

Category C Loop Powered VADs



Product overview

Product Type	Visual Alarm Device
Part No.	55000-740 (C-3-15, red body)
	55000-742 (C-3-8.5, red body)
	55000-743 (C-3-15, white body)
	55000-745 (C-3-8.5, white body)
Digital Communication Protocol	XP95®, Discovery® and CoreProtocol® compatible

Product information

The addressable Loop Powered Visual Alarm Devices (VADs) have been developed as primary or supplementary alarm devices. VADs may be used in situations where there is a risk that sounders will not be heard. It might also be required where deaf or hearing impaired persons may be present.

Special Instructions: Product requires a specialist installation method - please purchase kit - 55000-747APO (C-3-15, red body) or 55000-748APO (C-3-15, white body) and refer to IG:39215-365 for further information.

- Uses high intensity LED
- EN 54-23 Compliant Category C VAD
- Coverage C-3-8.5 and C-3-15
- Flash rate 0.5Hz
- Fault signal if LED check failed
- Locking mechanism (grub screw)
- Wide angle of visibility
- Synchronised flash rates with the Apollo Protocol

Technical data

Coverage class	C-3-8.5 and C-3-15
Flash colour	White
Flash rate	0.5Hz
Supply voltage (Vmin–Vmax)	17-28V dc (polarity sensitive)
Digital communication protocol	XP95, Discovery and CoreProtocol compatible
Quiescent	280µA
Power-up surge current	1.5mA
Alarm current (LED on)	12.0mA (C-3-8.5 Coverage class) 29.9mA (C-3-15 Coverage class)
Operating temperature*	-10°C to +55°C
Humidity	0% to 95% RH (no condensation or icing)
Vibration, impact & shock	EN 54-23
IP Rating (Tested and approved by TRaC Global Limited testing laboratory)	IP54 (when used with Part No. 45681-210, Part No. 45681-284 or Part No. SA5000-200 Mounting Base) IP55 (when using the Deckhead Mounting Box Part No. 45681-217)
Standards and approvals	EN 54-23, CPR, LPCB and VdS
Dimensions	Part No. 55000-740 & 55000-743: 100mm diameter x 48mm height (56mm height with XPERT 7 Mounting Base) see Figure 2 Part No. 55000-742 and 55000-745: 100mm diameter x 50mm height (58mm height with XPERT 7 Mounting Base) see Figure 3
Weight	105g
<i>* Tested by Apollo Fire Detectors Limited to -40°C to +70°C</i>	

Application

The Loop Powered Addressable Visual Alarm Device is a local-area VAD designed for indoor use.

The VAD can be connected to systems with XP95, Discovery or Soteria® devices on the loop.

The Loop Powered VAD can be fitted to any XPERT 7 or XPERT 8 Mounting Base.

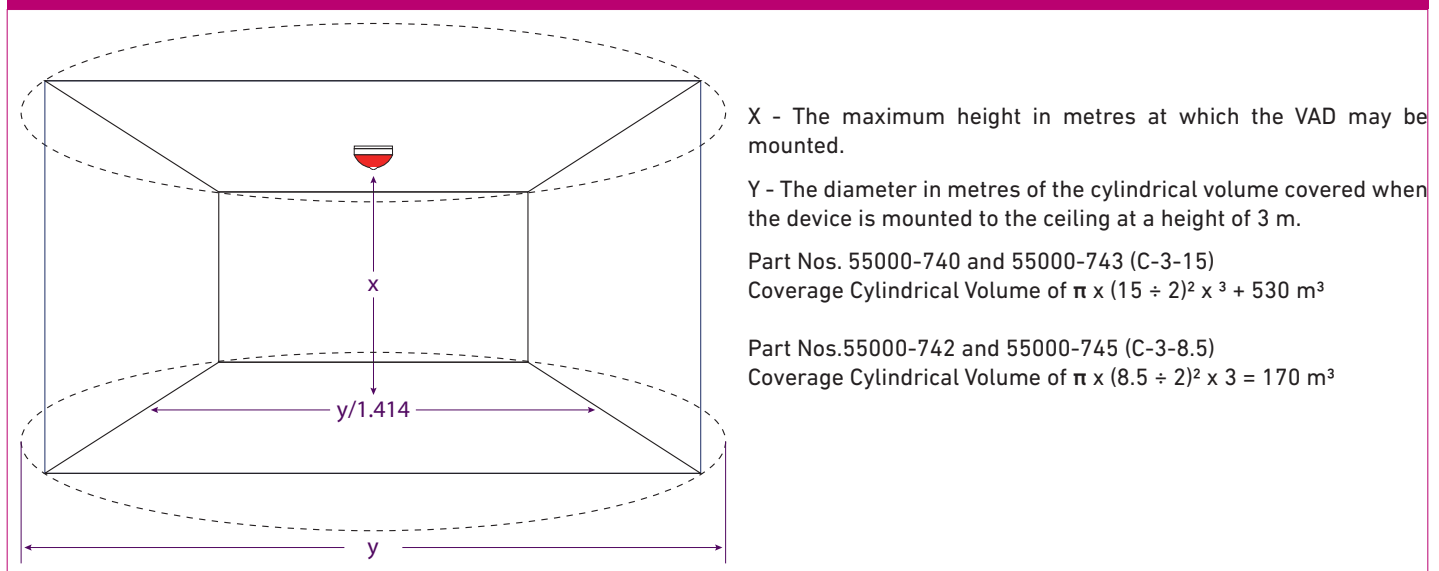
When fitted to an Ancillary Base Sounder (Part No. 45681-276), the sounder activation will be controlled by the VAD.

When fitted to an Integrated Base Sounder the devices can be controlled separately via their individual address.

Figure 1 shows the coverage volume for the ceiling category VAD with example calculations.

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Figure 1 Category C Loop Powered VAD with XPERT 7 Mounting Base coverage area and mounting instructions



X - The maximum height in metres at which the VAD may be mounted.

Y - The diameter in metres of the cylindrical volume covered when the device is mounted to the ceiling at a height of 3 m.

Part Nos. 55000-740 and 55000-743 (C-3-15)
Coverage Cylindrical Volume of $\pi \times (15 \div 2)^2 \times 3 + 530 \text{ m}^3$

Part Nos. 55000-742 and 55000-745 (C-3-8.5)
Coverage Cylindrical Volume of $\pi \times (8.5 \div 2)^2 \times 3 = 170 \text{ m}^3$

Electrical Considerations

The VAD is loop powered and requires no external power supply. It operates at 17–28 V dc.

Table 1 Digital communications protocol compatibility

Protocol	Device behaviour
XP95/Discovery†	S90
CoreProtocol†	S90

† Fire control panel dependent

Loop Loading

Each VAD must be fitted between Apollo 20D isolators (see PP2090 for a list of 20D isolators). The maximum number of devices is dependent on the devices individual coverage class.

In order to determine the exact number in a loop please use the 'Loop Calculator' available as a free download on the Apollo website: www.apollo-fire.co.uk

Addressing

The Loop Powered VAD must be assigned an address by coding the XPERT card.

Mechanical Construction

The case of the VAD is made of white or red self extinguishing polycarbonate with stainless steel contacts.

EMC Directive 2014/30/EU

The VAD complies with the essential requirements of the EMC Directive 2014/30/EU, provided that it is used as described in this data sheet.

A copy of the Declaration of Conformity is available from the Apollo website: www.apollo-fire.co.uk

Conformity of the VAD with the EMC Directive, does not confer compliance with the directive on any apparatus or systems connected to it.

Construction Products Regulation (EU) 305/2011

The VAD complies with the essential requirements of the Construction Products Regulation (EU) 305/2011.

A copy of the Declaration of Performance is available from the Apollo website: www.apollo-fire.co.uk

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Figure 2 Category C Loop Powered VAD (C-3-15) with XPERT 7 Mounting Base dimensional drawing

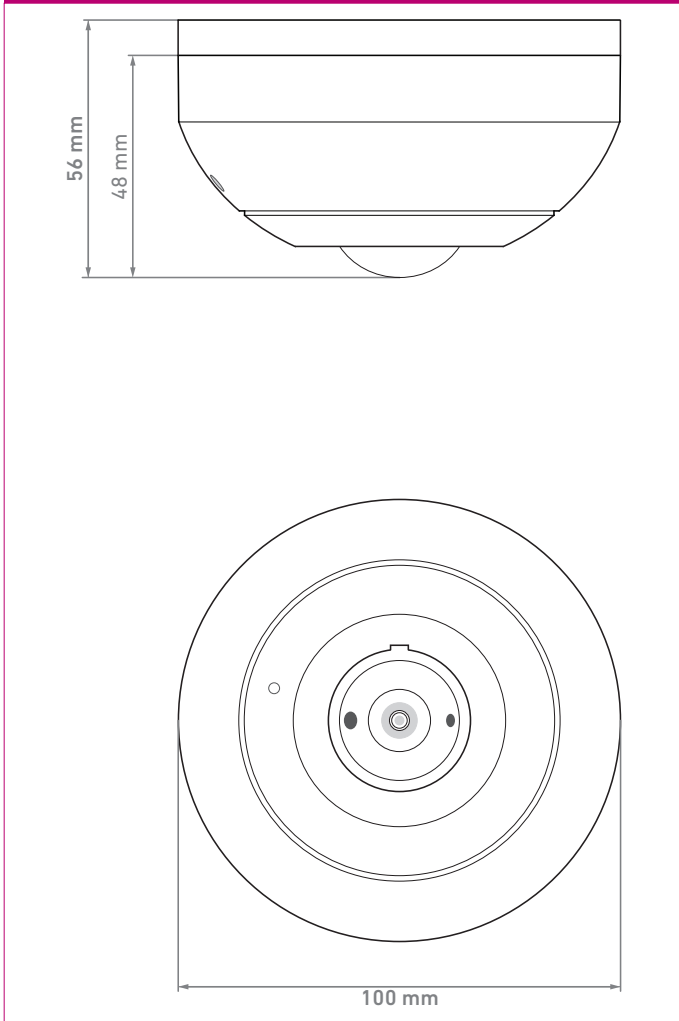


Figure 3 Category C Loop Powered VAD (C-3-8.5) with XPERT 7 Mounting Base dimensional drawing

