

DOCUMENT CONTROL NUMBER /
M300 SERIES DETECTOR BASES AND ACCESSORIES
PRODUCT APPLICATION AND DESIGN INFORMATION
1. INTRODUCTION

The M300 Series detector bases contains three types of base which can be used with the following systems:

M300 detector base:	System 1600 System 1700 System 750 Minerva 1-4 Zone DM520
M300CI detector base:	System 1700 Minerva 1-4 Zone DM520
M300 Schottky Diode Continuity Base:	System 1700 Minerva 1- 4 Zone

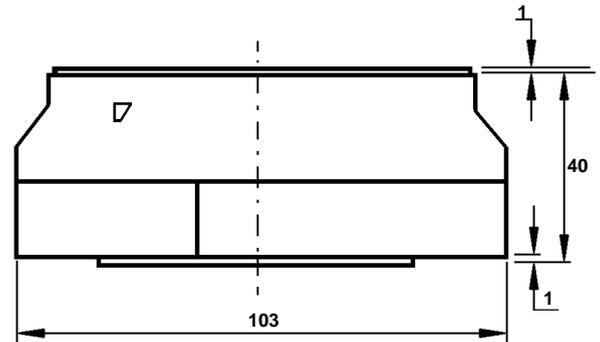


Fig. 1 Detector Base and Skirt Overall Dimensions

The M300CI and M300 Schottky Diode bases are for use in zones which comply with BS5839 Part 1, which requires that if callpoints are wired after detectors on a zone circuit, the removal of a detector will not affect the operation of these callpoints.

The detector bases and accessories form a part of the M300 Series of plug-in units for ceiling mounting. The range is intended for two wire operation. The base and skirt are common for all types of detector in the series but the unique polarisation feature can be used to make the base specific to any one detector type.

2. MECHANICAL CONSTRUCTION
2.1 DETECTOR BASE AND SKIRT OPERATION

The detector base and skirt consist of impact resistant plastic mouldings which may be assembled in four positions to allow insertion of one of the four detector types in the series [Figs.1 and 2 refer].

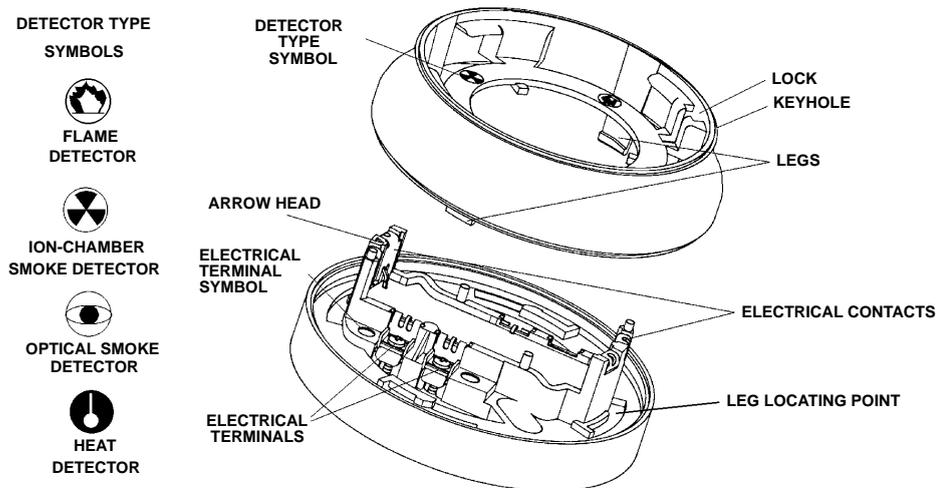


Fig. 2 Detector Base and Skirt

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The base may be fixed directly to British or European conduit boxes. Alternatively knockout points are provided on the inner and outer flanges of the detector base enabling surface electrical cable connections to be made to the four terminals in the detector base. The detector base has four electrical contacts which align with the contacts on the detector when the detector is latched fully in.

An external rib moulded into the base indicates the position to be assumed by the detector alarm LEDs when the detector is fitted. The rib must be aligned so that it is visible from the search route. This is to satisfy the BS5839 Part 1 definition of a zone. A remote LED terminal is provided in the base.

The inner circular moulding of the skirt shows the four detector types in symbolic form. An arrow head is printed on one of the electrical contact pillars. When fitting the skirt to the detector base, the chosen detector type symbol is first placed against the arrow head. The skirt legs are then inserted in the location points on the detector base. The skirt is then turned clockwise until fully home. Once the skirt is fully home in the chosen position the skirt may only be removed using the Skirt Changer Head [Figs. 1, 2 and 7 refer].

To provide continuity and some protection from dust before the detector is fitted, a continuity plug is clipped into position on the skirt [Fig. 3 refers].

When the selected detector is finally fitted to the detector base it may be locked in position with the optional locking arrangement. This locking facility should only be necessary if the detector is easily accessible. The detector may only be removed by a detector key [Fig. 4 refers].

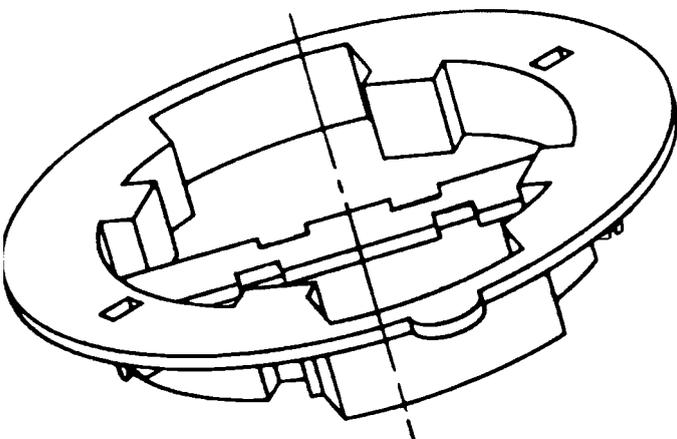


Fig. 3 Continuity Plug

2.2 CONTINUITY PLUG

The continuity plug is used during installation to provide continuity before the detector is fitted. It may be inserted in two positions both of which provide continuity between the electrical contacts. A removal tab is provided which permits the plug to be easily removed with a suitable tool prior to fitting the detector

2.3 LOCKING ARRANGEMENT

The detector may be locked in position by inserting the optional locking device in the skirt and before fitting the selected detector. The detector may then only be removed by inserting the key into the keyhole in the skirt. This depresses the locking arrangement allowing the detector to be removed. [Fig. 4 refers].

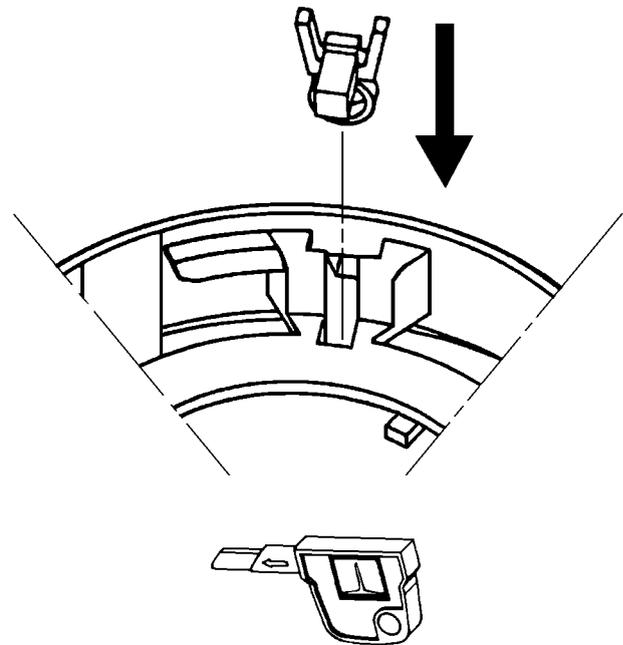


Fig. 4 Lock Insertion and key

2.4 RECESSED MOUNTING KIT

The recessed mounting kit allows the detector base to be fixed to false ceilings with only the detector protruding into the protected area. A clip-on bezel is provided to cover the fixing screw heads, [Fig. 5 refers].

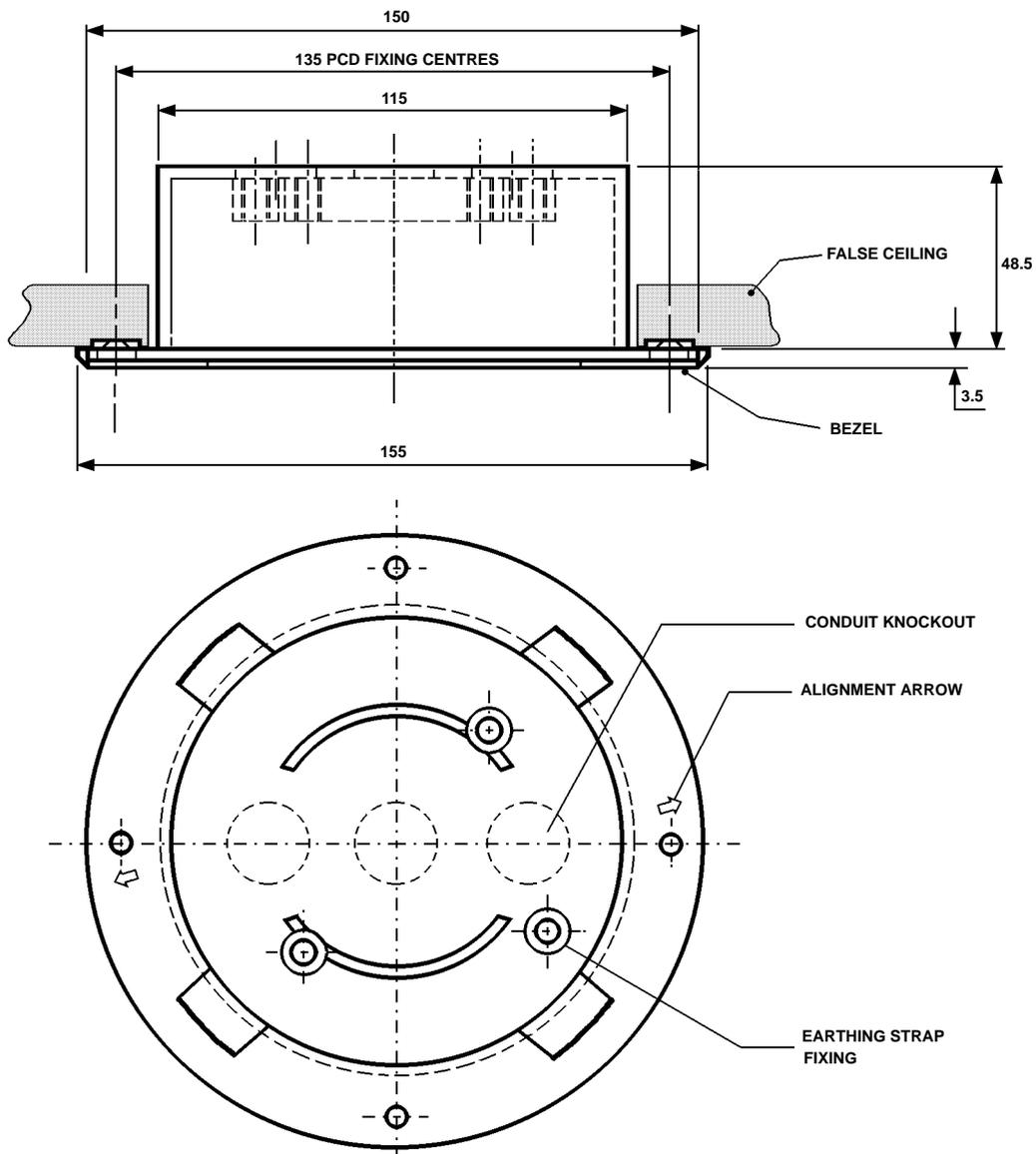


Fig. 5 Recessed Mounting Kit

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2.5 DECKHEAD MOUNTING KIT [DHM35]

The deckhead mounting kit was initially designed for marine applications but can also be recommended for use in particularly damp or dirty areas [Fig. 6 refers]. A further protection from physical contact damage will be provided by a cage which may be fitted to this mounting.

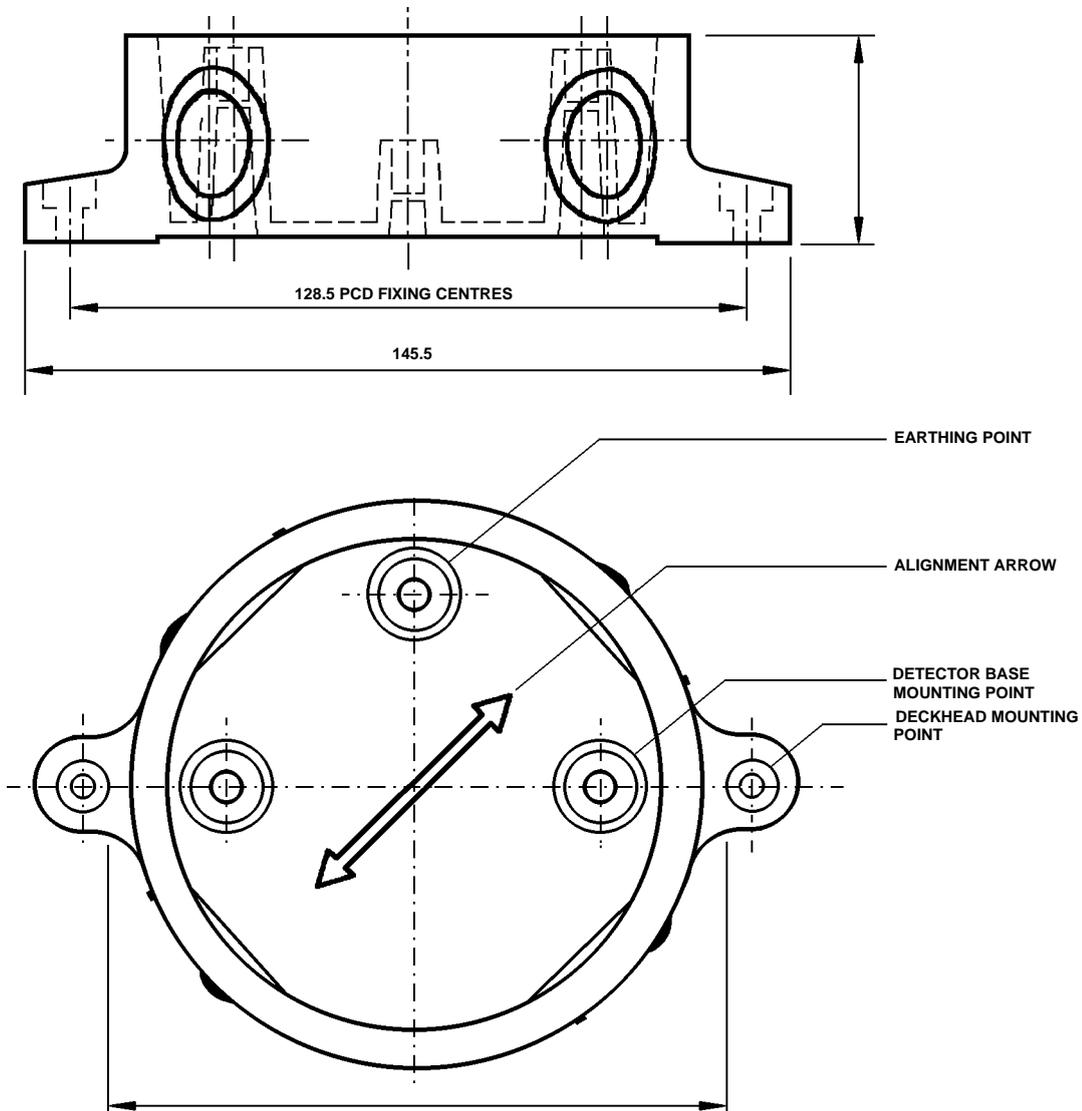


Fig. 6 Deckhead Mounting Kit [DHM35]

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2.6 SKIRT CHANGER HEAD

The skirt changer head [Fig. 7] is used to insert or remove the skirt from the detector base. Extension poles are available allowing the skirt to be removed from high sitings.

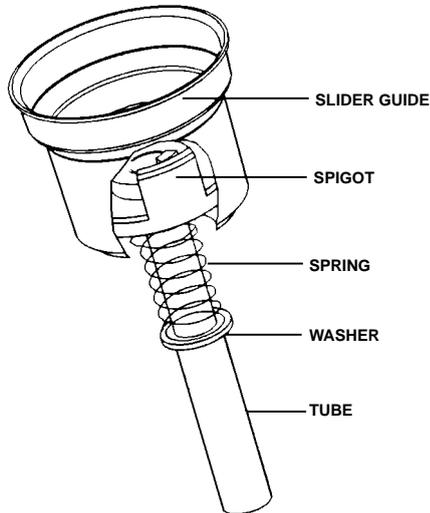


Fig. 7 Skirt Changer Head

3. TECHNICAL SPECIFICATION

3.1 MECHANICAL

MATERIALS

Detector Base and Skirt: "BAYBLEND"
[Polycarbonate/ ABS alloy] Flame Retardant-
UL94-VO white

Detector Base Terminals
and Contacts: Nickel/silver NS103
Base Screws: Steel/zinc plated

Recessed Mounting Kit: "BAYBLEND"
[Polycarbonate/ ABS alloy] Flame Retardant -
UL94-VO white

Deckhead Mounting Kit [DHM35]:
Dough Moulded Compound,
Glass Filled Polyester [Thermoset] self-coloured
white

Continuity Plug: High Impact Polystyrene
natural

WEIGHT

Detector Base and Skirt:	0.10 kg
Recessed Mounting Kit:	0.15 kg
Deckhead Mounting Kit [DHM35]:	0.25 kg

ENVIRONMENTAL

Operating Temperature:	-20°C to +70°C
Storage Temperature:	-25°C to +80°C
Humidity:	95%

3.2 ELECTRICAL CHARACTERISTICS

Through Supply Voltage: 28V d.c. max [polarity conscious]

3.3 INTRINSIC SAFETY

The intrinsically-safe version of the detector base is designed to be used in conjunction with a zener safety barrier in a certified intrinsically-safe system. The intrinsically-safe version will be identified by the BASEEFA mark.

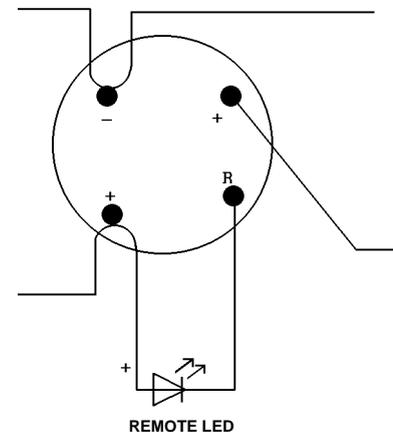


Fig. 8 Terminal Designations

4. CABLING

Cabling is to be selected in accordance with Publication 05A-02-D1. A maximum of two 1.5 mm cables may be connected at any one terminal.

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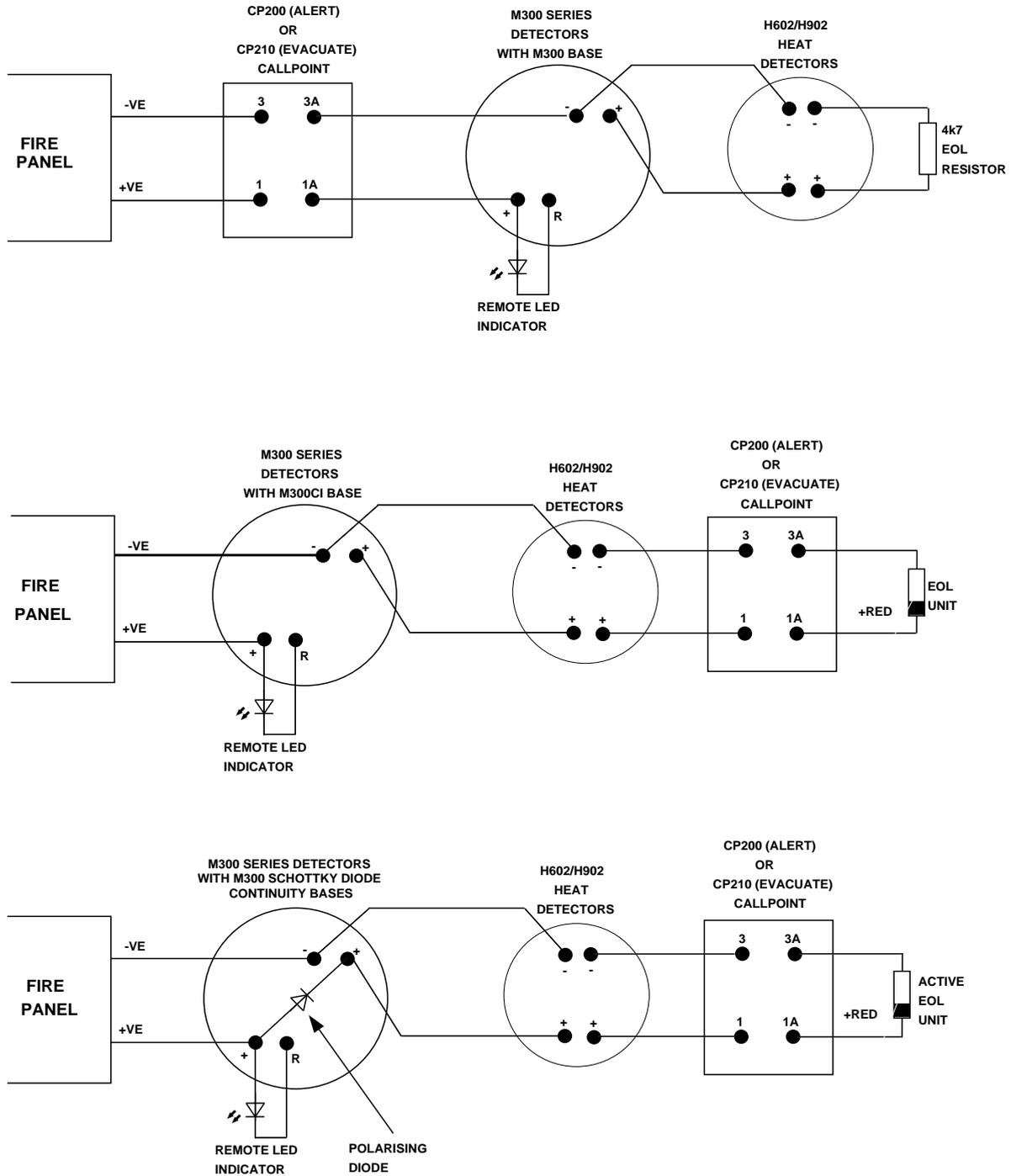


Fig. 9 Simplified Wiring Diagrams

5. ASSOCIATED EQUIPMENT

The detector base and skirt are compatible with the complete range of the M300 series of plug-in detectors.

The detector base is used in association with the following mountings:

- British conduit box
- European conduit box
- Recessed mounting kit
- Deckhead mounting kit

6.2 ACCESSORIES

Recessed Mounting Kit:	517.025.022
Deckhead Mounting Kit [DHM35]:	517.001.191
Skirt Changer Head:	517.025.026
Pack of ten locks and One Key:	517.025.010
Pack of 100 Continuity Plugs:	517.025.011
Set of three Extension Poles in Carrying Case:	590.001.011

6. ORDERING INFORMATION

6.1 DETECTORS

	Stockcode
M300 Base and Skirt [Packed in 10s]:	517.025.001
M300Ex Base and Skirt [Intrinsically Safe] [Packed in 10s]:	517.025.002
M300CI Base:	517.025.005
M300 Schottky Diode Continuity Base and Skirt:	517.025.007

7. RELATED PUBLICATIONS

01A-02-D3	DESIGN INFORMATION MF300 DETECTOR RANGE
01A-02-D4	DESIGN INFORMATION MR300 DETECTOR RANGE
01A-02-D6	DESIGN INFORMATION MS300 DETECTOR RANGE
01A-02-D7	DESIGN INFORMATION MD300 DETECTOR RANGE
01A-02-I1	DETECTOR BASE AND ACCESSORIES, M300 SERIES INSTALLATION
01A-02-C1	DETECTOR BASE AND ACCESSORIES, M300 SERIES COMMISSIONING
01A-02-S1	MAINTENANCE AND SERVICING M300 DETECTORS AND BASE

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21st February 1997