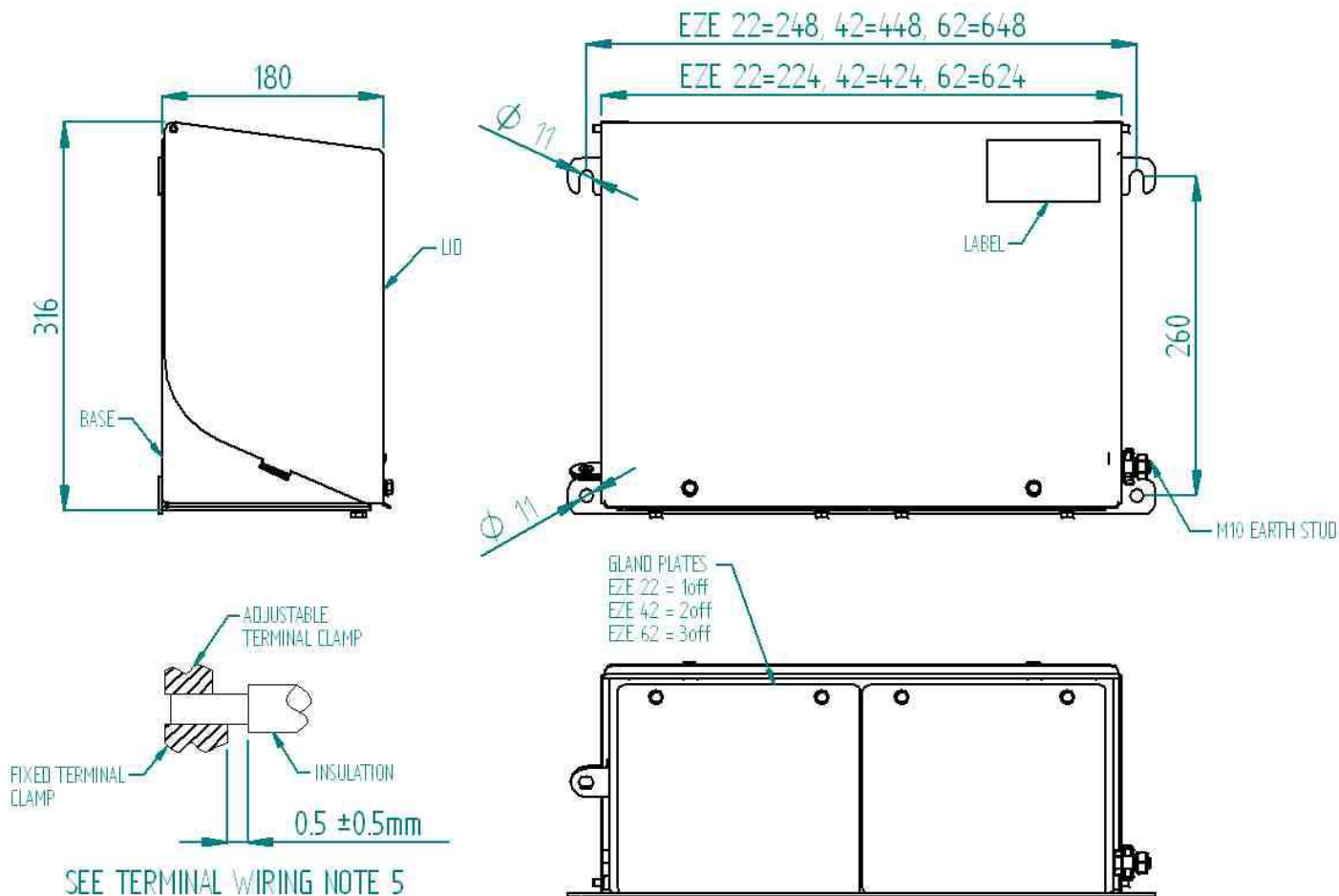


INSTALLATION & SAFETY DATA SHEET

TYPE EZE 22, 42 & 62 JUNCTION BOX

IMPORTANT: THIS DOCUMENT SHOULD BE READ CAREFULLY BEFORE COMMENCING INSTALLATION



ZONES OF USE OF TERMINAL BOX

- CAT II 2G for use in Zone 1. Areas as defined in BS EN 60079-14.
- CAT II 2D for use in Zone 21 or 22. Areas defined in EN 50281-1-2
- CAT II 3D for use in Zone 22. Areas as defined in EN 50281-1-2 (Non-Conductive Dusts)

SERVICE TEMPERATURE : -40°C to +80°C

MINIMUM INSTALLATION TEMPERATURE : -5°C

CERTIFICATION MARKING :

STANDARD JUNCTION BOX EZE 22, 42 & 62 (Including when fitted with EMC gasket and/or breather/drains that satisfy IP6*):

⊕ II 2 GD. T** EExe II T* Tamb *** Baseefa04ATEX0171X - IP 6*

ALTERNATIVE JUNCTION BOX EZE A22, A42 & A62 (When fitted with breather/drains that satisfy IP5*):

⊕ II 2G 3D T** EExe II T* Tamb *** Baseefa04ATEX0171X - IP 5*

W = Max Dissipated Wattage. N = No. of Terminals Fitted. F = Combined Terminal Resistance. I = Max Current
 NOTE: Combined Terminal Resistance = Resistance of Max Conductor Length (See BS6360 & table below) + Terminal Resistance
 $W = N \times F \times I^2$ $N = W / F \times I^2$ $I = \text{Sqrt}(W / N \times F)$

BOX TYPE	Maximum Power Dissipation (Watts)															Max. Cable Length Per Terminal (M)		
	T*	T**	T***	T*	T**	T***	T*	T**	T***	T*	T**	T***	T*	T**	T***			
	T6	80°C	-40°C +40°C	T6	80°C	-40°C +55°C	T6	80°C	-40°C +65°C	T5	80°C	-40°C +40°C	T5	80°C	-40°C +55°C		T5	80°C
EZE 22		17.7W			11W			6.6W			24.3W			17.7W			13.3W	0.425
EZE 42		27W			16.9W			10.1W			37W			27W			20.2W	0.555
EZE 62		31.5W			19.9W			11.9W			43.7W			31.8W			23.8W	0.719

TO OPEN THE LID:

1. Disconnect power (isolate all circuits).
2. Unlock padlock (if fitted) and remove.
3. Untighten the M6 lid securing screws.
4. Carefully swing the lid up on its hinges.
5. Swing out the lid prop and rest the lid's edge in the 'U' bend.
6. Tighten the screw through the hole in the lid to prevent accidental lid closure.

TO CLOSE THE LID:

1. Unscrew the lid prop screw until it clears the hole in the lid.
2. Lift the lid and swing the lid prop back inside the box.
3. Carefully close the lid.
4. Tighten the M6 lid securing screws.

TO REMOVE THE LID:

1. Disconnect power (isolate all circuits).
2. Unlock padlock (if fitted) and remove.
3. Untighten the M6 lid securing screws.
4. Screw one of the hinge grub screws inwards until it clears the hole in the lid.
5. Hold the lid securely and then screw the other grub screw inwards until it clears the hole in the lid.
6. Remove the lid and place in a area where it will not be subject to damage or moisture.

TO REPLACE THE LID:

1. Ensure inside of the lid is dry and free of dust and foreign matter.
2. Place the lid back onto the base and hold securely in position.
3. Unscrew the hinge grub screws through the holes in the lid as far as possible.
4. Tighten the M6 lid securing screws.

ENCLOSURE INSTALLATION (EI)

1. The IP rating of the enclosure must be maintained for the area of use (e.g. IP6* for Zone 21 dust environment) by the use of correct arrangement of cable / gland / sealing arrangements and in accordance with the installation codes as detailed in BS EN 60079-14, EN 50281 and these installation instructions.
2. Where other certified components are part of the assembly, the user must take account of any limitations listed on relevant certificates.
3. If an optional Breather / Drain **as listed on the enclosure certificate** is fitted the enclosure must be sited such that the Breather / Drain is pointing vertically downwards from the bottom of the box, and the IP rating of the selected Breather / Drain **shall** match the IP rating of the enclosure.
4. The enclosure may be ready supplied with cable entries. Where the customer drills cable entries they must be installed in accordance with the component certificate Baseefa04ATEX0170U enclosure limitations, these specify a maximum clearance on the entry thread of 0.7mm and where adjacent cable entries are installed sufficient clearance must be maintained to allow for the fitting of sealing / retaining washers and the rotation of the cable gland hexagons. If site drilling takes place, carefully remove any drilling debris, particularly close to seal areas.
5. All unused entry apertures must be sealed using a stopping plug **as listed on the enclosure certificate**, and also the IP rating of the junction box shall be maintained for the zone of use.
6. The apparatus must not be modified in anyway without reference to Hawke, as this will invalidate the certification, except for EI 4 & 5 and TW 9 & 10.

TERMINAL WIRING (TW)

1. All wiring must be carried out in accordance with the relevant code of practice and / or instructions e.g. BS EN 60079-14 and EN 50281.
2. The voltage and current and maximum dissipated power shown on the label must not be exceeded.
3. When used as a general purpose junction box or marshalling box the circuits carrying currents $\geq 1A$ shall be individually protected against over current such that the protective device operates effectively at no more than 1.45 times the current carrying capacity of the smallest conductor used in that circuit.
4. Where a major portion of the terminals are carrying maximum rated current, the temperature at the branching point of the conductors may exceed 70°C. Under these circumstances the installer must ensure that the limiting temperature for the cable insulation used is acceptable e.g. 85°C (T6) or 100°C (T5).
5. The wiring installation must extend to within 1mm of the metal face of the terminal, unless the relevant certificates allow more. (See terminal schedule for limitations).
All leads must be insulated for the appropriate voltage.

6. Not more than one single or multiple stranded lead shall be connected into either side of the terminals, unless the relevant component certificate allows more, or unless the multiple conductors have been previously joined in a suitable manner (for example with an insulated crimped boot lace ferrule, mounted in a vertical position) such that they form a single cohesive item for insertion into the terminal way.
A parallel shaft screwdriver of the correct size should be used.
7. Only those terminals shown on Drg. 2536 terminal schedule attached may be incorporated in the box. The installer must ensure that the conditions of use for the terminals outlined are complied with.
8. All terminal screws used and unused shall be fully tightened down.
9. The installer shall ensure creepage and clearance distances are not reduced, especially between intrinsically safe (is) and non-is circuits (e.g. 50mm clearance).
10. The use of any cross connection devices between adjacent terminal ways shall be in accordance with the requirements of the relevant component certificate listed on Drg. D2536 held on EECS File Number 0500/03/054.
11. Use of the terminal box at ambient temperatures below -20°C is dependant upon the minimum service temperature of the terminals.
12. When connecting a terminal with a conductor that is below the maximum cross section area shown for the terminal, then the maximum amps / pole must be reduced in line with the maximum amps indicated for a terminal equivalent to the conductor size being fitted e.g. for a terminal that can take a maximum conductor size of 10mm^2 at 50 Amps, but is fitted with a 4mm^2 conductor then the current shall be reduced to a maximum a 21 Amps, or the rating on the junction box lid label (whichever is the lowest)
13. Caution: Ensure that wiring does not interfere with the enclosure lid during opening and closing.

EARTHING

1. Where there is a requirement for electrical bonding of gland plate, this can be achieved by using earth tags in conjunction with cable glands or by use of earth studs. In the case of painted boxes, consideration must be given to the removal of the paint, E.g. under a serrated washer on the inside of the box which may lead to corrosion of the enclosure and potential reduction in earthing protection. This area following installation must be protected against corrosion.
2. The earth leads must be at least equal to the cross section of the largest live conductor up to 16mm^2 or a minimum of $0.5 \times$ the maximum cross sectional area of the live conductor above 35mm^2 , with a minimum cross sectional area of 16mm^2 .

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