



OCM-AS3 LOOP POWERED RELAY OUTPUT CONTROL MODULE INSTALLATION & TECHNICAL MANUAL

No: NISM/OCMAS3/01	
DATE: JANUARY 2002	
PAGE: 1 of 9	ISSUE: 01

RELAY OUTPUT MODULE OCM-AS3

INTRODUCTION

DESCRIPTION

The OCM-AS3 forms part of the Nittan (UK)'s **SENSORTEC-ANALOGUE** range of Analogue Addressable Devices.

This module is designed to perform a loop powered, control relay output function from the detection signalling loop of an analogue-addressable fire detection system.

The OCM-AS3 may be used for a variety of purposes such as closing fire doors, shutting down plant machinery and operating smoke extraction systems via this loop powered device.

OPERATION

The fire alarm control equipment must be capable of communicating with the OCM-AS3 relay output control module. If in doubt, check with panel manufacturer.

The OCM-AS3 is a loop powered, two-wire signalling device, it is connected onto the detection signalling loop's SIG+ and -S wires, exactly as any other 'AS' sensor or device.

FEATURES

* A relay control output for the switching of external equipment such as fire doors etc..

* Loop powered, no PSU requirements

OCM-AS3 Relay Output Control Module is made up as follows:-

- 1 x Metal enclosure c/w 20mm knockouts
- 1 x OCM-AS3 PCB c/w internal plastic PCB enclosure with hinged lid.
- 1 x Earth point (on lid)
- 1 x Earth point (inside of enclosure)
- 1 x 200mm Earth Strap
- 1 x Label inside lid for product identification and device address identification.

SENSORTEC-ANALOGUE FAMILY:-

SENSORS:-

- ST-I-AS** - Analogue Ionisation Smoke Sensor
- ST-P-AS** - Analogue Photoelectric Smoke Sensor
- ST-H-AS** - Analogue Heat Sensor
- STB-4** - Standard Base for above sensors

DEVICES:-

- ST-NCP-AS** - Addressable Call Point
- BACK BOX** - Back Box for ST-NCP-AS
- MCM-AS4** - Zone Monitor/Control Unit
- SCM-AS4** - Addressable Sounder Control Module
- NAM-AS3** - Addressable Input Module
- OCM-AS3** - Relay Output Control Module
- SCI-5** - Base mounted Short Circuit Isolator
- SCI-6** - Plate mounted Short Circuit Isolator
- 1-Gang Box** - Single gang box for SCI-6

ADDRESSABLE SOUNDERS:-

- VCT-03-AS-NB** - Addressable Wall Sounder c/w Vector Plate/Cap (R = Red, W = White Plate/Cap).
- VCT-03-CP(W)** - Spare Vector Plate/Cap (White)
- VCT-03-CP(R)** - Spare Vector Plate/Cap (Red)
- VCT-03-NT-AS** - Addressable Sounder c/w STB-4 Base pre-wired to the sounder.
- VPR-SA2-NTAS** - Addressable Sounder, IP65 rated, wall mounted.

RELAY OUTPUT CONTROL MODULE OCM-AS3

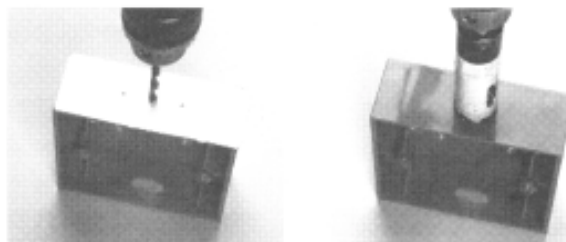
INSTALLATION

1)

- a) Remove the OCM-AS3 boxed unit from its packaging.*
- b) Remove the 4 x posi-screws holding the lid to the main enclosure of the OCM-AS3.*
- c) Completely remove the single top screw holding the P.C.B. enclosure to the rear of the main enclosure.*
- d) Unscrew halfway the two remaining lower screws holding the PCB enclosure to the rear of the main enclosure.*
- e) Gently tilt and lift out the P.C.B. enclosure and safely store the PCB enclosure until the wiring stage. (Note: Please take ESD precautions when removing the P.C.B. from the main enclosure.*

2)

- a) Using initially a 3-4mm 'pilot' drill and then a special 'knock out' drilling tool, as shown below, drill out the required amount of knockout holes for cable gland entry to the main enclosure of OCM-AS3.*



- b) Using the template on page 5 of this manual, mark and drill the main enclosure screw positions in the wall.*
- c) Position the OCM-AS3 enclosure to the wall and screw the 4 x fixing screws through the rear of the enclosure.*
- d) Terminate all the loop cables and glands as required into the knockouts in the main enclosure.*
- e) Insert the PCB enclosure in reverse order as per instructions above.*

3)

- a) Terminate all the loop cables and any IP/OP auxiliary switching cables where required into the terminals on the PCB, please see page 8 of this manual for connection details.*
- b) Please note there is an earthing stud on the lid and on the rear of the main enclosure box if an earth is required on the fire system devices. An earthing cable/strap is provided with the MCM-AS4.*
- c) When all the necessary commissioning has successfully been carried out, replace the lid onto the enclosure, replace the 4 x lid fixing posi-screws.*



Electro-static Sensitive Devices.

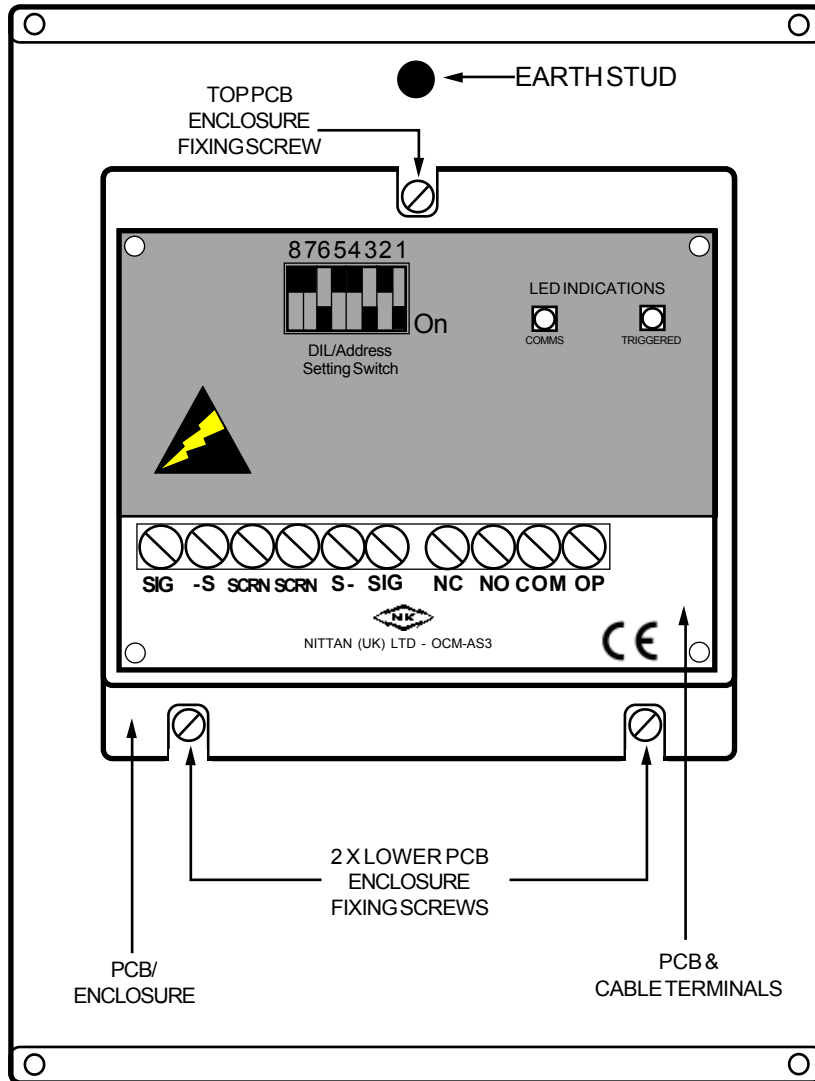
Take suitable ESD precautions when removing or installing printed circuit boards.



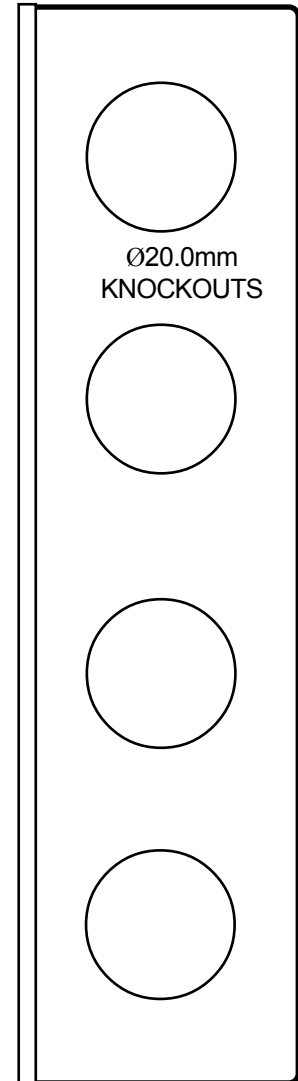
OCM-AS3 LOOP POWERED RELAY OUTPUT CONTROL MODULE INSTALLATION & TECHNICAL MANUAL

No: NISM/OCMAS3/01	
DATE: JANUARY 2002	
PAGE: 3 of 9	ISSUE: 01

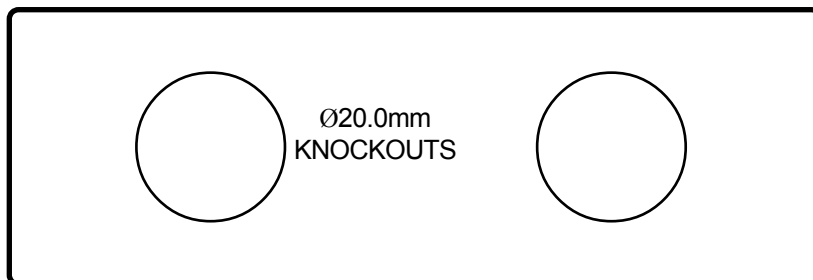
ENCLOSURE DESCRIPTION



TOP VIEW WITH LID REMOVED



SIDE VIEW 1



SIDE VIEW 2



**OCM-AS3 LOOP POWERED
RELAY OUTPUT CONTROL MODULE
INSTALLATION & TECHNICAL
MANUAL**

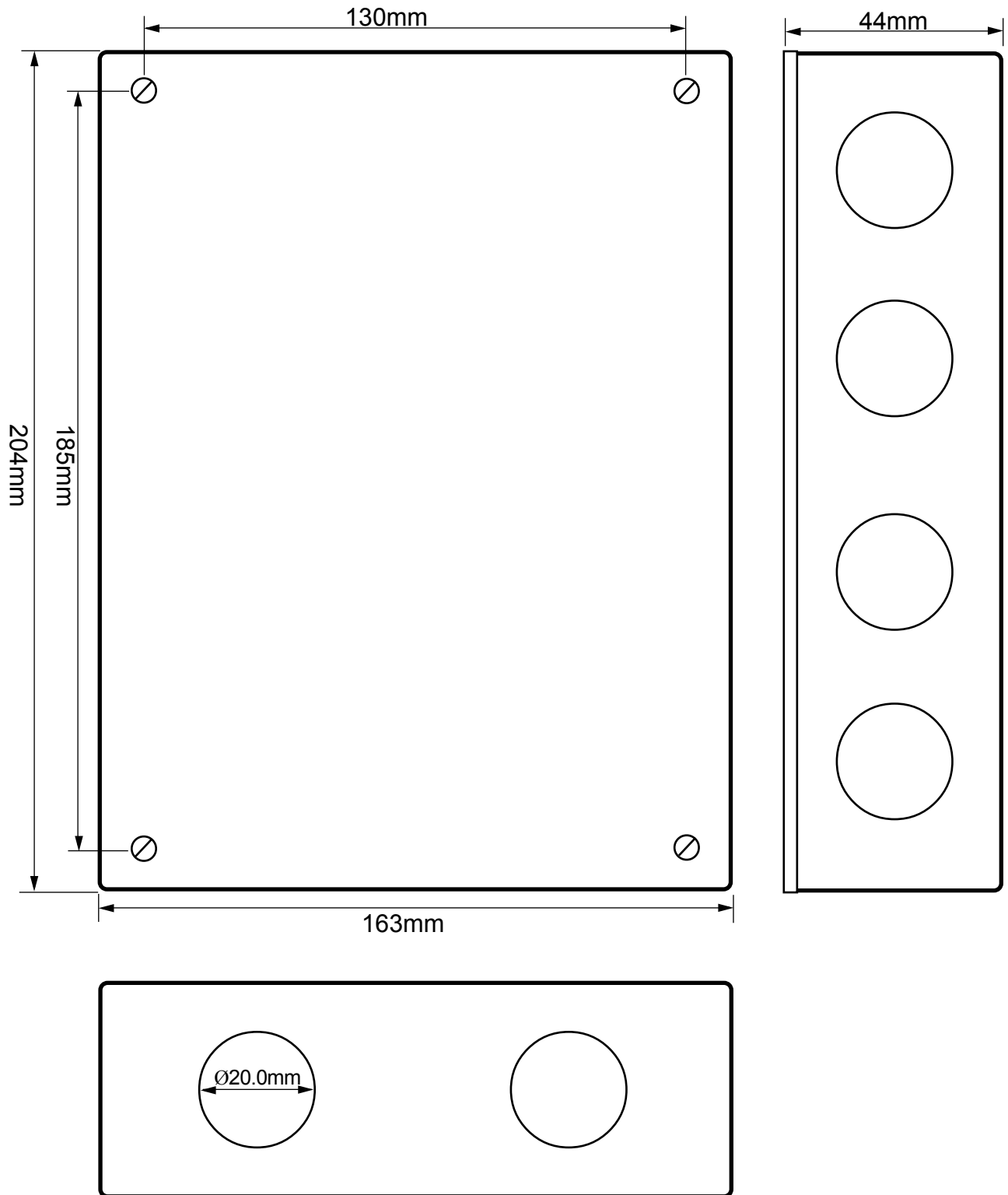
No: NISM/OCMAS3/01

DATE: JANUARY 2002

PAGE: 4 of 9

ISSUE: 01

ENCLOSURE OUTER DIMENSIONS



NOT TO SCALE



OCM-AS3 LOOP POWERED
RELAY OUTPUT CONTROL MODULE
INSTALLATION & TECHNICAL
MANUAL

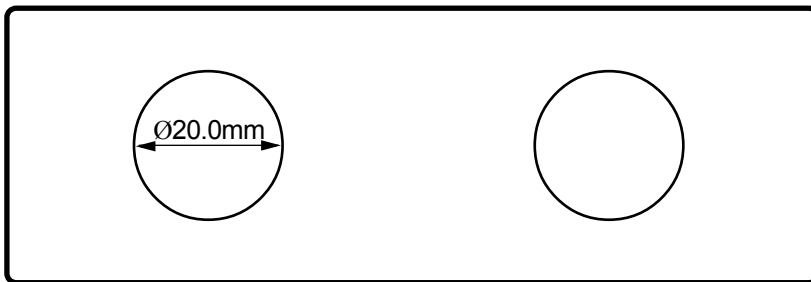
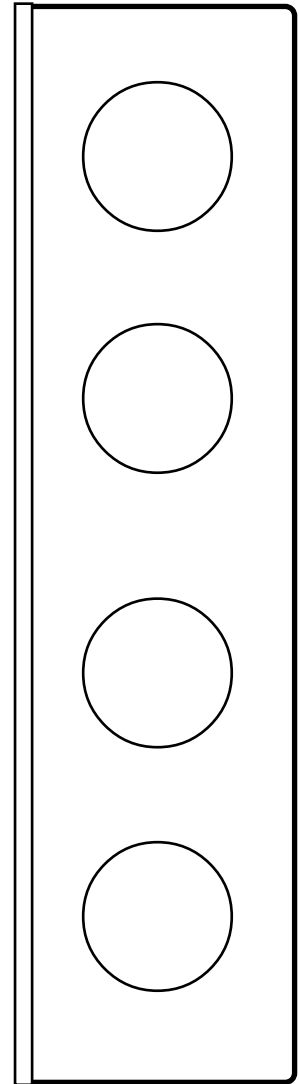
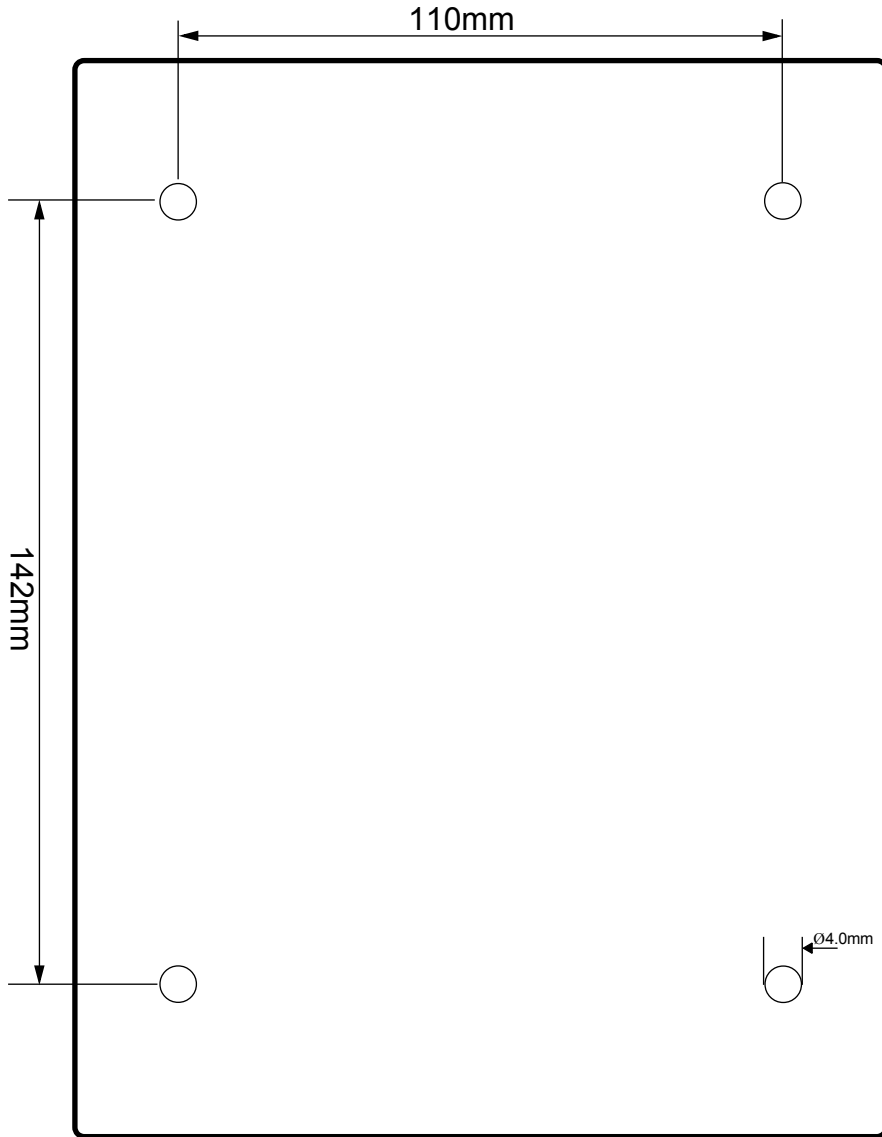
No: NISM/OCMAS3/01

DATE: JANUARY 2002

PAGE: 5 of 9

ISSUE: 01

ENCLOSURE DIMENSIONS (INTERNAL MOUNTING HOLES)





**OCM-AS3 LOOP POWERED
RELAY OUTPUT CONTROL MODULE
INSTALLATION & TECHNICAL
MANUAL**

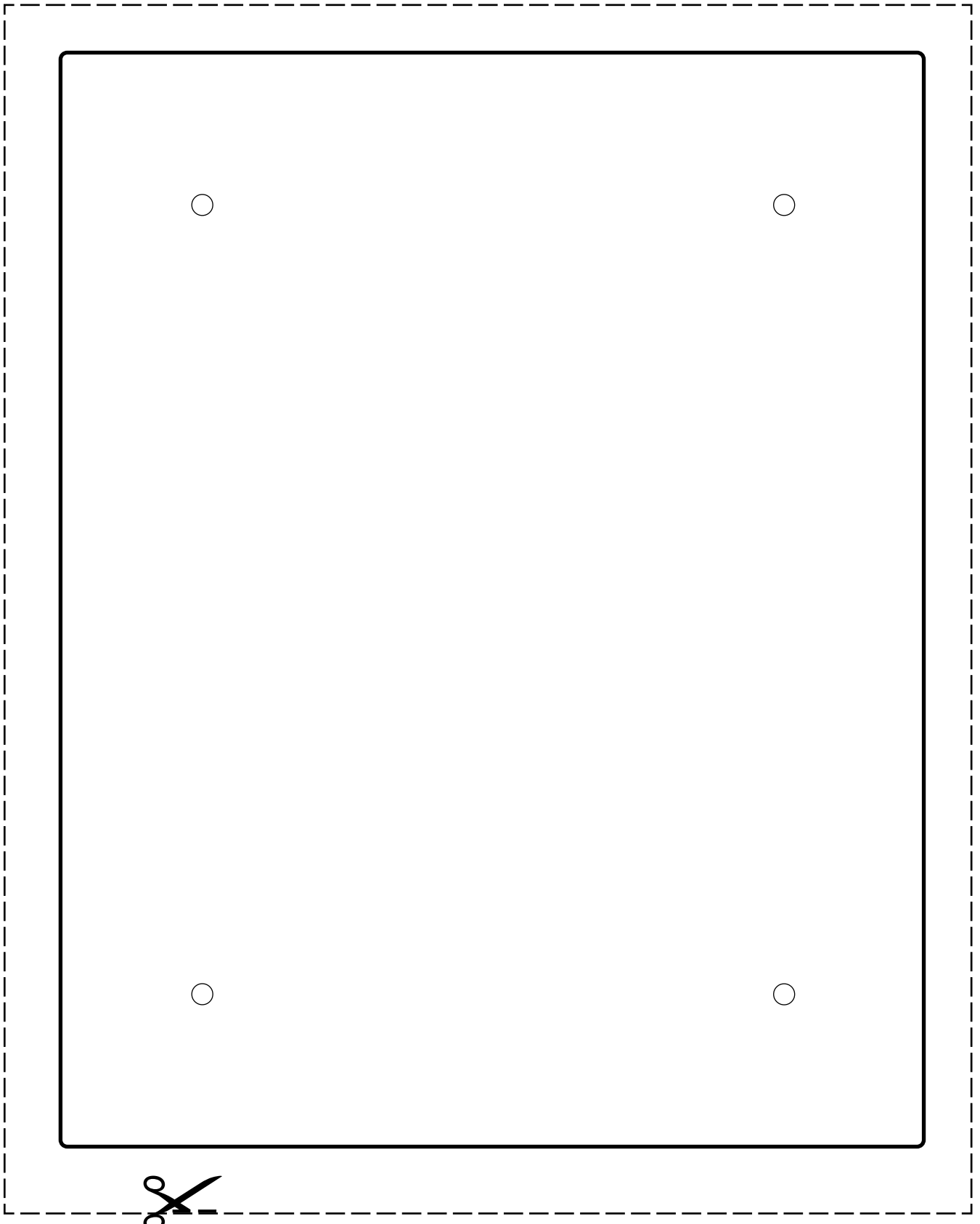
No: NISM/OCMAS3/01

DATE: JANUARY 2002

PAGE:
6 of 9

ISSUE:
01

ENCLOSURE MOUNTING TEMPLATE

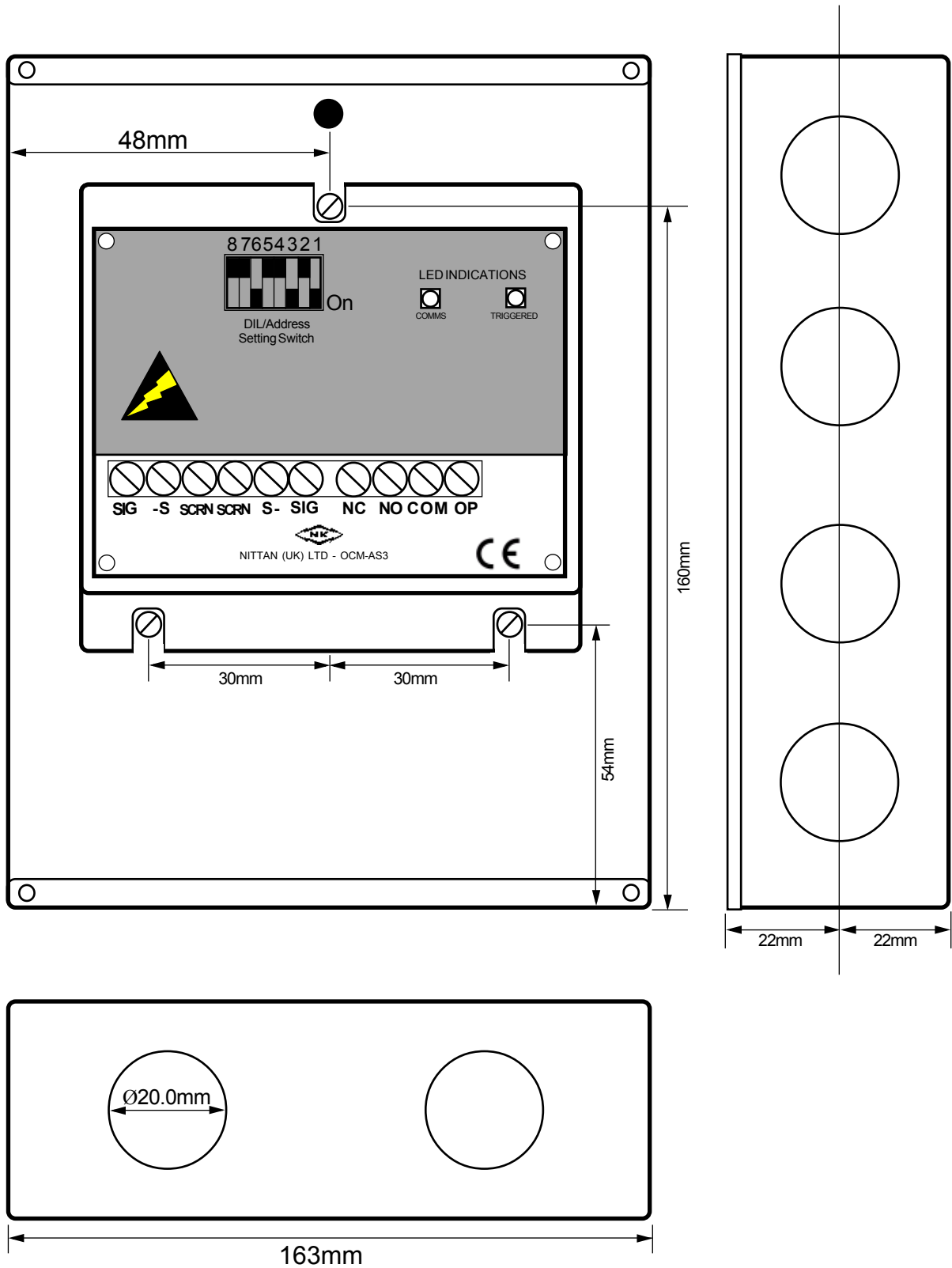




OCM-AS3 LOOP POWERED RELAY OUTPUT CONTROL MODULE INSTALLATION & TECHNICAL MANUAL

No: NISM/OCMAS3/01	
DATE: JANUARY 2002	
PAGE: 7 of 9	ISSUE: 01

ENCLOSURE (INTERNAL ASSEMBLY DIMENSIONS)



NOT TO SCALE

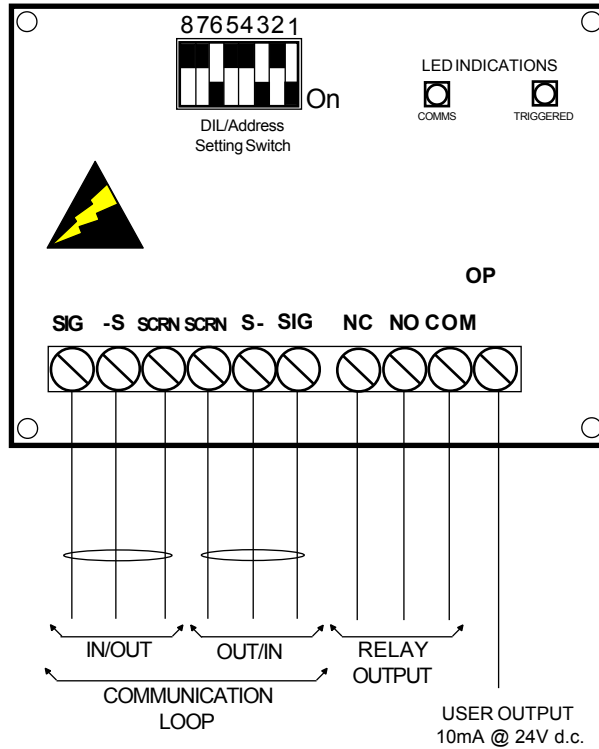


OCM-AS3 LOOP POWERED RELAY OUTPUT CONTROL MODULE INSTALLATION & TECHNICAL MANUAL

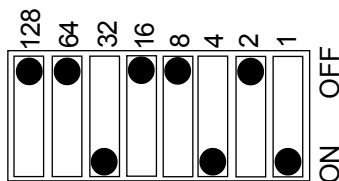
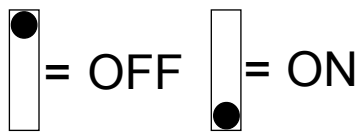
No: NISM/OCMAS3/01	
DATE: JANUARY 2002	
PAGE: 8 of 9	ISSUE: 01

CONNECTION DETAILS AND ADDRESS SETTING

CONNECTIONS TO OCM-AS3 PCB



ADDRESS SETTING



Example address switch is set to 37 Decimal .



Electro-static Sensitive Devices.

Take suitable ESD precautions when removing or installing printed circuit boards.



**OCM-AS3 LOOP POWERED
RELAY OUTPUT CONTROL MODULE
INSTALLATION & TECHNICAL
MANUAL**

No: NISM/OCMAS3/01	
DATE: JANUARY 2002	
PAGE: 9 of 9	ISSUE: 01

OCM-AS3 - TECHNICAL/ENGINEER SPECIFICATION

Part Numbers:-

Model Number	-	-	-	OCM-AS3
Description	-	-	-	Relay Output Control Module (Boxed).
Computer Reference Number	-	-	-	F16N85115

Protocol:-

Communication Protocol	-	-	-	NISM/WFM/02 (Nittan AS Protocol).
Address Setting	-	-	-	8 Bit, DIL Switch
Type Identification Data	-	-	-	2 Bits Fixed.

Ratings:-

Current Consumption*	-	-	-	350µA (Quiescent) c/w conventional detector zone.
(*From loop @24v)	-	-	-	500µA (Max.)
Relay Rating	-	-	-	2 Amps @ 24V d.c. Resistive.
Power Supply Requirements	-	-	-	Loop Powered, No external PSU required.

LED Indications:-

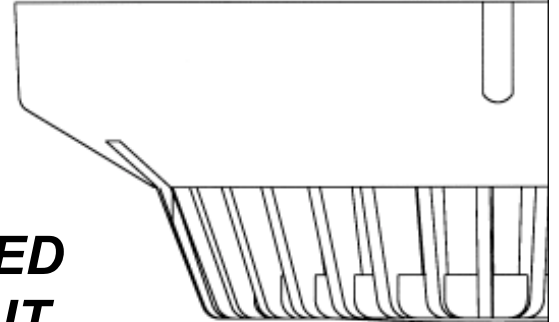
On Board LED Indication	a)	-	-	Red ' COMMS. ' LED:- ('Pulse's' when polled).
	b)	-	-	Red ' TRIGGERED ' LED:- ('Pulses' when Relay Operate's. Note: 'COMMS' & 'TRIGGERED' LEDs both 'Pulse' simultaneously when the relay operates).

General Specifications:-

Mass	-	-	-	50g (PCB only).
	-	-	-	1.5Kg complete (Boxed).
20mm Knockouts	-	-	-	12 nos.
Operating Temperature	-	-	-	-10 Deg. C. to +50 Deg. C.
I.P. Rating	-	-	-	I.P.43 (Boxed).
Transistor switch 'User Output'	-	-	-	10mA @ 24V d.c. (For signalling to external circuitry).
Earth Strap	-	-	-	200mm length, 24/0.2Ø Green/yellow c/w 2 x 4.5-5mm ring crimp ends.

From world leaders in **SENSOR TECHNOLOGY**
comes **SENORTEC.....**

**OCM-AS3
LOOP POWERED
RELAY OUTPUT
CONTROL MODULE
INSTALLATION &
TECHNICAL MANUAL**



NITTAN (UK) LTD



Quality System Certificate No. 041
Assessed to BS EN ISO 9002

NITTAN (UK) LTD.
Hiple Street,
Old Woking,
Surrey, England,
GU22 9LQ United Kingdom.

Tel: +44 (0) 1483 769555
Fax: +44 (0) 1483 756686

Web Site: www.nittan.co.uk
E-mail: sales@nittan.co.uk