



Intrinsically Safe (IS) Products ATEX 94/9/EC (Orbis only) IECEx Installation Guide

General

All Apollo IS devices are intended for use in hazardous area systems complying with the European ATEX directive 94/9/EC that deals with products used in hazardous areas. All such systems must incorporate a certified safety barrier or interface to limit the voltage and power to the circuit. Information on suitable barriers and interfaces can be obtained from Apollo.

These notes are intended to supplement the mandatory requirements of the ATEX directive or other applicable regulations. They should not be taken as full instructions for the design and installation of intrinsically safe systems. These activities must be carried out only by qualified personnel.

Certification

The XP95 IS range of detectors and manual call points (MCPs), the Series 60 IS range of detectors and the Orbis IS range of detectors are BASEEFA certified as components. Their component certification allows them to be used in certified intrinsically safe systems.

orbis™ Relay Base Wiring Guide

1. Activate the locking mechanism if the detector is to be locked into the base. To do this, remove the small portion of plastic shown in **Fig 1** with side cutters or similar tool.

2. Partially screw two screws into the mounting box or soffit at the required centres. Place the corresponding slots of the base over the screws and slide the base home. Tighten up the screws.

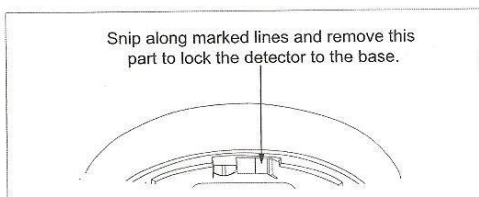


Fig 1 Locking the relay base

3. **Fig 2** shows the wiring terminals. The terminal marked '4' on the base is provided for connecting the screen or functional earth.
4. The outside of the base is marked with a moulded vertical line to indicate the position of the LED when the detector has been fitted. This facilitates detector orientation if required.

Unlocking the detector

To unlock the detector from the base, insert a 1.5mm hexagonal driver (part no 29600-095) into the small hole on the detector face and gently lever the driver outward whilst rotating the detector anti-clockwise.

Each product range is covered by a system certificate issued by BASEEFA in Apollo's name. Systems installed according to Apollo system drawings will be covered by the system certification. The use of barriers, interfaces, or other components not included in the system drawing will invalidate the certification. The relevant system drawings are as follows:

XP95 IS systems	Z20982	Ex 94C2444
Series 60 IS systems	Z20983	Ex97D2054

The system certificate number must be marked on the installed system, preferably on the barrier or interface housing. The system is certified to ATEX only.

Explosion Protection Category

All Apollo Series 60 IS detectors and XP95 IS detectors and call points comply with the categories:

II 1 G Ex ia IIC T5 (T4 at Ta ≤ 60°C)

Orbis IS detector categories are:

II 1G Ex ia IIC -40°C < Ta < +40°C (T5)
-40°C < Ta < +60°C (T4)

The ATEX EC type examination certificate numbers applicable to Apollo IS devices are given in the table below:

ATEX Certificate	Apollo Product
BAS02ATEX 1289	XP95 IS detectors
BAS02ATEX 1290	XP95 IS call points
BAS02ATEX 1288	Series 60 IS detectors
Baseefa 06 ATEX 0007X	Orbis detectors
IECEx Certificate	
IECEx BAS 06.0002X	Orbis detectors

Copies of all component and system certificates, and system drawings are available from Apollo on request.

Installation of Detectors

Detectors must be fitted to certified IS bases. Use of any other bases will invalidate the detector certification. Orbis detectors may be fitted to Series 60 systems using an Orbis IS base adaptor.

The bases must be installed in such a way that all wiring is protected to at least IP20. This requirement will be met if bases are flush mounted. If bases are mounted on BESA boxes, or other boxes having a diameter less than 85mm, they should be fitted with Series 60/XP95 backplates (Apollo part number 45681-233).

Remote LED indicators may be fitted to Orbis, Series 60 IS or to XP95 detectors. The LEDs need not be certified but should be either 3mm or 5mm in diameter. The LED terminations must be protected to at least IP20 and the circuits must be segregated from other circuits.

Installation of Manual Call Points

Manual call points must be installed to comply with the requirements of the ATEX directive or another applicable code of regulations. All unused cable entry ports must be sealed using suitable stopping plugs to give the required level of ingress protection.

Further Information

For further information see Apollo publications PP2028 and PP1095 for the Series 60 and XP95 ranges respectively. For information on Orbis see publication PP2250

See also www.apollo-fire.co.uk/resources/ATEX
ATEX en français, Deutsch, Italiano, Español, Česky, slovenščina, Svenska, Nederlands, português, Ελληνικά, Suomi, Dansk, Magyar, Polski, Lietuvių kalba, Eestí, Latviešu, slovenský jazyk

Relay Base

The relay base incorporates a single-pole voltage-free changeover contact for switching ancillary equipment. The contact rating is 30V 1A (max).

When the detector changes to the alarm state, the relay is energised, causing the contact to change state. The contact will remain in this condition until the detector is reset.

Note: a remote LED will impair the operation of the relay base, therefore, do not use a remote LED with this base.

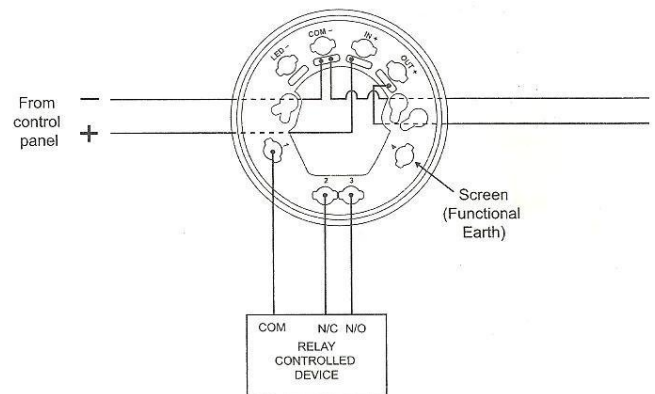


Fig 2 Relay base wiring connections

Technical Data

Base operating voltage 10-33V dc
Base holding voltage range zone voltage should not fall below 5V
Base alarm current 7mA at 24V