



Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Hydro Group Ltd.
Address	Aberdeen Science & Energy Park, Hydro House, Claymore Avenue, Aberdeen, AB23 8GW, United Kingdom
Type	Submersible Pressure Hull Electrical Penetrators
Description	HBE Diving Bell Penetrators: HPS-297/95/TA, 1"UNF HPS-297/125/TA, 1"UNF HPS-298/95/TA, 1¾"UNF Configuration: Moulded Right Angle (-1) Moulded In-Line (-2)
Trade Name	Electrical Penetrators for use on Diving Bells and Deck Decompression Chambers (DDC) Systems to a working depth of 650m MSW
Application	Diving Bells and Deck Decompression Chambers
Specified Standard	Lloyd's Register Rules and Regulations for the Construction and Classification of Submersibles and Diving Systems (2016)

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Ratings

Working Depth (metres): 650msw
Working Temperature (°C): -40°C to 60°C
Working Voltage (V): 500V

Other Conditions

1. Penetrators are to be selected and installed in accordance with the manufacturer's instructions and recommendations.
2. The certificate is not valid for equipment, the design, ratings or operating parameters which have been varied from the original designs submitted for design review and testing at various accredited test facilities. The manufacturer should inform Lloyd's Register of any modification or changes to the equipment in order to obtain a valid certificate.
3. The Type Approval Design Appraisal Document no: UKI/ENG/TA/WD/PRJ11100434171 and the Supplementary Type Approval Terms and Conditions form part of this Certificate.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document and its supplementary Type Approval Terms and Conditions form part of this Certificate.