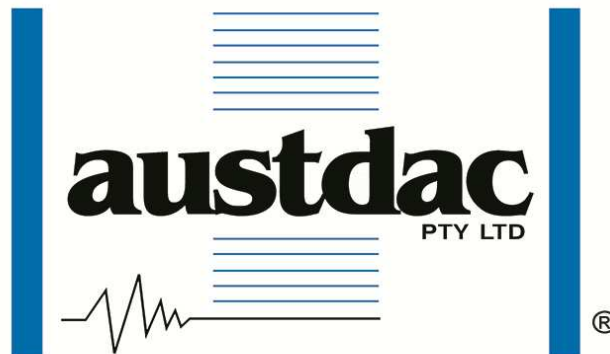


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Title

STROBE TYPE MFLA3 (INTRINSICALLY SAFE) USER MANUAL

Document Number

59-089-12

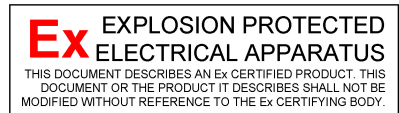
Issue

06





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REVISION CONTROL

06	Address and Logo Update	2017.04.05	CW	CW	PC
05	AUSTADAC PART NUMBER TABLE	2007.02.07	JY	PB'	JY'
04	Add MSHA statement	2006.05.10	PB'	PB'	JY
03	Add Austdac P/No and Ex declaration	2006.01.04	PB'	PB'	JY
Issue	Details	Date	Drawn	Designed	Approved

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TABLE OF CONTENTS

General description.....	3
Ordering information.....	4
Installation and mounting.....	4
User wiring.....	5
Part numbers.....	5
Certification.....	6
Specification.....	6

PHOTOGRAPHS

Photograph 1 MFLA3-XX-XX Strobe with gasket.....	3
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FIGURES

Figure 1 Host enclosure drilling details.....	4
Figure 2 Strobe mounting details.....	5

TABLES

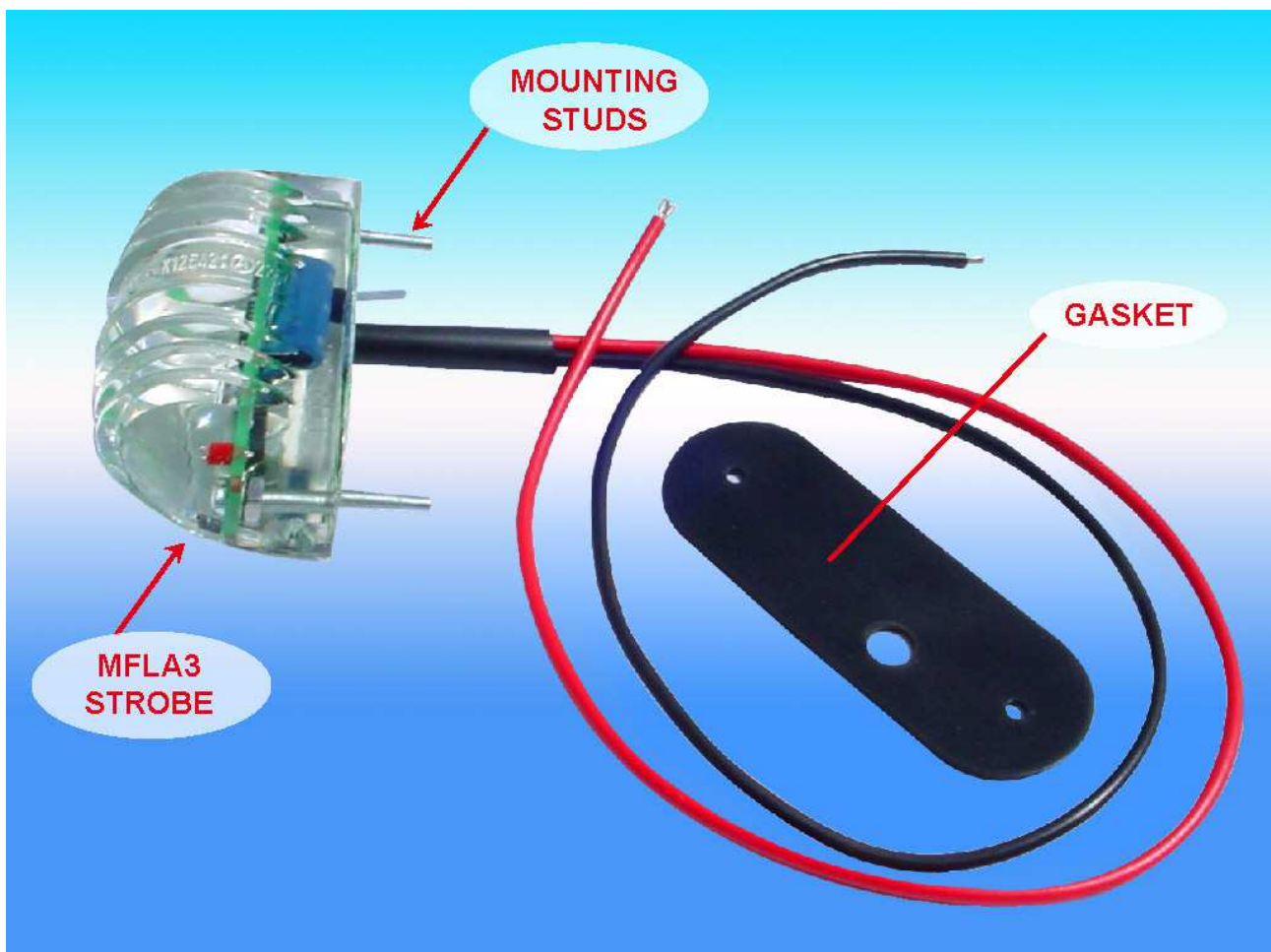
Table 1 Strobe wire colour coding.....	5
Table 2 Austdac part numbers for strobe type MFLA3.....	5
Table 3 MFLA3-06-XX Entity parameters.....	6
Table 4 MFLA3-12-XX Entity parameters.....	6

GENERAL DESCRIPTION

The Strobe type MFLA3 is a small explosion protected (Ex ia) LED based self-flashing strobe designed for general alarm annunciation applications in hazardous areas such as underground coalmines. These applications include but are not limited to, visual warning alarms, visual pre-start alarms, out of range process alarms and enunciators.

The MFLA3 is completely encapsulated within the lens body providing significant improvements in ingress protection and impact resistance over previous models provided by Austdac. The Strobe is available in the five colours, red, green, yellow, blue and white. This allows the user to select a colour best suited for the installation. The MFLA3 is primarily designed for low power underground applications but may also find application in above ground locations due to the significant brightness of the strobe.

The unit may be mounted on any free surface, such as a sheet metal enclosure, using the two M3 mounting studs. A gasket is supplied with the MFLA3 to provide up to IP65 ingress protection of the host enclosure. The strobe is easy to mount, as it only requires three small holes, two for mounting and one for leads, in the host enclosure.



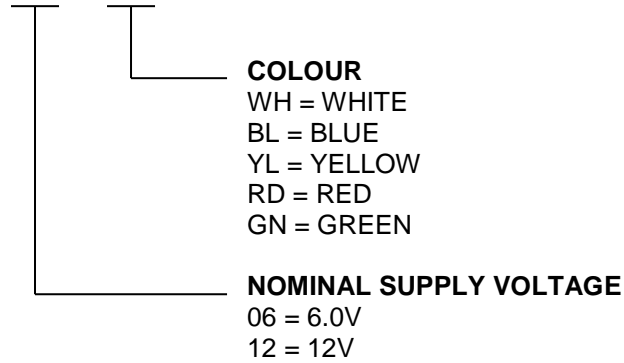
Photograph 1. Strobe with gasket

The strobe is available in two supply voltage ranges, 4 to 7.88 and 8 to 12.6, both with a very low power consumption of 15mA and 12mA respectively.

ORDERING INFORMATION

The MFLA3 is available in the following nominal supply voltages and colours

MFLA3 – SS – CC



INSTALLATION AND MOUNTING

The MFLA3 strobe is designed to be mounted on a host enclosure or equipment with the flying termination leads and mounting studs entering into the host via holes within the host enclosure wall. A gasket is provided to fit between the host enclosure and the base of the strobe. The strobe is designed to be mounted without protection bars but if the strobe is to be mounted where it may be subject to direct or glancing impact Austdac recommends the use of protection bars or grills.

The strobe type MFLA3 requires three holes in the host enclosure, two for mounting and one for the entry of the strobe power leads. Figure 1 below shows the drilling detail for the host enclosure. Note that if two or more strobes are to be mounted adjacent to one another the minimum pitch is 40mm.

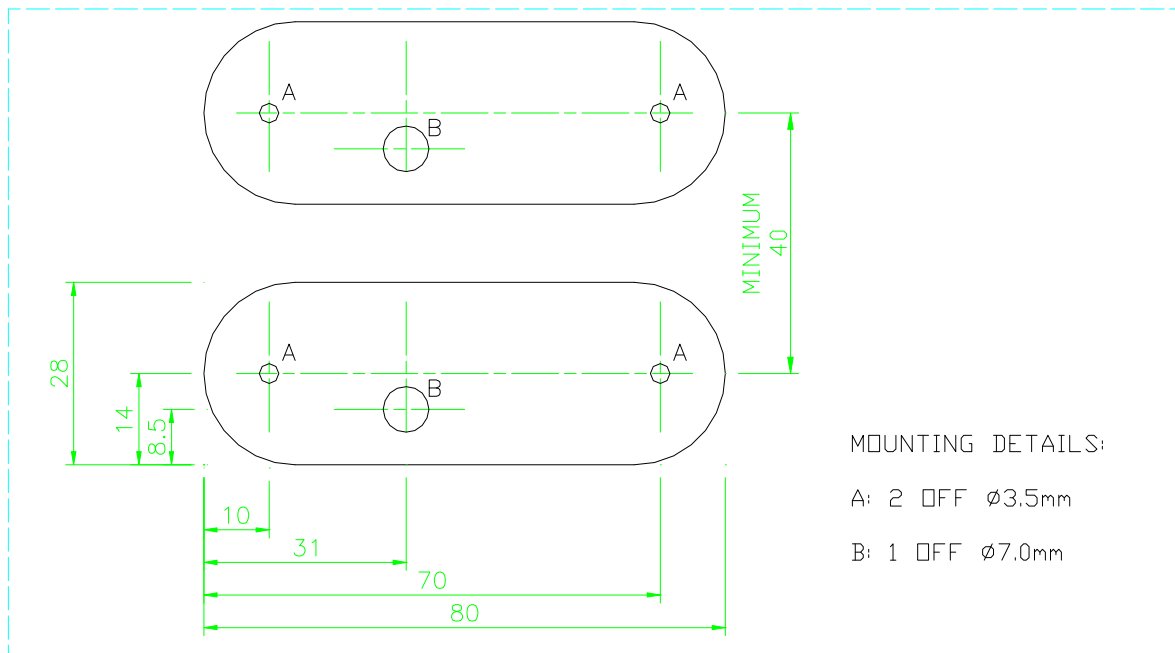


Figure 1. Host enclosure drilling details.

Figure 2 below shows the mounting details of the MFLA3 strobe, gasket and fixing screws.

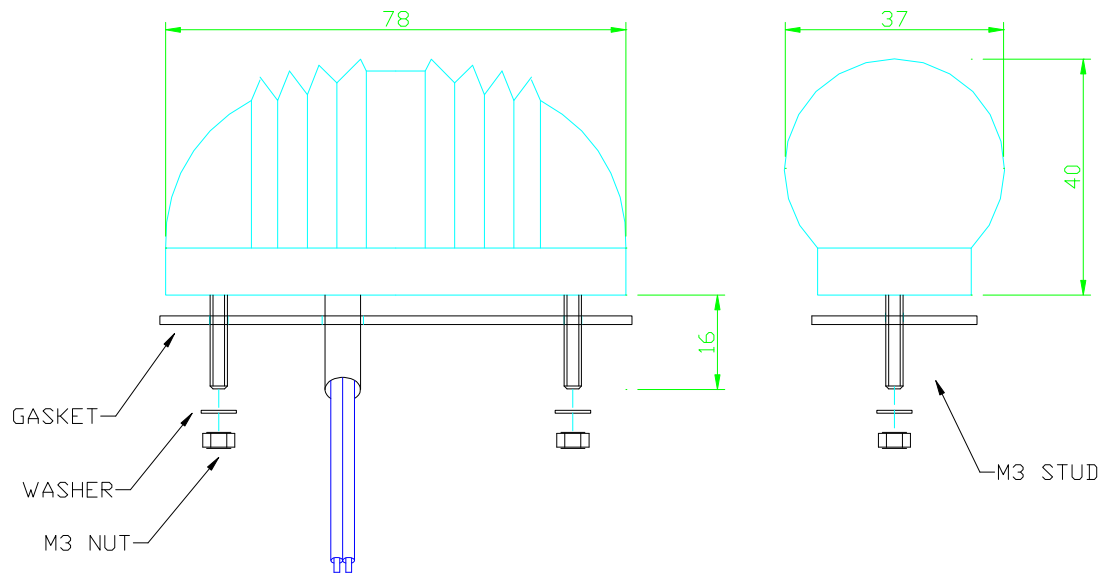


Figure 2. Strobe mounting details.

USER WIRING

The wiring connections to the type MFLA3 strobe is via 400mm flying leads that exit the encapsulation at the base of the strobe. The two wires are 24/0.2mm stranded conductors. The colouring of the wires indicates the operating voltage range of the strobe. Table 1 below shows the colour coding of the strobe flying leads.

STROBE TYPE MFLA3 USER WIRING COLOUR CODING DETAILS		
MODEL NUMBER	POSITIVE LEAD COLOUR	NEGATIVE LEAD COLOUR
MFLA3-06-XX	ORANGE	BLACK
MFLA3-12-XX	RED	BLACK

Table 1. MFLA3 Strobe wire colour coding.

PART NUMBERS

The type MFLA3 strobe is sold under the part numbers shown in table 2 below

AUSTDAC PART NUMBERS FOR THE STROBE TYPE MFLA3		
COLOUR	6.0V NOMINAL SUPPLY	12.0V NOMINAL SUPPLY
RED	STROB24A	STROB23A
YELLOW	STROB24B	STROB23B
WHITE	STROB24C	STROB23C
GREEN	STROB24D	STROB23D
BLUE	STROB24E	STROB23E

Table 2. Austdac part numbers for Strobe type MFLA3

CERTIFICATION

The Strobe type MFLA3 is certified for use in Group I hazardous areas and has been awarded IECEx and Australia / New Zealand ANZEx certification. The MFLA3 holds ANZEx certificate 05.1234X. The various models of the strobe have different entity parameters as follows.

MFLA3-06-XX ENTITY PARAMETERS	
U _i	7.88V
I _i	2.5A
C _i	11uF
L _i	0uH
U _o	0V

Table 3. MFLA3-06-XX Entity Parameters

MFLA3-12-XX ENTITY PARAMETERS	
U _i	12.6V
I _i	2.5A
C _i	0uF
L _i	0uH
U _o	0V

Table 4. MFLA3-12-XX Entity Parameters

SPECIFICATIONS

Nominal supply voltage MFLA3-06-XX	4V – 7.88VDC
Nominal supply voltage MFLA3-12-XX.....	8V – 12.6VDC
Current consumption MFLA3-06-XX	15mA
Current consumption MFLA3-12-XX	12mA
Flash rate	~1Hz
Colour	Red, Green, Yellow, Blue and White
Luminous intensity red.....	> 12,000 mcd
Luminous intensity green.....	> 18,000 mcd
Luminous intensity yellow.....	> 12,000 mcd
Luminous intensity blue	> 5,400 mcd
Luminous intensity white.....	> 20,000 mcd
Terminations	Flying lead
Lead length	400mm
Lead conductor	0.75mm ² , 24/0.2 strands
Size	42mm (H) x 78mm (L) x 38mm (W)
Mounting	2 off M3 studs supplied with plain nuts and internal star washers
Mounting centres	60mm
Maximum mounting panel thickness	5mm
Mounting ingress protection.....	IP56
Mass	100g
Operating temperature range	-10 to +50°C