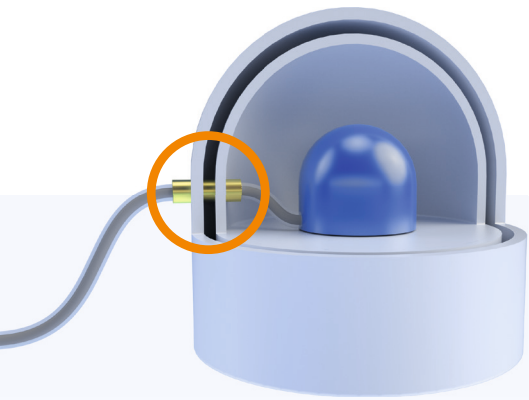
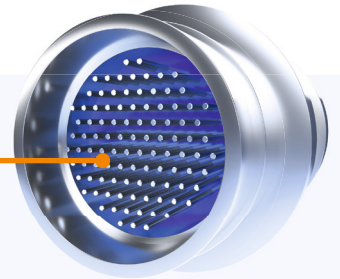


# Save and be safe

Reducing total cost of ownership and enhancing safety with glass-to-metal sealed electrical penetrations for nuclear power plants



**Inorganic specialty glass**



SCHOTT has produced a containment seal that **does not degrade** over time because it is made of **inorganic specialty glass and metal**. These seals are able to withstand severe accident conditions like those at Fukushima, even decades after their installation.



**60-year maintenance-free lifetime**



**Temperature tested to withstand 400°C**



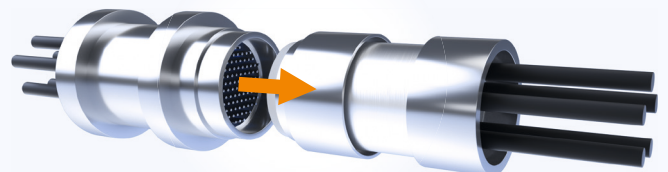
**Pressure tested to 400 Bar**

**i** Designed to withstand severe accident conditions

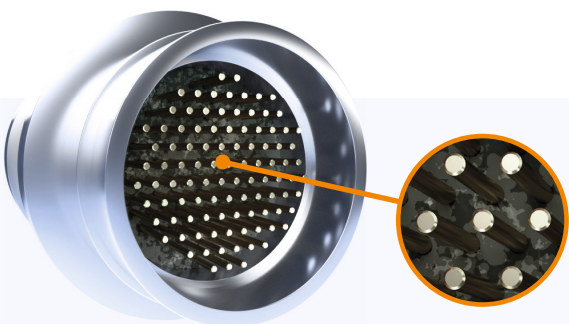


Fukushima Daiichi

**over 12,000 penetrations installed globally**



Glass-sealed electrical penetrations are proven with maintenance-free performance in over 50 nuclear plants worldwide.



**Long-lasting alternative to polymer seals**

Polymer-based epoxy seals are made of organic material and must be replaced at regular intervals over the lifespan of a reactor.

**Contributes to lower total cost of ownership**

Glass-sealed components are inorganic and do not deteriorate over time, lasting upwards of 60 years. Epoxy seals are made of organic material and must be replaced at regular intervals over the lifespan of a reactor.



**Supporting efficiency and longevity of nuclear power**

1. Glass-to-metal sealed penetrations have a 60-year qualified lifespan – the same as most modern reactors.
2. Glass-to-metal seals are maintenance-free, negating the need for replacements that can lead to plant shutdowns which can cost over €1m per day.
3. Polymer seals can require complete replacement in as little as 10-20 years and may need maintenance and upkeep leading to plant shutdowns at even shorter intervals.

