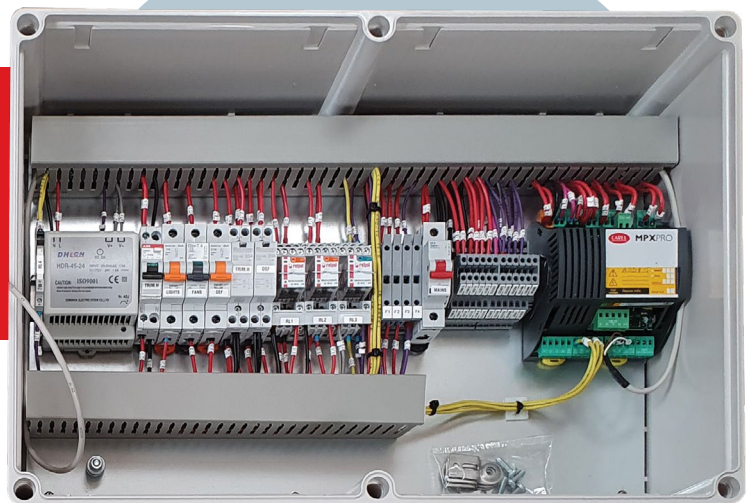
Plug-and-play style smart controls for Supermarket/Retail sector.

These low-profile control boxes contain the MPXPRO controller with on-board EEV driver – this makes for a sensible solution for cabinet and cold room control.

Two control panel designs are perfect for Medium Temperature (MT) and Low Temperature (LT) applications.

- + Both versions provide: Lighting power and control.
- + The LT version includes: Defrost power; and Heat-trace element power.

Combined with a bOSS Supervisor, this is a powerful solution for most DX refrigeration storage applications including CO2 systems.



Control Panel for Flower Export Cold Storage facility

This project involved the design , build and commissioning of a full Carel Control system to manage 5 refrigerated zones in a flower export processing facility. CPS built the panel as one assembly which was then delivered to site in Canterbury.

The 5 zones were split across two independent Compressor rack systems with remote condensers. Carel pRack300 was used on each system for semi hermetic compressor management with part winding start and unloaders for capacity control.

Further enhancements on this system in the near future will be to upgrade lead compressors to operate with Eaton DG1 Variable Frequency Drives and DH1 model for the condenser fans which will deliver tighter control and save on energy at the same time.

- + All evaporators in the zones have Carel Electronic Expansion Valves (EEV) being driven by EVD Evolution Drivers and backed up by Ultracap modules for shutdown in the event of a power failure
- + Carel IR33+ manages the temperature and defrost control of the zones
- + Whole system is supervised by Carel Boss Mini

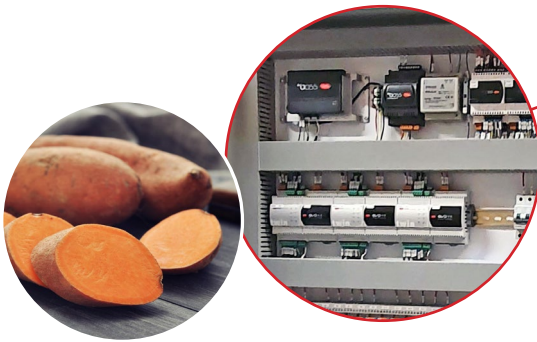


Controls for Kumara age and quality control

This custom built panel for a three-room Kumara store, required CPS to design and build a control system that met a detail specification.

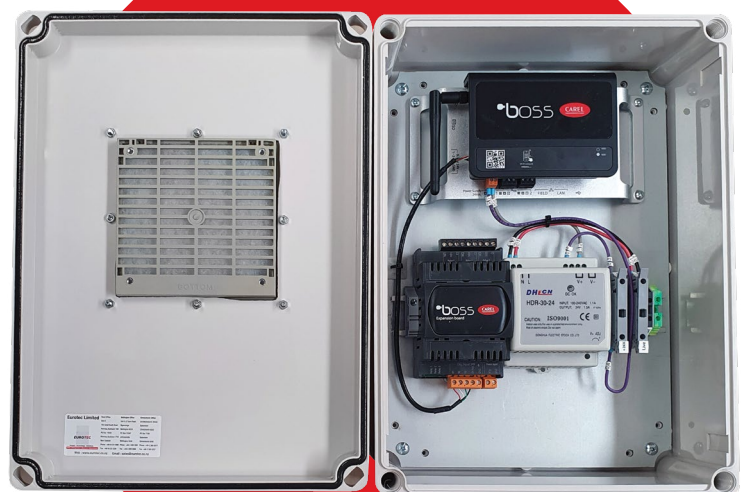
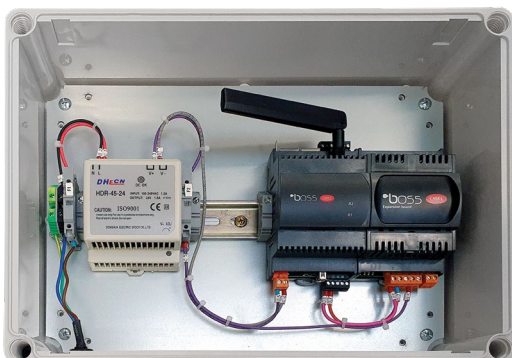
Most of the operational logic is based off a proven procedure, controlling age and quality of Kumara by Carel c.pCO PLC. This panel also includes power distribution for a ~120kW compressor rack.

All system controls integration into Carel bOSS.



Carel bOSS Supervisory Panel

Carel bOSS Supervisor, mounted in a CPS enclosure, containing: 24VDC power supply; 3x relay output module; fuses; and filtered temperature ventilation. Below: bOSS Micro SPx Panel. Right: bOSS Mini SPx Panel.



Please contact your local Eurotec Refrigeration Sales Engineer from the list below for a no obligation catch up to see how we can add value to your controls package.

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