

# Precept EN

## 2, 4, 8, 16 & 32 Zone Conventional Panels



### Overview

The Precept EN range of conventional control panels are powerful yet user friendly. They are designed and manufactured to a high standard and are approved by LPCB to EN54 parts 2 & 4.

These panels are available in 2,4,8,16 & 32 Zone versions along with suitable repeaters for all models. The 8 - 32 Zone panel models are capable of driving any combination of 8 channel output expansion boards (relays, alarm circuits and open collector 0v outputs) which can be set to be zonally activated or common output modes.

Each panel has extensive configuration options but remains easy to install, programme and operate. This is supported by comprehensive documentation on commissioning, operating and maintenance. The panels are designed to work with a wide range of manufacturers detectors and are able to cope with many types of installation (new or retrofit).

### Hardware

- Sturdy 1.5mm mild steel enclosure with textured, off white, paint finish (RAL 7035 as standard)
- Top knockouts for 20mm cable glands, rear oval cable knockouts and one knockout provided at bottom of panel
- Quality fibreglass circuit boards, surface mount components
- Display mounted controls access keyswitch
- Generous internal clearances for cabling and glanding
- 2,4,8 & 16 Zone models house up to 12Ah SLA battery set. 32 zone houses up to 18Ah set
- Motherboard & power supply/transformer mounted on easily removable chassis for ease of installation
- Text inserts used for zone descriptions
- Insertable text option for controls & panel indications allowing easier multilingual support

### Ancillary Item Details

- Output expansion enclosure to house additional 8 way output expansion boards (C1633 1634 & 1635 types) available in two sizes with or without PSU
- Semi flushing bezels available for all models including repeaters
- Fully flush bezels available in painted, stainless steel (brushed or polished) and brass finish
- 8/16 zone panels available in large size enclosure allowing two expansion boards to be fitted
- Extender plate available that allows 2 x C1633 boards to be fitted in a standard size panel

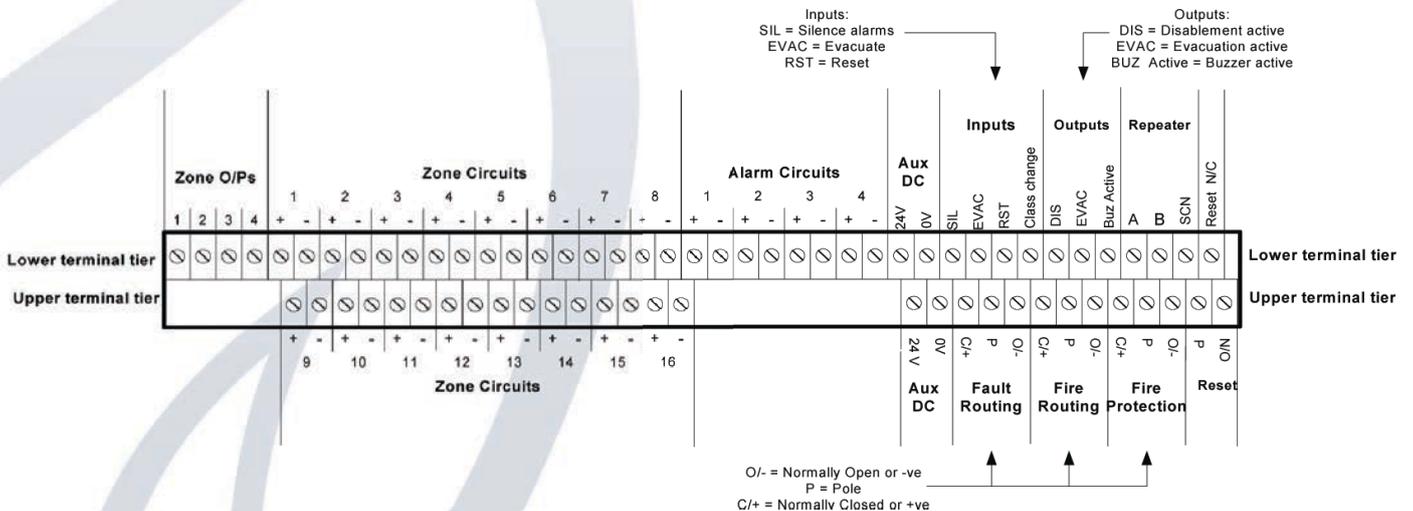
# A new class of Fire Detection

## Panel Specifications

FUNCTION	2 Zone	4 Zone	8 Zone	16 Zone	32 Zone
Mains Supply (tolerance +10 / -15%)	230V ac				
Max. Power Consumption	85 W	85 W	165 W	165 W	240 W
Mains Fuse (BEAB Approved Type)	1A 20mm	1A 20mm	3.15A 20mm	3.15A 20mm	3.15A 20mm
Battery Fuse	2A 20mm	2A 20mm	5A 20mm	5A 20mm	6.15A 20mm
Max. PSU/Batt. Charger Output	1.5 A	1.5 A	3 A	3 A	5 A
Sounder Circuits (24V nominal)	2 @ 500 mA	4 @ 500 mA	4 @ 1 A	4 @ 1 A	4 @ 1 A
Aux DC Output (24V nominal)	500 mA	500 mA	1 A	1 A	1 A
Max. Size Battery Space	2 x 12 Ah	2 x 18 Ah			
Mains Fail Batt. Current (no load)	45 mA	45 mA	45 mA	45 mA	55 mA
As Above - 1 Zone In Alarm	80 mA	80 mA	80 mA	80 mA	90 mA
Mains Failed Voltage Output	19.2 - 27V				
Repeater Panel Option	Yes	Yes	Yes	Yes	Yes
Output Expansion Capability	No	No	Yes	Yes	Yes
Standard Zonal Outputs	Zones 1-2	Zones 1-4	Zones 1-4	Zones 1-4	Zones 1-4
Operating Temperature	-5° to 40°C				
Operating Humidity	5% to 95%				
Panel Dimensions (mm W x H x D)	325 x 370 x 126	400 x 441 x 131			
Native Panel Weight (no batteries)	6.2 Kg	6.2 Kg	7.1 Kg	7.1 Kg	10.25 Kg
Enclosure Colour	RAL 7035 Lt. Grey				
C1635 8 Way Sounder Module	N/A	N/A	8 x 500 mA	8 x 500 mA	8 x 500 mA

NOTE: Although the Aux DC and Sounder outputs are rated/fused at the above stated values it should be noted that the overall power drawn by ancillary equipment must not exceed the maximum overall PSU output.

## Typical Terminal Arrangement (Precept EN16 Zone)



## Repeater Panel Specifications

FUNCTION	8 Zone Repeater*	16 Zone Repeater	32 Zone Repeater
Mains Supply (tolerance +10 / -15%)	230V ac	230V ac	230V ac
Mains Fuse (BEAB Approved Type)	1A 20mm	1A 20mm	1A 20mm
Battery Fuse	1A 20mm	1A 20mm	1A 20mm
Max. Battery Charger Output	1.5 A	1.5 A	1.5 A
Max. Power Consumption	85 W	85 W	85 W
Max. Size Battery Space	2 x 12V 12 Ah	2 x 12V 12 Ah	2 x 12V 18 Ah
Mains Fail Batt. Current	40 mA	40 mA	40 mA
As Above - With 1 Zone In Alarm	75 mA	75 mA	75 mA
RS485 Comms. Cable Type	3 Core + Screen	3 Core + Screen	3 Core + Screen
DC Supply Option (Non EN Approved)	Yes - 24V	Yes - 24V	Yes - 24V
Panel Dimensions (mm W x H x D)	325 x 370 x 126	325 x 370 x 126	400 x 441 x 131
Native Weight	6.2 Kg	6.2 Kg	7.6 Kg
Enclosure Colour	RAL 7035 Lt. Grey	RAL 7035 Lt. Grey	RAL 7035 Lt. Grey

\* 8 Zone Repeater Covers 2,4 & 8 Zone Panels

## Panels

**508.032.701** Precept EN2 Zone Panel  
**508.032.702** Precept EN4 Zone Panel  
**508.032.703** Precept EN8 Zone Panel  
**508.032.704** Precept EN16 Zone Panel  
**508.032.706** Precept EN32 Zone Panel  
**2605105** Precept EN8 c/w Large Enc.  
**2605106** Precept EN16 c/w Large Enc.

**508.032.707** Precept EN8 AC Repeater  
**508.032.708** Precept EN16 AC Repeater  
**508.032.709** Precept EN32 AC Repeater

**508.032.710** Precept EN8 DC Repeater  
**508.032.711** Precept EN16 DC Repeater  
**508.032.712** Precept EN32 DC Repeater

**2605061** C1631 Repeater Interface  
**2605063** C1633 LED O/C Driver PCB  
**2605064** C1634 Relay Output PCB  
**2605065** C1635 Alarm/Mon O/P PCB  
**2605060** C1630 Output Driver Interface  
**2100165** C1633 Extender Plate

C1631 required in main panel to drive repeaters.

C1630 required in main panel to drive output boards (8 - 32 Zone).

Panels and repeaters are also available with text insertable display membranes allowing easier multilingual support. Please contact us for part numbers if required.

**2605115** 8 Zone DC Repeater  
**2605116** 16 Zone DC Repeater  
**2605117** 32 Zone DC Repeater

**2605326** 4 Way Expansion Enclosure  
**2605327** 4 Way Expansion Enc. c/w PSU  
**2605328** 5 Way Expansion Enclosure  
**2605329** 5 Way Expansion Enc. c/w PSU

**2603011** Semi Flush Bezel for 2 - 16 Zone  
**2603012** Semi Flush Bezel for 32 Zone

**2603060** Flush Painted Bezel 2 - 16 Zone  
**2603061** Flush S/Steel Bezel 2 - 16 Zone  
**2603062** Flush Brass Bezel 2 - 16 Zone  
**2603065** Flush Painted Bezel 32 Zone  
**2603066** Flush S/Steel Bezel 32 Zone  
**2603067** Flush Brass Bezel 32 Zone

Bezels are same as above for their respective repeater panels and expansion boxes. The Stainless Steel bezels are available in brushed or polished (shiny) finish - please specify when ordering. The semi flush and painted bezels are same colour as the panel as standard.

Note that the fully flush bezels usually have a 4 week manufacturing lead time.

4 way expansion box matches size of 2 - 16 zone panels and 5 way expansion box matches size of 32 zone panel.

# A new class of Fire Detection

## Technical Features

### Detection

Designed to work with FireClass conventional detectors (up to 32 detectors per zone).

2,4,8,16 & 32 Zone versions available - fully fault monitored.

Zone activation resistance typically 470 or 680 Ohms eg. callpoint or input signal.

22 uF Capacitor zone EOL monitoring.

IS (Intrinsically Safe) zones selectable - In this mode the EOL device is changed to a 10K resistor.

NLZ (Non Latching Zones) selectable - output relay disablement option for this function.

Short circuit activated zones selectable.

'Indication only' zone mode option.

### Sounder O/P

4 fully monitored sounder (bell/alarm) circuits 24V active (2 Zone panel has 2 circuits).

### Inputs

Remote inputs for SILENCE, EVAC, RESET, CLASS CHANGE (0V applied activation).

### Outputs

Monitored relay outputs for FAULT ROUTING, FIRE ROUTING and FIRE PROTECTION (configurable to volt free).

Open Collector (0V switched) outputs for zones 1-4, disablement active, evacuate and buzzer active.

Volt free reset relay - active for 10 Seconds on panel reset.

Add-on 8 way expansion modules (sounders, LED driver and Volt free relays) for 8 - 32 Zone panels. 1 x 8 way board can be fitted in standard panel and 2 x 8 way boards can be fitted in the large 8/16 Zone panel enclosures. Separate expansion boxes are available for increased capacity.

Auxiliary 24V DC output (electronically fused – clears on reset).

### User Controls

Controls Enable key switch, Silence/Resound alarms, Evacuate, Reset System, Disable and Enable, Menu Up and Down, Select On/Off, Test Display, Silence Buzzer, Delay On/Off and Override, Test.

### Indicators

Power Supply On, Power supply fault, Zone fire, Fault and Disabled, Common Fire, Fire routing active, System fault, General Fault, Earth fault, Fuse failed, Repeater fault, Sounder fault/disabled, Sounder test, Fire protection output fault/disabled, Fire routing fault/disabled, Fault routing fault/disabled, Test mode active, Disablement, Buzzer silenced, Delay on/off/override, Select mode active, Evacuate.

### Panel Functions

Extensive configuration and programming options to cater for individual requirements. Engineer can programme the many settings via use of internal dip switches combined with front panel controls.

Numerous disablement options (sounder circuits, zones, relays, panel buzzer and earth fault monitoring).

One man zone and sounder test modes (individual zones can be selected).

Delay mode options - sounders and relay outputs can be disabled for a 1-9 minute time period if certain programmed zones are activated (not EN54 compliant in this mode).

2 stage delay mode - panel will delay sounding alarms etc. for 2 minutes, if acknowledged at the panel within that period then the delay mode reverts to continue remaining overall pre-programmed minutes.

Zonal or general alarm options with continuous or pulsed 'non-alarm zone' sounder modes.

Clock/timer module option.

### Power

Power supply 230V ac 50/60 Hz. All mains voltage inputs have an operating tolerance of between +10% and -15% of stated value. Repeaters with DC supply will operate from 18V up to 31.2V.

Full monitoring of all power supplies.

Fully monitored and temperature compensated battery charger output for set of 2 SLA (Sealed Lead Acid) batteries for 24V DC Battery saver - disconnect function if batteries drop below 19.5V during mains power failure.

Earth fault monitoring.

### Power

8, 16 or 32 zone repeaters available (8 Zone is used for 2 & 4 Zone panels).

Repeaters available in either AC or DC types. (DC repeater models are not EN54 approved by virtue of their operation).

RS485 3 core + screen data cable used for repeater comms wiring (4 core if power derived from panel).

Up to 5 repeaters maximum per panel.

C1631 interface required to be fitted in panel in order to drive its compliment of repeaters.

### Power

Inhibit fire protection relay when using NLZ, Latching fault indication Delay ability to silence/reset for 3 minutes, Alarm circuit activation only on evacuate, Compulsory 'Silence alarms' before reset Silent zone test, Buzzer disable, 'Day/night' timer delay mode. Requires clock.