Conventional Control Panels

Key Features

From 2 to 32 zones (up to 32 detectors per zone)

EN54-2 approval by LPCB

Comprehensive end-user facilities (access level 2)

Designed & built using the latest technology for optimum performance and consistently high quality

Extensive configurable facilities for the engineer via DIL switches

4 alarm circuits as standard (4 zone panel and above)

Up to 5 fully-functional repeaters - 2-wire RS485

Range of EN54 compliant power supply modules, designed to meet the specific load requirements of each size panel

Zonal one-man test feature and sounder one-man test facility

Short Circuit to fire setting for use with older type detectors

Panel inputs for class change, evacuate, silence alarms, system reset

3 open collector outputs for evacuate, buzzer active, disablement active

Auxiliary supply output - monitored fuse

Panel expansions boards for open collector, relay and alarm outputs
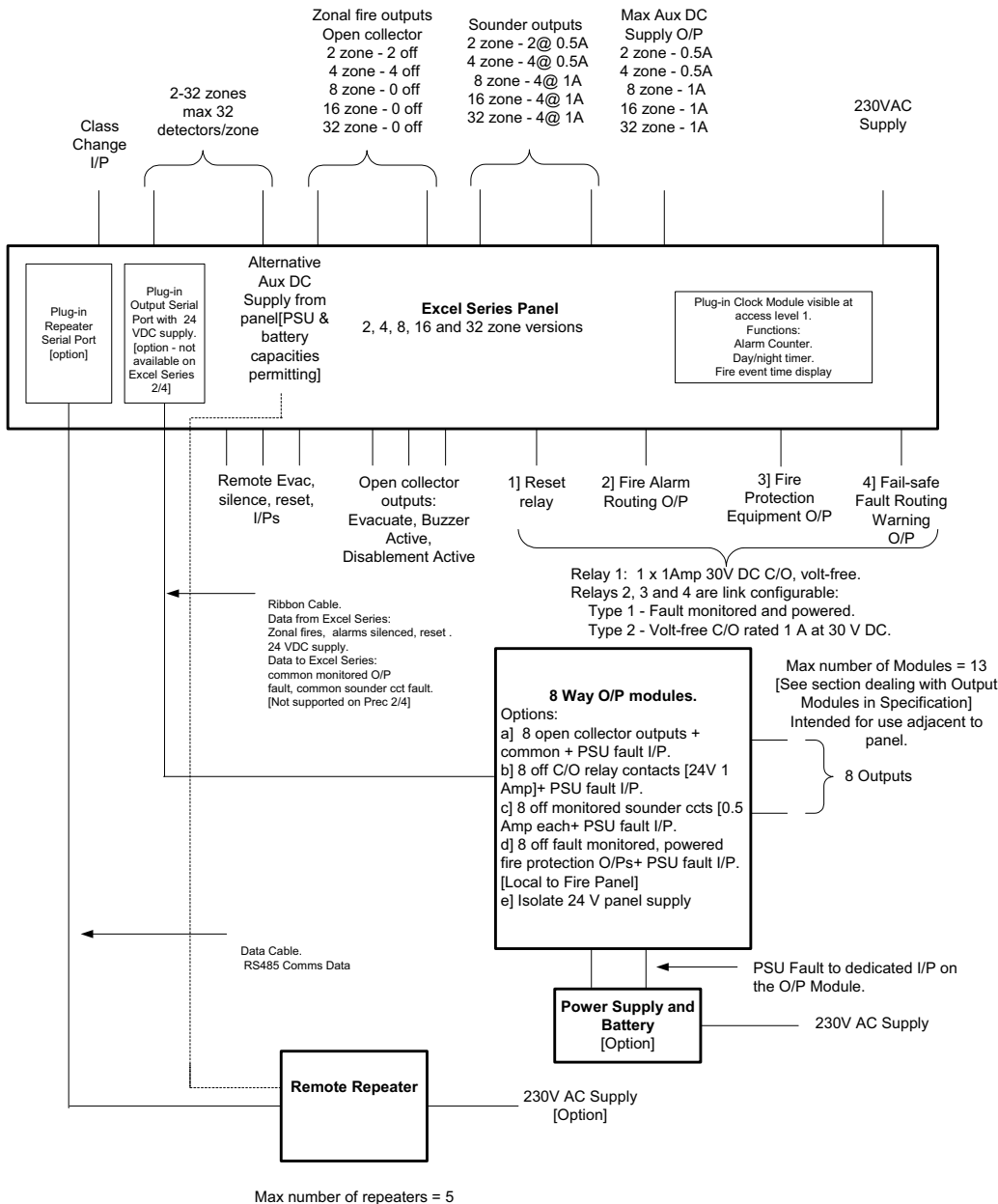
Optional timer clock/counter module

Conventional Control Panels Excel Series

Introduction

The Excel Series *range of conventional control panels is a powerful yet user-friendly series of control panels. They are designed and manufactured to a high standard and is approved by the Loss Prevention Certification Board (LPCB) to EN54-2 and EN54-4. The* Excel Series *range has earned a reputation over many years for quality and reliability and is recognised as market leader in many countries around the world. This latest generation takes advantage of the very latest technological advancements both in terms of design and manufacturing techniques to meet the exacting requirements of the latest European standards.*

Each panel in this series has extensive configuration options but is easy to install, programme and operate. This is supported by comprehensive documentation on commissioning, operation & maintenance.

The panels are designed for use with a wide range of manufacturers' detectors. A complete range of fully-flush and semi-flush bezels can be supplied for all Excel Series control panels. There is also a comprehensive range of other compatible equipment such as repeaters, relays and power supply units, available to meet customer requirements.
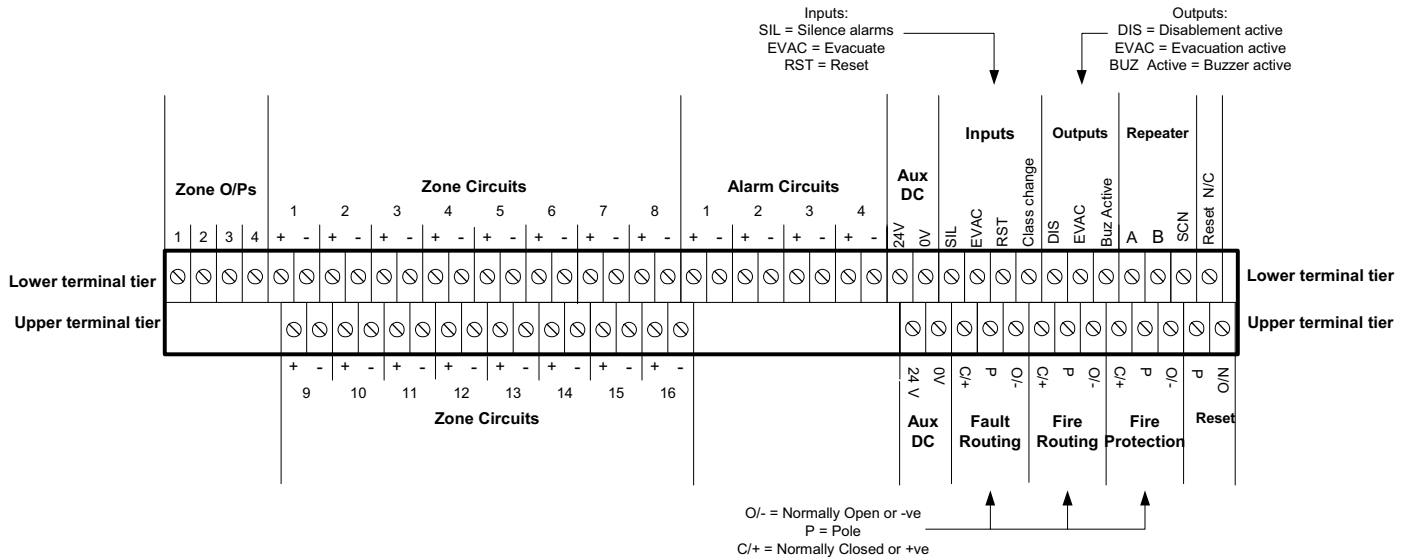
Zonal fire outputs
Open collector
2 zone - 2 off
4 zone - 4 off
8 zone - 0 off
16 zone - 0 off
32 zone - 0 off

Sounder outputs
2 zone - 2@ 0.5A
4 zone - 4@ 0.5A
8 zone - 4@ 1A
16 zone - 4@ 1A
32 zone - 4@ 1A

Max Aux DC
Supply O/P
2 zone - 0.5A
4 zone - 0.5A
8 zone - 1A
16 zone - 1A
32 zone - 1A

2-32 zones
max 32
detectors/zone

230VAC
Supply

Class
Change
I/P

Plug-in
Repeater
Serial Port
[option]

Plug-in
Output Serial
Port with 24
VDC supply.
[option - not
available on
Excel Series
2/4]

Alternative
Aux DC
Supply from
panel[PSU &
battery
capacities
permitting]

Excel Series Panel
2, 4, 8, 16 and 32 zone versions

Plug-in Clock Module visible at
access level 1.
Functions:
Alarm Counter.
Day/night timer.
Fire event time display

Remote Evac,
silence, reset,
I/Ps

Open collector
outputs:
Evacuate, Buzzer
Active,
Disablement Active

1] Reset
relay

2] Fire Alarm
Routing O/P

3] Fire
Protection
Equipment O/P

4] Fail-safe
Fault Routing
Warning
O/P

Relay 1: 1 x 1Amp 30V DC C/O, volt-free.
Relays 2, 3 and 4 are link configurable:
Type 1 - Fault monitored and powered.
Type 2 - Volt-free C/O rated 1 A at 30 V DC.

Ribbon Cable.
Data from Excel Series:
Zonal fires, alarms silenced, reset .
24 VDC supply.
Data to Excel Series:
common monitored O/P
fault, common sounder cct fault.
[Not supported on Prec 2/4]

8 Way O/P modules.
Options:
a] 8 open collector outputs +
common + PSU fault I/P.
b] 8 off C/O relay contacts [24V 1
Amp]+ PSU fault I/P.
c] 8 off monitored sounder ccts [0.5
Amp each+ PSU fault I/P.
d] 8 off fault monitored, powered
fire protection O/Ps+ PSU fault I/P.
[Local to Fire Panel]
e] Isolate 24 V panel supply

Max number of Modules = 13
[See section dealing with Output
Modules in Specification]
Intended for use adjacent to
panel.

8 Outputs

Data Cable.
RS485 Comms Data

PSU Fault to dedicated I/P on
the O/P Module.

**Power Supply and
Battery**
[Option]

230V AC Supply

Remote Repeater

230V AC Supply
[Option]

Max number of repeaters = 5

Conventional Control Panels Excel Series Facilities in Detail

Excel Series Facilities in Detail

Switching regulator power supplies with temperature — compensated battery charging	High efficiency voltage regulation. Battery-charging voltage automatically adjusted between 28.6 and 26.5 V DC over an ambient temperature range of –5 to +40 deg C.
Battery disconnect	Protects the battery from permanent damage due to over discharge by automatically disconnecting it when the battery voltage falls to 19.5V.
Class change input	Operates all sounders for up to 5 seconds.
Configurable detection zones	Simple and flexible display-based configuration process, allowing detection zones to be configured as either: o Latching/non-latching. o Delayed/non-delay. o Standard/Intrinsically Safe mode. Factory configuration: Latching, non-delay, standard [non-I.S.]
Active fault monitoring on the detection zone wiring. [Non – Intrinsically Safe applications only]	Reduces zone monitoring current and reduces the required battery capacity. Maintains total detector availability following the removal of a detector.
Selectable Zonal or General alarm sounder operation with sounders in alert or silent in adjacent zones.	Selectable via DIL switches on the motherboard. The standard sounders on the 2 and 4 zone panels can be used in General or Zonal modes. The output expansion system [available later] provides additional sounders circuits for General or Zonal use on the 8, 16 and 32 zone panels.
Configurable Fire Routing, Fire Protection and Fault Routing output relays	Configuration links on the motherboard allow each relay to be individually selected to the EN54 powered/fault monitored mode or volt –free changeover. Factory configuration - "EN54 Mode".
Reset Relay	A volt-free changeover contact operating for 10 seconds on panel fire reset.
Auxiliary 24 V DC power supply output	Protected by an electronic fuse and reset by operating reset switch. Operation of the fuse is indicated on the display.
Open collector outputs	o Evacuate Active. o Buzzer Active. o Disablement Active. o Zonal fire for each zone up to zone 4. Zonal output expansion on 8-32 zone versions [availability tba].
Remote inputs	Remote evacuation. Silence alarms. Reset.
Earth Fault monitoring	Can be disabled via link on the motherboard.
Zone/Output disablement feature	Each zone along with the Fire Routing, Fire Protection, Fault Routing and sounder circuits can be independently disabled/enabled.
One Man Zone Test	Each zone can be independently set to the One Man test condition. Sounders can be configured to operate briefly to confirm the fire panel has detected the test fire or the test may be configured for no sounder operation.
One Man Sounder Test	Operates the sounders intermittently.
Configurable Delay Mode Facility	Flexible system allowing: o Any zone to be configured as a delay zone. o Single or two-stage delay. o 1 to 9 minute delay [for single stage or second stage of 2-stage delay]. o Selection of the output to be delayed [Fire Routing, Fire Protection, Sounders] – can be any combination.
Other configuration features	o "Short circuit to fire" for use with older type detectors o To prevent the Fire Protection output operating from a fire condition on a "Non-Latch" zone. o To inhibit the silencing and resetting of the panel for 3 minutes following the occurrence of a fire alarm. o To set the sounders to operate only when the panel is in the Evacuate condition. o To inhibit the resetting of the fire alarm condition until the alarm sounders have been silenced. o To disable the panel buzzer. o To select latching fault mode where all fault conditions latch until the panel is manually reset. o Restore default configuration of zones and outputs to be delayed.
Repeater panels	Supporting up to 5 repeaters via RS485 comms.

Conventional Control Panels Excel Series

Typical Termination Arrangement (Excel Series 16 zone)

Inputs:
SIL = Silence alarms
EVAC = Evacuate
RST = Reset

Outputs:
DIS = Disablement active
EVAC = Evacuation active
BUZ Active = Buzzer active

O/- = Normally Open or -ve
P = Pole
C/+ = Normally Closed or +ve

Optional Enhancements

4 options for 8-way output modules (See schematic diagram)

Semi-flush bezels

Fully-flush bezels

Matching cabinets to house enhancement boards and power supplies

Matching style repeater panels (Locally and panel powered)

Timer clock/counter module, factory set as either day/night and alarm counter or fire alarm clock display

Ordering Details

Part Number	Description
2605/100	Excel Series 2 zone panel
2605/101	Excel Series 4 zone panel
2605/102	Excel Series 8 zone panel
2605/103	Excel Series 16 zone panel
2605/104	Excel Series 32 zone panel