SCHOTT Battery Endseals

Product Information

An increasing number of electronic devices are deployed in industrial and safety engineering applications. Due to the harsh and often inaccessible environmental conditions, such as demanding temperature profiles, these devices rely on batteries as an independent supply of power.

Batteries convert stored chemical energy into electrical energy. Depending on the type of battery, the chemical combination varies. Lithium thionyl chloride (LiSOCl₂) battery, for example, is a primary battery with very high energy density. Due to the low self-discharge rate, it is used in a number of emergency and safety applications such as utility monitoring, meteorology and alarm systems. Although lithium and thionyl chloride are extremely aggressive substances, the batteries can be reliably protected over long periods of time using special types of glass and metal that are highly resistant to both corrosion and chemicals. SCHOTT’s glass-to-metal sealed feedthroughs ensure that the batteries are hermetically sealed and that power is conducted efficiently.

Advantages

SCHOTT’s battery endseals are custom-made and we leverage upon our unique strengths to offer to customers a mix of carefully selected glass and metal materials for their applications.

• Proven glass-to-metal sealing (GTMS) technology: Employed in a wide spectrum of applications since 1939
• Trusted by the battery industry: More than 15 years of product-in-field technical data
• High safety standard: Reliable seal performance so that there is no leakage of electrolyte over the service lifetime of the battery
• In-house experience in glass technology and development know-how: Specially developed glass type for LiSOCl₂, batteries is still the preferred choice for customers who demand high reliability
• Vertically integrated production: From materials manufacturing to processing, SCHOTT’s full-scale capability provides assurance of the product’s superior quality

Technical Information

Gas-tight: $1 \times 10^{-8}$ mbar x l/s

Temperature stability:
–60 °C to 150 °C

Pressure resistance: High

Chemical resistance: High

Mechanical resistance: High