**NEWS ARTICLE**

World-first corrosion-resistant flameproof junction box nominated for HazardEx Technical Innovation Award 2024

**05 February 2024:** The world’s first polymeric, corrosion-resistant, direct-entry, flameproof junction box from Pratley has been nominated for the 2024 HazardEx Awards in the category of Technical Innovation, reveals **Eldon Kruger**, [Pratley](http://www.pratleyelectrical.com) Marketing Director.

A total of five nominees have been shortlisted in this category, which is aimed at recognising excellence in the hazardous areas sector. The winners will be announced during a Gala Dinner at the HazardEx Live 2024 Expo on 28 February 2024 in Harrogate, United Kingdom.

After being launched in 2023, the Flameproof Ex d Envirobox® junction box has already received the prestigious ‘Technical Product Innovation’ award from the South African Flameproof Association (SAFA). Pratley’s Flameproof Ex d Envirobox® junction box is a major milestone for the electrical hazardous areas industry. “It is a new product unlike any other in the world,” says Eldon.

Flameproof equipment is designed to ensure that internal ignition within a flammable atmosphere is prevented from transmitting outside the protective enclosure. However, all traditional direct-entry flameproof junction boxes made from steel, cast iron or aluminium materials can be prone to corrosion over time when used in very harsh environments.

The new Flameproof Ex d Envirobox® junction box is made from a specially formulated, robust engineering polymer and is designed to withstand severe environmental conditions. It is ideal for use in areas with a high risk of corrosion, such as offshore oil platforms, underground mines, and petrochemical plants.

The specially formulated, robust engineering polymer is unique to Pratley. The material has exceptional mechanical properties such as strength, stiffness, creep, dimensional stability and more. This ensures that the junction box can withstand 2 x 20-joule impact tests in a staggering -40°C environment.

It has been third-party tested to a massive 4 000-kilopascal internal pressure. Additionally, it is IP66/68 certified for continuous underwater depths of up to 300m, making it water, dust, and gastight. The lid and base have an accurately machined flamepath.

The junction box can be supplied with either 4 x 20mm or 25mm entries or smaller on request. It can accommodate Pratley Ex d flameproof cable glands and accessories and is therefore exceptionally versatile. Each box is supplied as a standard two-way box with 2 x flameproof blanking plugs.

The internal bosses are drilled and tapped to provide an earthing point for terminal mounting rails or earth lugs. These are electrically connected to the box entries providing complete earthing continuity.

Boxes can be fitted with an N35 terminal rail, a Pratley patented Cranked rail, an inverted Cranked rail, or Piggyback rails. Pratley Kwikblok® terminals and pre-cut lengths of cable with glands can also be factory fitted to customer requirements.

It has an optional external earthing point and is supplied with 4 x M6 Nuts and washers as well as a 1 x M6 Spring washer. The box has threaded mounting M5 holes and can accommodate an indexable mounting plate that can be purchased separately if required.

The Flameproof Ex d Envirobox® is fully certified to SANS, EN and IECEx Standards, including ATEX and UKCA for use on surface and underground mining applications (Ex db I/IIB+H2 T6..T5 Mb Gb, Ex tb IIIC T85..T100 Db) in Zone 1, 2, 21 & 22 and an ambient temperature range of -40°C to +55°C.

“Pratley’s goal was to produce the only direct entry junction box that is corrosion resistant. The launch of the Flameproof Ex d Envirobox® marks yet another word-first product for Pratley,” concludes Eldon.

For more information visit: <https://data.imlgroup.uk/hazardex-awards-2024/>.

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**Notes to the editor**

To download hi-res images for this release, please visit <http://media.ngage.co.za> and click on the Pratley Group link to view the company’s press office.

**About Pratley**Established in 1948 by George ‘Monty’ Pratley, the various companies in the Pratley stable rest on a foundation of research and innovation in both the manufacturing and mining sectors. The various Pratley companies, drawing from 75 years of experience, have filed over 350 patents worldwide, and are ISO 9001 certified. Operating divisions include Pratley Adhesives, Pratley Electrical and, Pratley Minerals.

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