



Technical Manual for the Junction Box – JB10/JB11UL

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 GRP terminal boxes have been designed for use in hazardous and hostile environments.

The robust design, coupled with corrosion-free GRP and high ingress protection, ensure a long life, low maintenance product.

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. MEDC recommend the use of 'HYLOMAR PL32 COMPOUND' on the threads of the stopping plugs in order to maintain the IP rating of the unit.

The unit is mounted using 4 off $\varnothing \frac{9}{32}$ " (7mm) fixing holes in the base of the unit. Units may be fixed to horizontal, vertical or angled surfaces.

MEDC recommend the use of $\varnothing \frac{1}{4}$ " (M6) stainless steel screws and anti-vibration washers.

Cable Termination

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

Unscrew and remove the 4 off M5 retained screws holding the cover assembly to the base.

Remove the cover assembly 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.

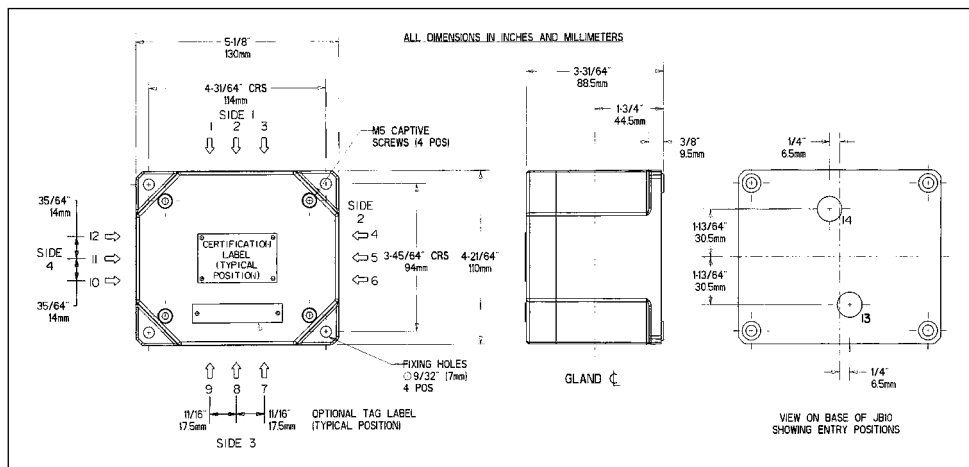
All cable glands should be of an equivalent NEMA/IP rating to that of the junction box and integrated with the unit such that this rating is maintained.

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.

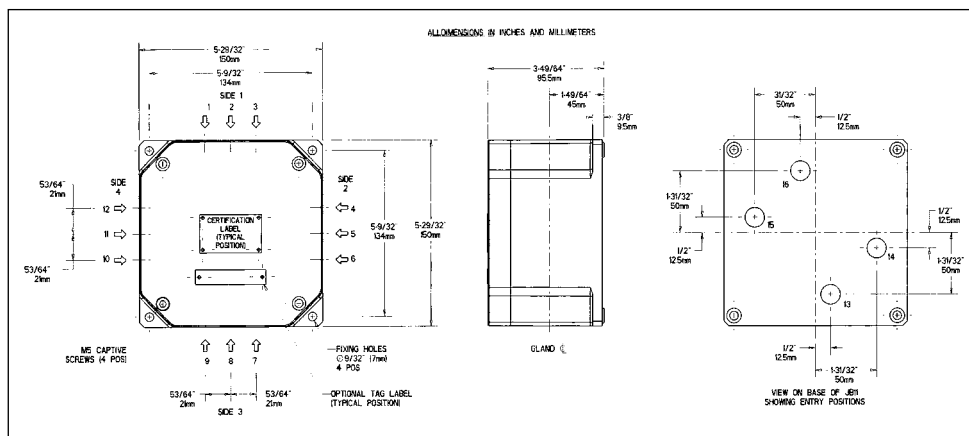
Once termination is complete, carefully replace the cover assembly back onto the base, avoiding damage to the mating surfaces and tighten the 4 off M5 cover screws (maximum torque 4Nm). Ensure the O-ring is correctly seated during re-assembly.

3. OPERATION

JB10 GENERAL ARRANGEMENT



JB11 GENERAL ARRANGEMENT



4. MAINTENANCE

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. SPECIAL CONDITIONS FOR SAFE USE

1. Partitions are to be fitted between terminals from different manufacturers.

2. Leads connected to terminals shall be insulated for the appropriate voltage, and this insulation shall extend to within 1mm of the terminal throat. For the pillar terminals this insulation shall extend to within 3mm of the metal and the bared end shall not extend beyond the other side of the slot by more than 1mm.

3. All terminal screws or terminal caps on terminals used or unused shall be tightened down.

4. Only one single or multiple stranded wiring lead shall be connected into either side of a terminal. Conductors of unequal size shall not be inserted into the same terminal post of the pillar type terminals unless specifically permitted in the component certificate of that terminal.

6. CERTIFICATION/APPROVALS

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

- Listed/Certified for use in Class I, Div. 2, Groups A, B, C & D
Class I, Zone 1, AExe IIC
- Standards UL60079-7, UL50

7. CERTIFIED TEMPERATURE

-4°F to +131°F (-20°C to +55°C) T4

-4°F to +131°F (-20°C to +55°C) T5

-67°F to +131°F (-55°C to +55°C) T5

Depending on terminals inside enclosure.