

# Durable Fibre-optic Penetrators



BIRNS, USA, has launched a new line of innovative fibre-optic penetrators that blends massive data capabilities with extreme durability. The versatile design is tailored for the rigours of the subsea environment and can be adapted to a wide range of different cables.

These high-performance optic penetrators come standard with pressure rating of 70 bar (1,000 PSI/2,300 FSW), but can be specified to a higher rating, depending on the application, from ROV and AUV use to defence submersibles and sonar arrays. They are meticulously engineered to enable reliable fibre transmission through a bulkhead and are extremely durable - they are constructed of AISI 316 stainless steel that's passivated per ASTM A967-05. They are rated for use up to 80°C (176°F) when fabricated with neoprene (polychloroprene) cable jackets, or up to 95°C (203°F) with optional CSPE cable jackets.

The line has extremely low insertion loss (<0.1 dB per channel), and conversely high return loss (>65 dB per channel.) Like all BIRNS penetrators, they meet or exceed ABS and DNV requirements when fabricated with Low Smoke Zero Halogen (LSZH) cables inboard, and are each individually serialised, certified and tested in accordance with BIRNS' ABS-approved test procedure ETP-6510-101.

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