

## Loop Powered Beacon

An addressable visual warning device

PDS201-0113

### Features:

The Beacon:

- Uses high intensity LED's
- Automatic LED operational test when the beacon is activated. If a defect is detected a fault signal is relayed back to the FACP
- Synchronisation of multiple beacons as well as Ampac sounders (flashes once a second)
- Is designed for indoor use
- Can be locked to its base
- Has a wide angle of visibility
- Is loop-powered
- Has a low current consumption - just 3mA
- Is polarity insensitive
- Up to 20 beacons may be fitted between standard XP95 isolators or isolating bases depending on the loop loading
- Remote LED output - can match facility offered by an XP95 detector



*Loop-powered beacon clipped into the an integrated base sounder*

### Description

The Ampac **Loop-Powered Beacon** is a local area beacon designed for indoor use and has been further developed as a supplement to sounders used in situations where there is a risk that a sounder may not be heard. These situations include but are not limited to areas with:

- a high degree of background noise
- occupants that possibly may have a hearing impediment

The beacon can also be used in environments where a 'staff alarm' is preferable to sounders, for example hospitals, TV / radio stations or cinemas.

### Technical

The beacon must be connected to detection systems using the XP95 or Discovery protocol.

### Standard Mounting

The beacon is fitted to any XP95 or Discovery base and would normally be wall mounted. Alternatively it can be used in combination with the Ampac Integrated Base Sounder.

### Alternative Sounder Monitoring

By fitting the beacon to a mounting base which in turn is fitted to the Integrated Base Sounder the devices can be controlled separately and synchronised with each other.



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### Specifications

<b>Operating voltage</b>	17 to 28VDC
<b>Quiescent Current</b>	150µA @ 24VDC
<b>Switch-on surge</b>	1mA for 100ms
<b>Beacon operated</b>	3mA
<b>Flash rate</b>	1Hz
<b>Light output</b>	1.75 ± 0.5 candela
<b>IP rating</b>	42
<b>Humidity (no condensation)</b>	0 to 95%
<b>Operating temperature</b>	-20°C to +60°C
<b>Dimensions ( mm )</b>	115D x 38H
<b>Weight</b>	140g
<b>Order Code</b>	201-0113

Note: Up to 20 beacons may be fitted between standard XP95 isolators or isolating bases. A loop loading calculation should be made in order to determine the exact number in a loop.

### Protocol Bit Usage

The beacon responds to interrogation by the control panel and is switched by means of the output (forward command) bits. The function of the output bits is given in the following table:

Output Bit Settings			Beacon/Remote LED action
2	1	0	
0	0	0	Beacon OFF, Remote LED OFF (if connected)
0	0	1	Beacon ON, Remote LED ON (if connected)
0	1	0	Beacon ON, Remote LED OFF (if connected)
0	1	1	Beacon ON, Remote LED ON (if connected)

NB Output bit 2 is not used

Input bits confirm the receipt of the corresponding output bits.

### Troubleshooting

Before investigating individual units for faults, it is important to check the system wiring is fault free.

Pay particular attention to earth faults on data loops as they may cause communication errors.

If an XP95 test set is used to test the beacon please be aware that constant interrogation of the device will cause a higher than normal flash rate and an analogue value of 16. To avoid this, operate the beacon and exit the single address test.

### Fault Finding

Problem	Possible Cause
No response or missing	Incorrect address setting Incorrect loop wiring Too many beacons between isolators
Beacon fails to operate	Control panel has incorrect cause and effect programming
Fault reported when beacon operating	Beacon LED failure

Note: the beacon may continue to flash for a short period after receipt of a valid command to turn off

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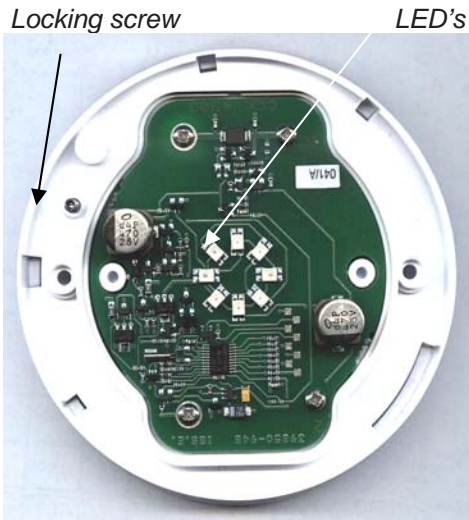
PDS201-0113

### Address Setting

The address of the beacon is set using the XPERT card

#### XPERT card addressing for XP95 / Discovery

Select the desired address and remove the pips indicated in black with a small screwdriver.



Beacon internal layout



Beacon and Base

### Wiring Detail

The Loop-powered Beacon is polarity insensitive. Connect the loop cables to the base or to the ancillary sounder, observing polarity.

The base wiring terminals accept solid or stranded cables up to 2.5mm<sup>2</sup>.

**Note:** the Loop-powered Beacon is not suitable for outdoor use.