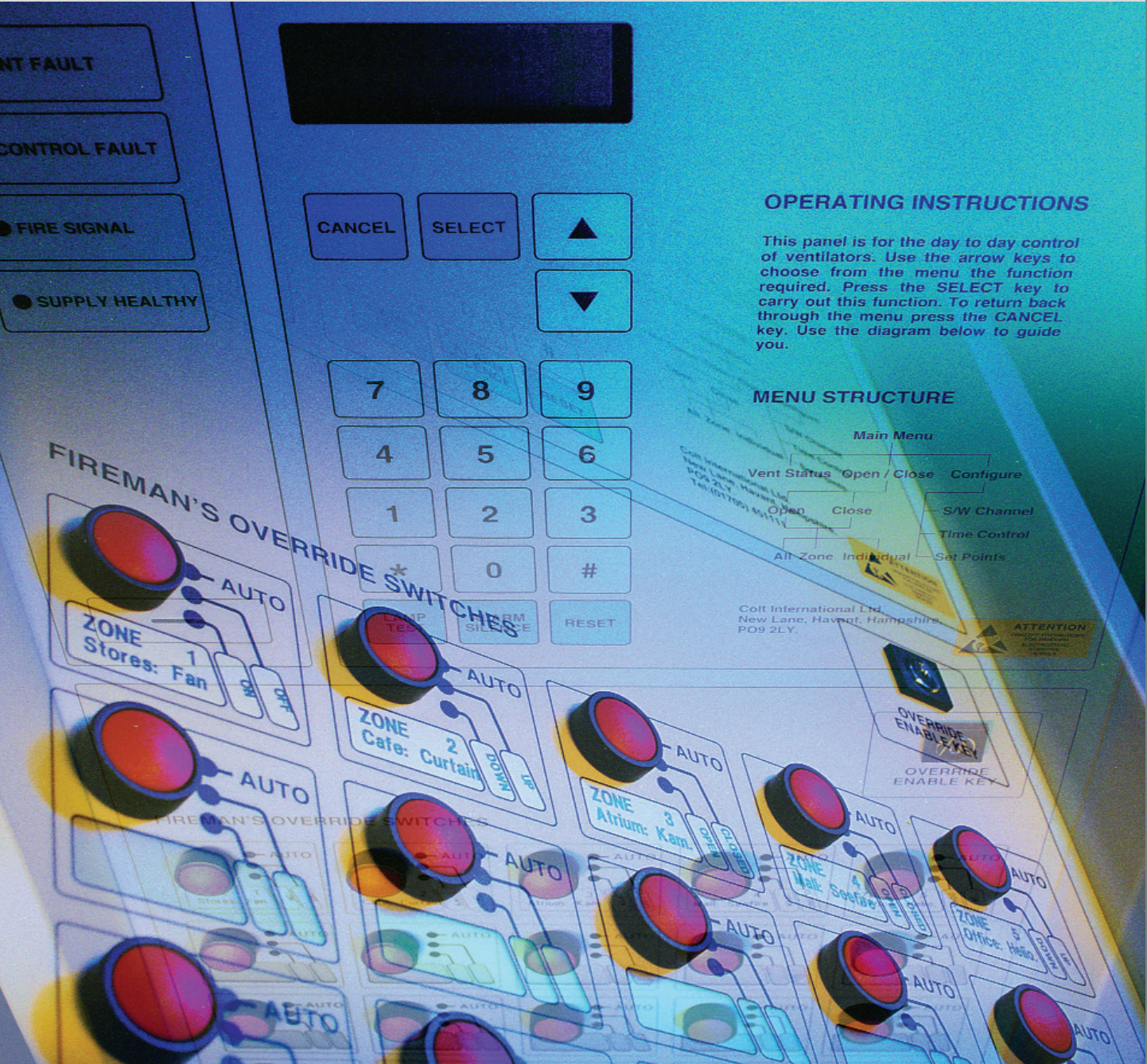


EN OPV - one per vent
 Intelligent Electronic Control System



OPERATING INSTRUCTIONS

This panel is for the day to day control of ventilators. Use the arrow keys to choose from the menu the function required. Press the SELECT key to carry out this function. To return back through the menu press the CANCEL key. Use the diagram below to guide you.

MENU STRUCTURE



Colt International Ltd,
 New Lane, Havant, Hampshire,
 PO9 2LY.

OVERRIDE ENABLE KEY

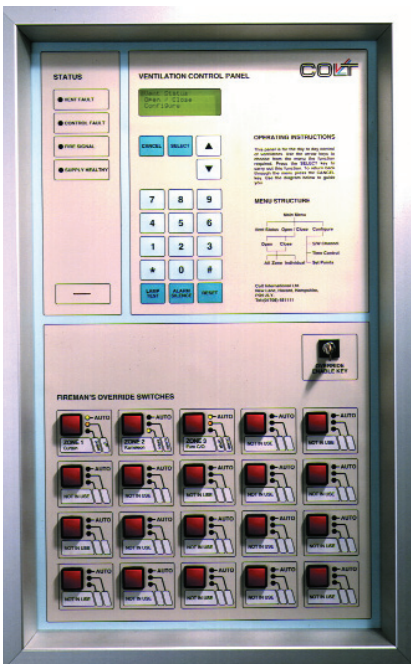
OVERRIDE ENABLE KEY

EN OPV - Introduction

INTRODUCTION

Colt EN OPV (One Per Vent) is an intelligent electronic control system, which enables all addressable equipment to be integrated within a total smoke control system.

Whilst it is primarily intended for fire safety applications, it may be designed to assume the role of a building management system controlling all manner of natural ventilators and dampers.



EN OPV Main control panel

FEATURES & BENEFITS

Proven performance

As life safety equipment, all EN OPV components meet the most stringent manufacturing and test procedures. Its communication network uses the proven and robust Apollo® protocols.

Conforming to the latest standards

EN OPV has been designed to be in compliance with PrEN 12101-9 (Smoke and heat control systems - Control Panels) and PrEN 12101-10 (Smoke and heat control systems - Power Supplies). The system will be tested and CE marked to these standards as soon as they are finally published. In the absence of any Standards in force, EN OPV complies with EN 54 (Fire Detection and Alarm Systems).

EN OPV is CE marked for compliance with the Machinery Directive, The Low Voltage Directive and the Electromagnetic Compatibility Directive.

Flexible

Each EN OPV panel can control up to 1000 addressable units and 20 control zones. With additional remote fire override panels, the number of control zones can be increased to 80. The maximum number of these remote panels is 15.

Addressable

Addressability provides accurate control. Each addressable unit can be controlled individually and as part of the specified automatic control system. The control

software is configured to suit the automatic scheme requirements and should these change, it is a simple matter of reprogramming the software accordingly.

Ventilation equipment is generally configured into operational zones. However individual control can be provided to meet specific building requirements if needed.

Complete control

Besides the ability to re-configure the system in response to alterations in the scheme, the user can operate the system manually at the control panel keypad and can amend the daily parameters such as the temperature settings and operating times.

Monitoring and diagnostics

Software and hardware watchdogs detect faults in the system and then act upon these in a logical controlled fashion. These actions extend from merely flagging up an alarm to putting the system into failsafe mode, depending on their severity. Faults are recorded in an event log. This feature obviates the potential for "system freeze".

Low maintenance

OPV systems are very low in maintenance requirements.

Minimal power requirements

230v / 1 ph / 1A load for control panel. 3A fuse recommended.

“The Colt OPV System is the most advanced smoke control system available on the market”

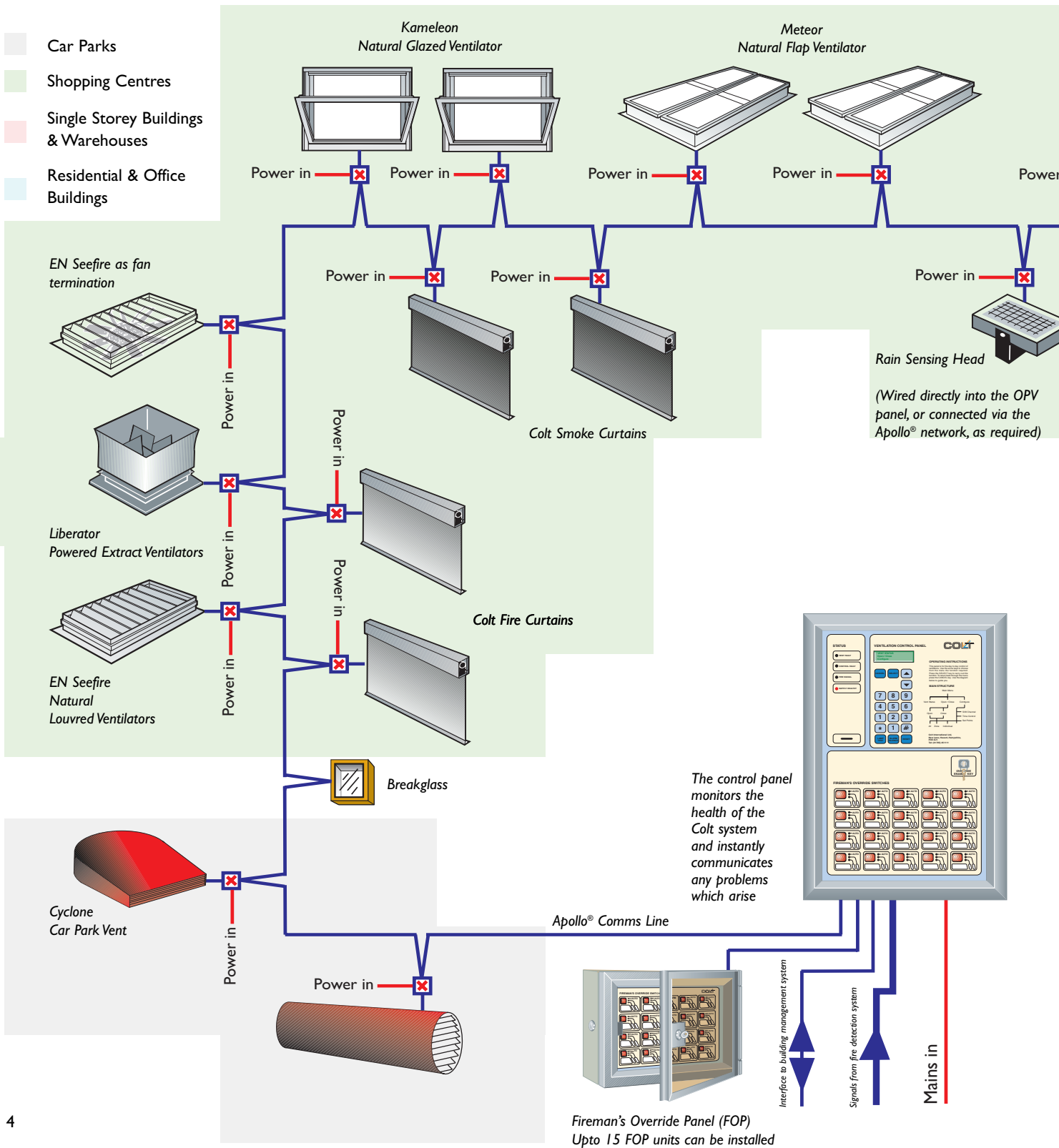
HOW IT WORKS

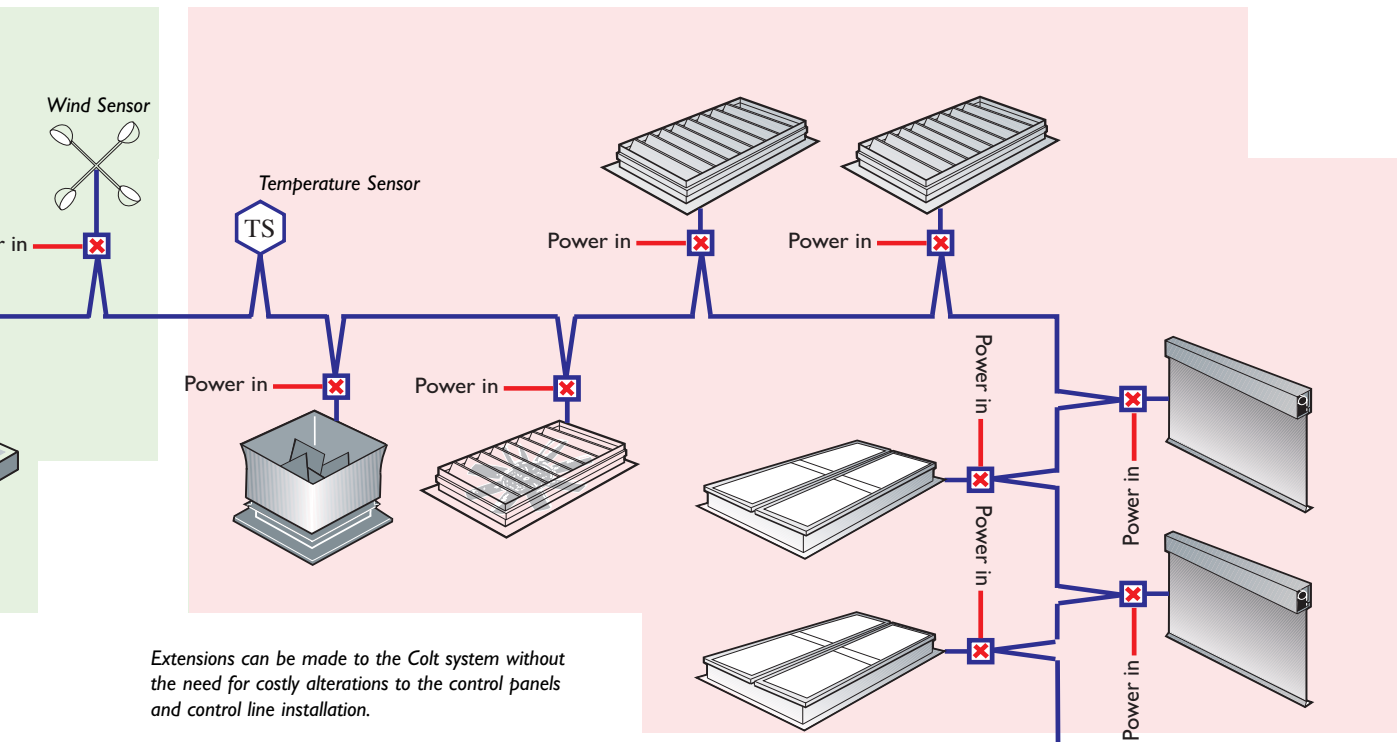
EN OPV offers two independent power sources to operate ventilators, as prescribed by EN 12101-10. During normal operation the ventilator is powered from the mains, which also charges the integrated battery back up module. The control system monitors the health of the communications network.

The system is so designed that if there is a power failure and no fire signal, all ventilators powered from the UPS move to a default operational position maintained for a minimum time period before reverting to their pre-programmed emergency position, unless power is restored. In normal circumstances the default operational position will make the ventilators close thereby reducing the prospect of water ingress. The minimum time period is determined at the design stage and varies between 12 and 72 hours depending on the number of battery packs.

EN OPV System Overview

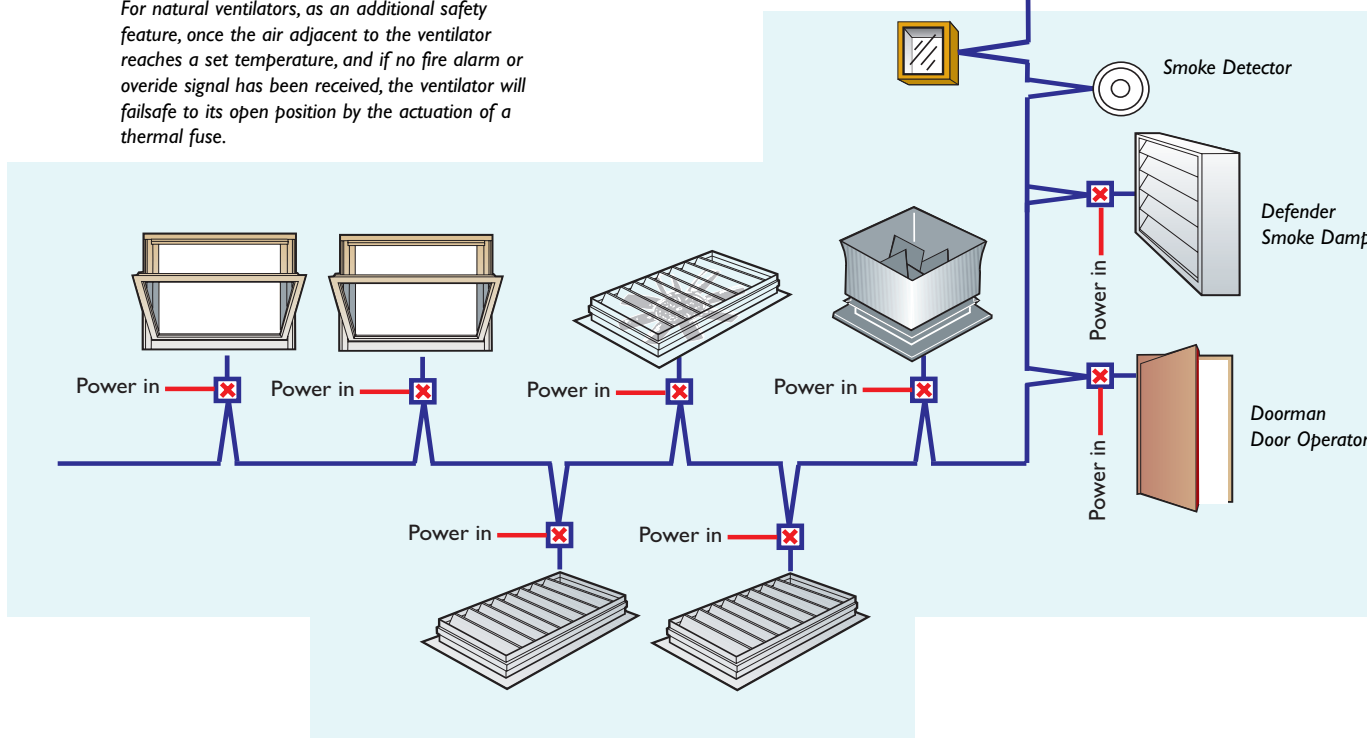
- Car Parks
- Shopping Centres
- Single Storey Buildings & Warehouses
- Residential & Office Buildings





Extensions can be made to the Colt system without the need for costly alterations to the control panels and control line installation.

For natural ventilators, as an additional safety feature, once the air adjacent to the ventilator reaches a set temperature, and if no fire alarm or override signal has been received, the ventilator will failsafe to its open position by the actuation of a thermal fuse.



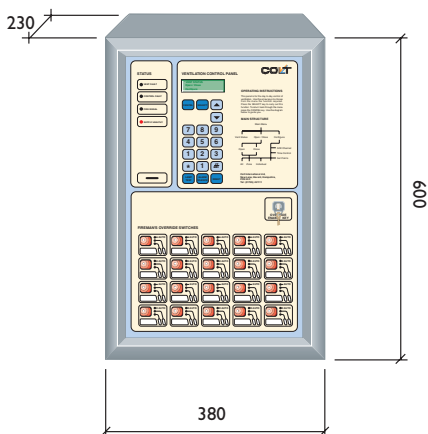
Technical Information



Colt can offer a Windows based user interface to control Colt equipment, either via a PC with a touch screen display, or via a modem or Local Area Network (LAN) to a conventional PC.

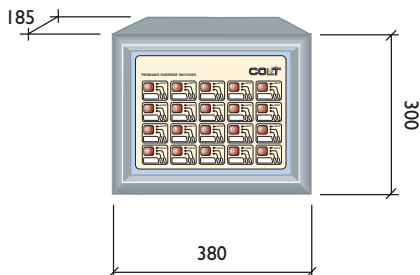
DIMENSIONS

All dimensions are in mm.



Weight - approximately 25 kg

Protection - IP 2X BS 5490



Weight - approximately 10 kg

Protection - IP 2X, If outside building
IP66 (jet proof)

SPECIFICATION

Manufacturer

Colt International Limited, New Lane,
Havant, Hampshire. PO9 2LY
Tel. 023 9245 1111
Fax. 023 9245 4220
www.coltgroup.com

Product Reference

EN OPV Control System

Description

Addressable intelligent electronic controller of smoke control systems.

Uses processor control technology for control of compatible “intelligent” smoke ventilators and other Colt smoke control products using EN OPV I/O interfaces.

The system consists of the following:

Panel LCD to provide “menu” driven control, with push button zonal FOP (fireman’s override) and auto/open/close indication, with diagnostic capability.

Compatibility with additional remote fire override panels to increase the number of control zones.

Programmable via RS 232 link, and BMS compatible, to provide both automatic emergency smoke extract ventilation, dual purpose day to day ventilation with facility for temperature / timer / rain sensor control. All set points to be adjustable at the control panel.

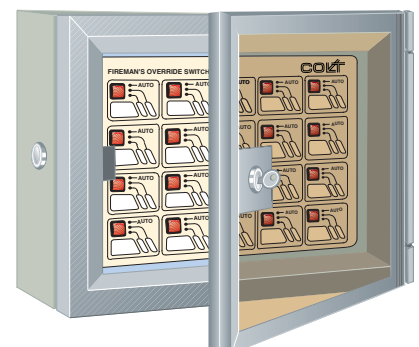
Re-programmable, to accommodate future revised or additional control zones.

All ventilators to operate simultaneously, without cascade control or time delays.

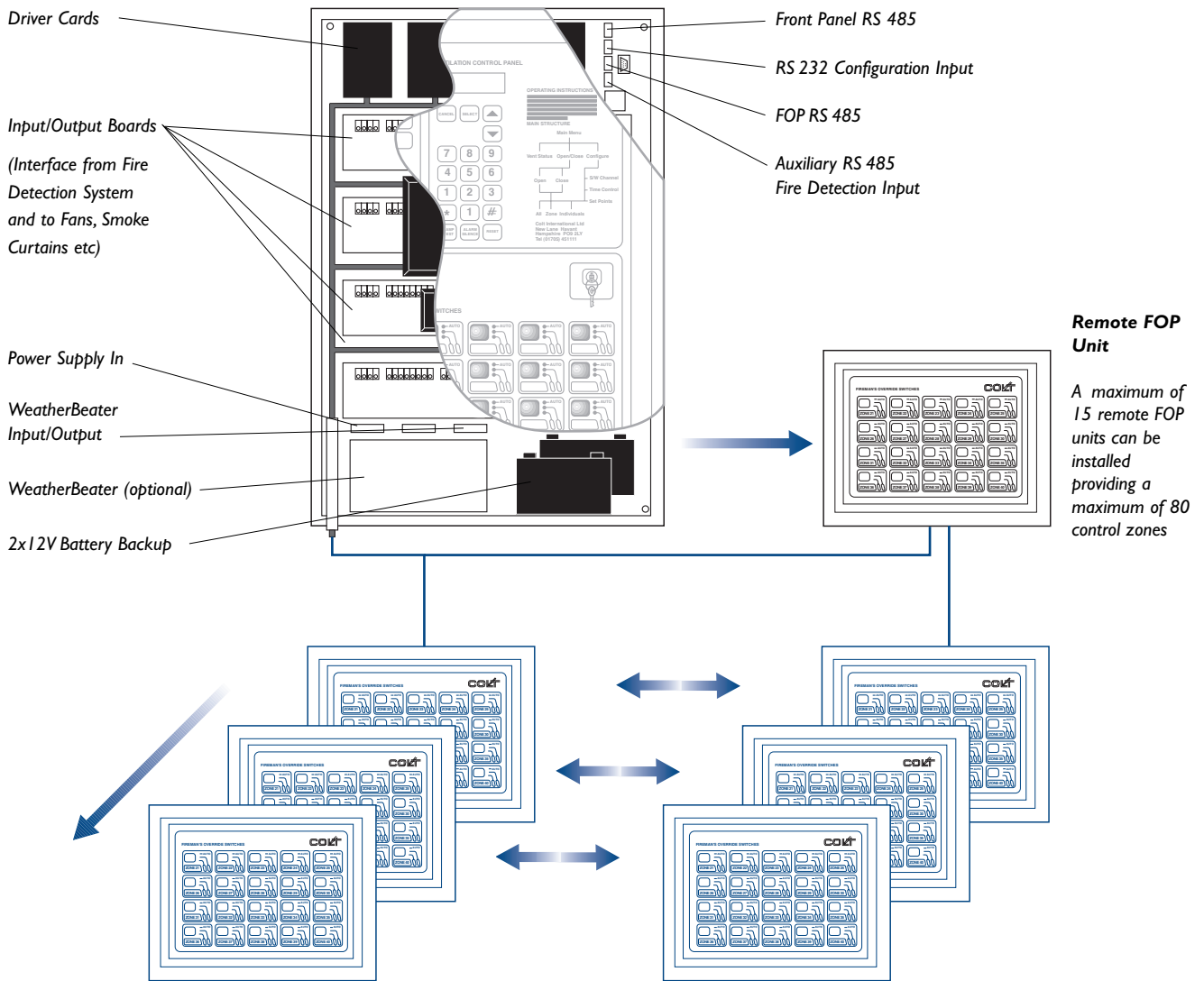
Single 230V / 1Ph / 50Hz electrical power supply to control panel with control signalling via an Apollo® network. Individual or zoned ventilators powered by a mains fed battery backup system.

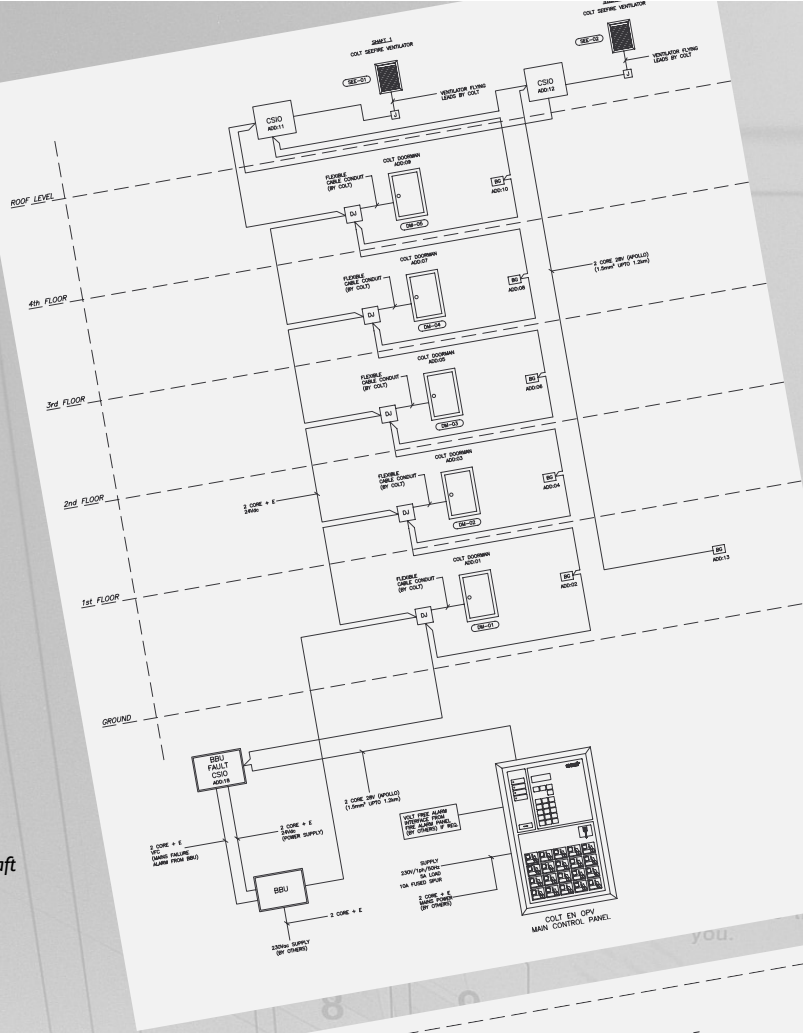
Continuous ventilator, system fault and “status” monitoring, with thermal fuses to achieve fail safe operation (to open or close).

The fireman's override panel has a lockable glass door to avoid unwanted tampering

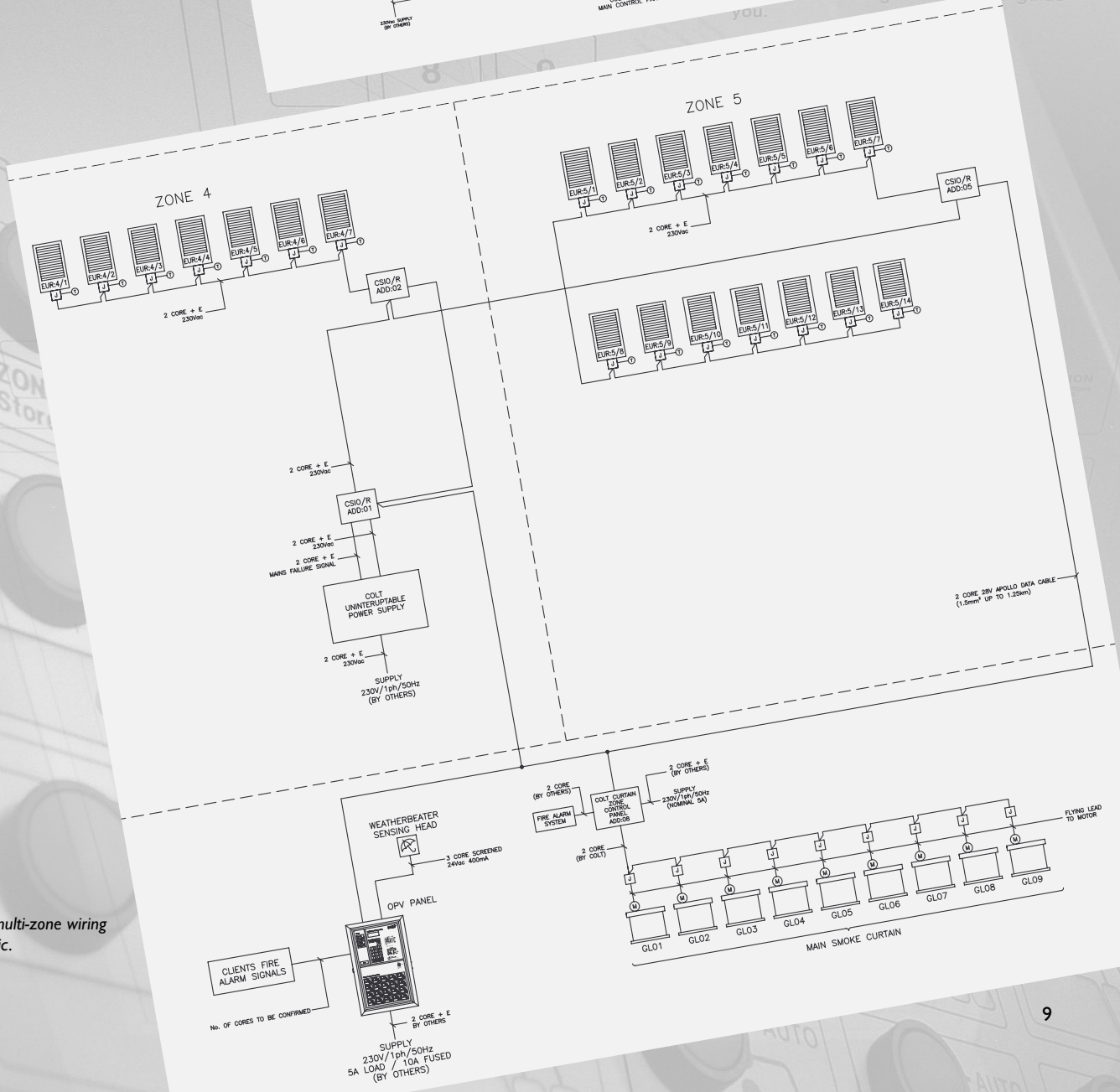


Technical Information





Typical wiring schematic for shaft ventilation.



Typical multi-zone wiring schematic.

THE COLT PACKAGE

Colt International offers the following services:

- Scheme design of all types of Smoke and Heat Exhaust Ventilation Systems (SHEVS)
- Scheme design of pressurisation systems
- Scheme design of smoke containment systems
- Provision of performance specifications
- Project management
- Supply, installation, commissioning and maintenance of systems, including all necessary controls, which will be designed to interface with others' control systems.

A free full system check will be carried out approximately 9 months after a Smoke Control System has been installed and commissioned by Colt. Besides the opportunity to check that the system is performing as designed, this will allow for any further training of local personnel that may be necessary. Assuming that this visit falls within the warranty period, any defective parts are replaced free of charge. A test certificate will be issued.

Other reasons to choose Colt:

- Colt Smoke Control systems are suited to both commercial and industrial buildings, and may be adapted to suit most architectural requirements.
- Over the years Colt has funded a large proportion of the research into smoke control, and its representatives maintain an unparalleled level of technical expertise.
- Colt's in-house research and development capability ensures that Colt smoke control systems are designed, tested and updated by Colt to meet or exceed relevant legislation and standards.
- The majority of Colt's Smoke Control systems are manufactured in the UK under BS EN ISO 9001:2000 and BS EN ISO 14001:2004.

COLT SERVICE

Part of the Colt Group of companies, Colt Service offers a comprehensive range of maintenance packages incorporating the maintenance and repair of all building services equipment including non Colt products.

Colt Service provides a 24 hour, 365 day emergency cover as standard.

MAINTENANCE

Maintenance of a smoke control system is essential. Regular maintenance protects your investment and brings peace of mind that the system will operate effectively in an emergency.

The British Standard BS 5588-12 recommends that smoke control systems should be serviced at least once a year and tested weekly.



"People feel better in Colt conditions"



Architectural Solutions
Climate Control
Smoke Control
Service and Maintenance

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