



# Technical Manual for the Strobe – XB16

Please note that every care has been taken to ensure the accuracy of our technical manual. We do not, however, accept responsibility for damage, loss or expense resulting from any error or omission. We reserve the right to make alterations in line with technical advances and industry standards.

## 1. INTRODUCTION

These certified strobes have been designed for use in potentially explosive atmospheres and harsh environmental conditions. The glass reinforced polyester enclosures are suitable for use offshore or onshore, where light weight combined with corrosion resistance is required.

The strobe housing is manufactured completely from a U.V. stable, glass reinforced polyester, while the lens is manufactured from a U.V. stable polycarbonate. Stainless steel screws are incorporated ensuring a totally corrosion free product.

Units can be painted to customer specification and supplied with identification labels.

## 2. INSTALLATION

### General

When installing and operating explosion-protected equipment, requirements for selection, installation and operation should be referred to eg. IEE Wiring Regulations and the 'National Electrical Code' in North America. Additional national and/or local requirements may apply.

Ensure that all nuts, bolts and fixings are secure.

Ensure that only the correct listed or certified stopping plugs are used to blank off unused gland entry points and that the NEMA/IP rating of the unit is maintained.

### Mounting:

The strobe can be mounted on a 1/2" pipe and may be mounted in any position. To mount the strobe, fully thread onto end of pipe and secure with the setscrew supplied.

### UL1971 Mounting details

The UL1971 compliant versions of this strobe are designed for hearing impaired applications. These require a minimum 24" (610mm) spacing to ceiling level. MEDC recommend that the strobe be mounted in the centre of the room, with the lens pointing downwards. Alternatively the strobe may

be wall mounted provided that it is placed at least 24" (610mm) below the ceiling level with the lens pointing away from the wall. Any deviation from this requirement may result in diminished effectiveness of the strobe. Alternative installation orientations or positions should only be performed with the approval of the authority having jurisdiction. Please refer to figure 2 for the light dispersion pattern of the strobe.

### **Cable Termination**

**CAUTION:** Before removing the cover assembly, ensure that the power to the unit is isolated.

Unscrew the 3 captive screws holding the lens assembly to the base. Pull the lens away from the base. Remove to gain access to the interior.

Cable termination should be in accordance with specifications applying to the required application. MEDC recommends that all cables and cores should be correctly identified. Please refer to the wiring diagram provided with the product.

Ensure that only the correct listed or certified cable glands are used and that the assembly is shrouded and correctly earthed.

All cable glands should be of an equivalent NEMA/IP rating to that of the strobe and integrated with the unit such that this rating is maintained

The internal earth terminal, where fitted, must be used for the equipment grounding connection and the external terminal is for a supplementary bonding connection where local codes or authorities permit or require such a connection.

Once termination is complete, carefully place the lens assembly back onto the base, avoiding damage to the mating surfaces. Evenly tighten the 3 cover screws. Ensure the lens o-ring is correctly seated in it's groove during re-assembly.

## **3. OPERATION & RATINGS**

The operating voltage of the unit is stated on the unit label.

The beacon can be powered directly or initiated by a 24Vdc remote supply if requested when ordered.

## **Flash rate (DC units):**

The flash rate of the DC units can be changed by means of a movable jumper socket on the electronics assembly board. There are three positions available for the socket, giving the following flashrate options:

SP:- 60fpm (1Hz)

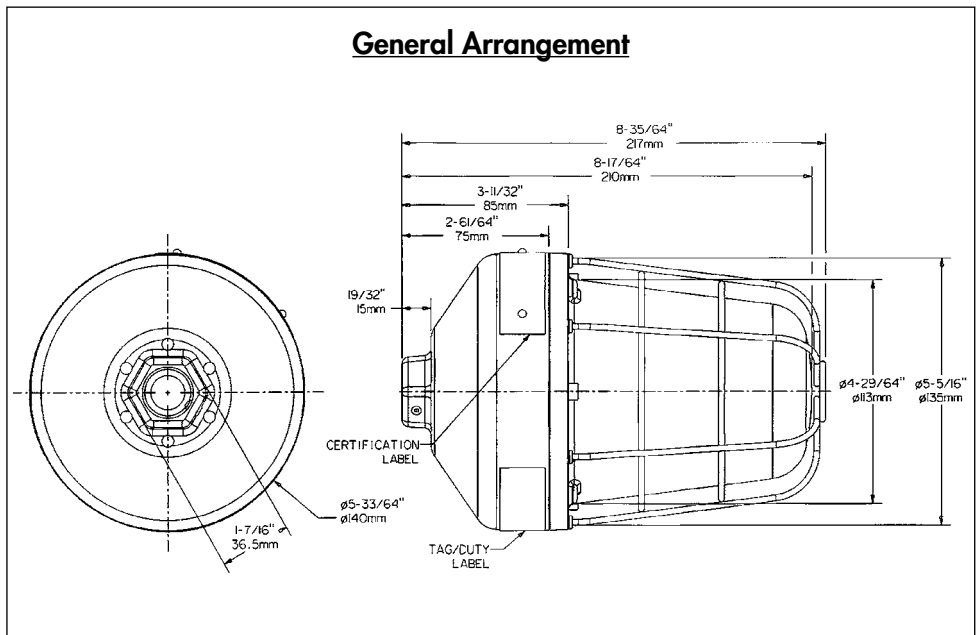
F80:- 80fpm (1.33Hz)

F120:- 120fpm (2Hz)

## **Flash rate (AC units):**

The flash rate of the AC units is fixed at the factory and cannot be adjusted by the end user.

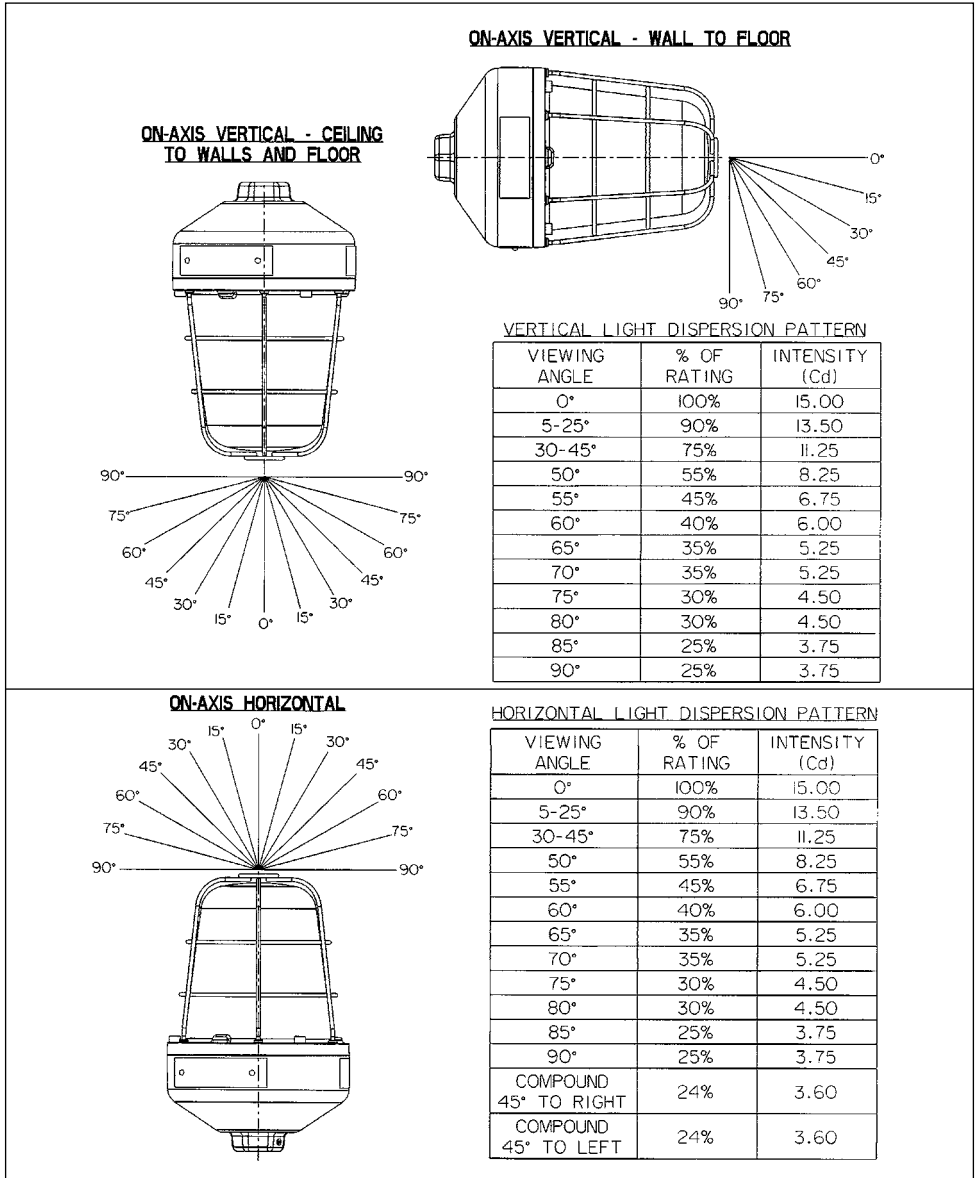
**Figure 1.**



# UL1971 RATINGS

Please note that the following light dispersion intensities are identical for all operating voltages.

**Figure 2.**



## 4. **MAINTENANCE**

### **Tube replacement:**

After extended periods of use, check the unit for degradation of the xenon flash tube. This can be seen as a darkening of the tube, which will appear at the base and gradually progress upwards over time.

The xenon flash tube may be replaced by a competent engineer using the procedure outlined below:

**Warning!** As high voltages are present during normal operation of the strobe, wait at least 5 minutes after shutting off the power before servicing the unit.

1. Disconnect the power to the unit
2. Unscrew the 3 off screws holding the lens assembly to the base enclosure
3. Gently lift the lens assembly away from the base.
4. Remove the 3 off screws and spring washers holding the electronics assembly in position. Keep the screws and spring washers in a safe accessible place.
5. Remove the inner fresnel lens by unscrewing the 2 off nuts holding it in position.
6. Hold the tube by it's base and remove it from the socket using a rocking motion. Fit new tube into position ensuring it is correctly seated in the socket.
7. Replace the internal fresnel lens ensuring the fixing nuts are fully tightened.
8. Replace the electronics assembly using the 3 off screws and spring washers, ensuring the retaining strap is correctly positioned such that it does not come into contact with any electronic components or PCB tracks
9. Replace the lens assembly onto the base enclosure, and fully tighten the 3 off captive cover screws. Ensure the o-ring is correctly seated during re-assembly.

During the working life of the unit, it should require little or no maintenance. However, if abnormal or unusual environmental conditions

occur due to plant damage or accident etc., then visual inspection is recommended.

If a unit fault should occur, then the unit can be repaired by MEDC. All parts of the unit are replaceable.

If you acquired a significant quantity of units, then it is recommended that spares are also made available. Please discuss your requirements with the Technical Sales Engineers at MEDC.

## **5. CERTIFICATION/APPROVALS**

Please refer to marking on the unit for specific approval details.

- Listed/Certified for use in USA (USL) and Canada (CNL) Class I, Div. 2, Groups A, B, C, D.  
Class II, Div. 2, Groups F & G.
  
- Standards UL 1604 – Hazardous locations  
UL 1638 – Ordinary Locations  
UL 1971 – visual signalling device  
for the hearing impaired

## **6. CERTIFIED TEMPERATURE**

-55°C to +70°C

-67°F to +158°F

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