C-3-8.5 and C-3-15

# **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	XP95 <sup>®</sup> , Discovery <sup>®</sup> and
Protocol	CoreProtocol <sup>®</sup> 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. This occurs, for example, where there is high background noise such as in a workshop or in a machine room.

It might also be required where deaf or hearing impaired persons may be present.

- 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

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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

\* Tested by Apollo Fire Detectors Limited to -40°C to +70°C

#### Application

Technical data

Coverage class

The Loop Powered Addressable Visual Alarm Device is a localarea VAD designed for indoor use.

The VAD can be connected to systems with XP95, Discovery or Soteria $^{\ensuremath{\oplus}}$  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.

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



# **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 <sup>†</sup>	XP95	
CoreProtocol <sup>†</sup>	XP95	

† Fire control panel dependant

## Loop Loading

Up to 12 VADs may be fitted between standard XP95 isolators (Part No. 55000-700/710/720) or isolating mounting bases (Part No. 45681-284, which replaced Part No. 45681-321). 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.

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  $\pi$  x (15  $\div$  2)² x  $^3$  + 530 m  $^3$ 

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

# **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 305/2011**

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

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

# Category C Loop Powered VADs



