Aluminum Alloy Junction Box Specifications

Overview

The aluminium terminal box range, HALP, with a IP 66, 67 protection degree, is available off the shelf in many different sizes.

Key Takeaways

Aluminum alloy junction boxes are robust, corrosion-resistant enclosures designed for electrical and electronic applications, available in multiple models with varying IP ratings, temperature ranges, and explosion-proof certifications.

Material and Construction

Aluminum alloy junction boxes are typically made from low-copper aluminum alloys or die-cast aluminum (e.g., ADC-12, Al-Si-Cu based), providing lightweight yet durable protection for electrical components. They often feature extruded or die-cast sides, stainless steel screws, and silicone or neoprene gaskets to ensure sealing and mechanical strength. Internal surfaces may be left unfinished to allow conductive grounding and direct mounting of heat-dissipating components.

Protection Ratings

These enclosures are designed to meet IP66/IP67 standards, offering dust-tight and water-resistant protection suitable for harsh industrial environments. Some models also comply with NEMA 4 standards for heavy-duty applications. Explosion-proof variants are available for hazardous zones, including Zone 1, 2, 21, and 22, with certifications such as Ex d IIC, Ex e II, and Ex tD A21.

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Temperature and Environmental Range

Depending on the model, aluminum alloy junction boxes can operate in temperatures from -40°C to +150°C, with performance influenced by gasket type, terminal selection, and enclosure size. The material provides moderate heat dissipation, allowing components to be mounted directly to the case for thermal management.

Models and Series

Cortem S Series: Offers a wide variety of models with screw-on lids, safety fastening grub screws, and ISO 7/1 threaded entries. Suitable for multi-pole terminal strips and modular terminals.

Raychem RPG Die-

Cast Boxes: Industrial-grade, IP66-rated enclosures for general factory wiring protection.nVent HOFFMAN Aluminum Terminal Boxes: Designed for electrical equipment protection with options for expedited delivery and instant quoting. Mouser Electronics Range: Includes multiple sizes and datasheets for die-cast and extruded aluminum boxes, suitable for mounting electronic components and controllers.

Global

Spec aluKOM Series: Heavy-duty, watertight IP66 enclosures, ideal for electronics and terminal mounting, with shock-resistant design. Key FeaturesExplosion-proof and hazardous area certifications for industrial safety. Screw-on or detachable lids for easy maintenance and assembly.

Wide size range to accommodate various electrical and electronic components. Robust mechanical design to withstand industrial abuse and environmental stress. Aluminum alloy junction boxes are versatile enclosures suitable for industrial, commercial, and hazardous applications, offering durability, corrosion resistance, and high ingress protection, with multiple models tailored to specific operational requirements.

Article Content

Aluminum Terminal and Junction Boxes

The aluminium terminal box range, HALP, with a IP 66, 67 protection degree, is available off the shelf in many different sizes. The HALP range is well suited for indoor and outdoor environments thanks to

Aluminum Terminal and Junction Boxes | nVent HOFFMAN

Aluminum is a lightweight material resulting in an enclosure that is easier to handle, modify and move Durable material with high impact resistance, aluminum can provide a strong solution for heavy

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Aluminium Junction Box – Industrial Enclosure IP66 for Harsh

Aluminium Junction Box is an industrial enclosure with IP66 protection and superior EMC shielding for demanding environments. Datasheet and CAD files available. Download technical details or request

DIECAST ALUMINIUM TERMINAL JUNCTION BOX

IP65 protection class and impact resistant diecast aluminium terminal junction box. Diecast aluminum box has superior heat dissipation, heat resistance, and oil resistance compared to plastic boxes.

Products

EJB series junction boxes are suitable for installation in any areas of a plant where there is a risk of explosion and/or classified as Zone 1, 2, 21, 22. The quality of this product is recognized and valued

SP-AG IP65 Metal Aluminum Alloy Electrical Junction Boxes

Aluminium alloy die-castingforming, high temperature resistant, Corrosion-Proof, can be used in harsh environments. Surface Treatment: Frosting (light gray), smooth (steel grey).

Terminal Boxes Ex d, Aluminum F* TB

All product-related documents, such as certificates, declarations of conformity, etc., which were issued prior to the conversion under the name Pepperl+Fuchs GmbH or Pepperl+Fuchs AG, also apply to

Solutions Ex d IIB or CID1 / CIID1 based on Aluminum Enclosures

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see

6005/6005A Aluminum T5/T6 Extrusions – Electrical & Industrial ...

Explore 6005/6005A aluminum T5/T6 extruded profiles, ideal for electrical supports, industrial frameworks, and GIL corridor structures. Custom sizes and finishes available.

RS PRO 5174229 Enclosure Junction Box 5

IP65 Powder CoatedDiecast aluminium alloy (LM2, BS1490) Provided with a neoprene self-adhesive seal which gives protection to IP65 when fittedStainless steel M3.5 fixing screwsMinimum Wall

Zoobla | JAZ-DP98 Junction Box/Ceiling Mount Bracket for Dome

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The Zoobla JAZ-DP98 Junction Box is a professional-grade inclined ceiling mount bracket designed specifically for dome cameras. Crafted from durable aluminum alloy, this white bracket features a

Radio Aluminum Housing Buyer''s Guide: Specs, Ratings & Sourcing

Compare aluminum radio housings by EMF/RFI shielding, thermal performance, IP65/IP67 ratings, recycled content, and B2B availability—plus how to select the right enclosure for digital radio gear.

nVent HOFFMAN A18P16AL Internal Panel, for Junction Box, fits 18x16 Box ...

Aluminum panels are 5052-H32 aluminum alloy 0.080-in. (2-mm) thick and protected on one side with a plastic film. Panel mounting hardware is furnished with all enclosures which accept these panels.

CCTV Wall Mount Bracket Durable Aluminum Alloy Hikvision

The HIKVISION DS-1273ZJ-130B-TRL Wall Mount with Junction Box is available now for immediate purchase. Ideal for CCTV camera installations in residential and commercial security systems.

Aluminium Enclosures

Metalmech Engineering is India''s leading manufacturer & supplier of Enclosure Box, Aluminium Enclosures, IP66 Electrical Junction Boxes, IP68 Electrical Enclosure

RS PRO 5173355 Enclosure Junction Box 7

Diecast Aluminium Enclosure, EMI/RFI ShieldedDiecast aluminium alloy (LM24, BS1490)Lid with lip ensures EMI/RFI screening better than 40dB at 10MHz and 76dB at 100kHzZinc plated mild steel

Ex d Junction Box Aluminium EJB-A | Supermec

EJB A series Ex d enclosures are normally used in the chemical and petrochemical plants, offshore platforms, refineries and any other industry where hazardous atmospheres (gas and combustible

Junction Box with Terminals, JBE1 Series

Application The JBE1 junction boxes are designed for tap, splice or connecting of conductors for control, instrument or power circuit. These boxes are designed for explosive atmospheres zone 1, 2 and zone

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