

## **Abox XT enclosure protects against submersion with a removable resin**

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**Enclosure manufacturer Spelsberg has released a new waterproof junction box that protects wiring and electrical components when water submerged. The new Abox XT uses a removable resin protection that enables maintenance and inspection, as well as enclosure reuse, after the resin has been inserted. Rated to IP68, the resin protection also makes the waterproof enclosure significantly less expensive than alternative IP68 enclosures that use pressure-protected lids and seals.**

A significant advantage of the Abox XT design is that the enclosure is reusable and enables subsequent inspection and maintenance on the terminals within. Water ingress protection is achieved thanks to a special resin filling, inserted into the enclosure during installation. The resin always remains semi-pliable, meaning that it can be scraped away in future. This enables the enclosure to remain in place if maintenance is required, or if wiring or components require a subsequent check. With the resin removed and the inspection or maintenance complete, the enclosure can then be refilled with resin.

The resin is inserted into the enclosure after the wiring has been completed at the terminals. With the enclosure lid secured, resin is poured into the enclosure via a funnel entry while an opposing exit allows air to escape, establishing a protective seal. The resin covers the terminals without penetrating or damaging them, while achieving an effective seal against water submersion.

Other enclosure designs that use a sealant to achieve IP68 protection typically use compounds that dry solid after cure. This prevents the reuse of the enclosure, or inspection and maintenance on the terminals within, as the sealant cannot be removed without damaging the housing, wiring, or components. This forces the enclosure and its contents to be scrapped and replaced.

However, Spelsberg's resin sealant-approach to submersion protection still achieves IP68 protection but is significantly less expensive than specialised water submersion enclosure designs. Compared to the Abox XT, these alternative housings carry a premium as a result of a complex design that counteracts pressure forces against the enclosure lid and seals.

Constructed from highly durable polycarbonate, Spelsberg's Abox XT also achieves a high level IK09 impact resistance rating. This material also means the enclosure is lightweight, making it easy to handle and install.

Thanks to its water submersion protection and durable construction, the Abox XT junction box is designed for use in underground and floodplain environments, as well as applications with a risk of submersion. The enclosure is ideal for marine applications, such as harbour installation, where electrical junctions are required within the power supply for lighting or equipment such as cranes or winches. Abox XT can also be in residential and municipal aquatic applications, such as ponds and lakes where power sources might be required for pumps, filtration systems, fountain effects, and lighting. The enclosures have also been used on traffic light systems in areas prone to flooding, as well as street lighting and within tunnels.

Abox XT is provided with standard terminals as well as fast-to-install screwless terminals from Wago. The screwless terminal variant is available in sizes 92mm x 92mm x 60mm, as well as a larger 102mm x 102mm x 70mm. The standard screw terminal variant is available in sizes 127mm x 127mm x 75mm, as well as 152mm x 152mm x 85mm. Find out more about [Spelsberg's Abox XT here](#).

**Image captions:**



**Image 1:** Spelsberg Abox XT waterproof enclosure uses a removable resin protection that enables maintenance and inspection.

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## **About Spelsberg**

Spelsberg is one of the largest manufacturers of electrical enclosures in the world. With over 4,000 enclosures available as standard and further customisation possible, it offers solutions for almost any application.

With the largest supply of non-metallic enclosures, ex-stock in the UK, its products are often available for delivery within 24 hours; customisation is possible on any product, including bespoke entries, engraved corporate logos or fitted terminals, within 48 hours. Products can be ordered direct from Spelsberg or from most leading supply specialists including RS, Rapid, Farnell and CPC.

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