



Ruggedized crystals design are mainly used in the fields of petroleum logging and geological exploration. Due to the harsh environment to be involved like high temperature above 150 degree C, certain shock and vibration, these crystals have to be applying with unique resistant material and special package technology.

Epic Crystal offer series of ruggedized crystals including NaI(Tl), CsI(Na), LaBr<sub>3</sub>(Ce) and CeBr<sub>3</sub>. They have excellent mechanical shock resistance, temperature shock resistance and long lifetime. Whether used in wireline or measurement while drilling(MWD), our crystals are good choice for both reliability and performance.

## Specifications

Encapsulation	<ul style="list-style-type: none"> <li>● Titanium housing with welded sapphire window</li> </ul>
Temperature(operating)	<ul style="list-style-type: none"> <li>● -30-175 degree C</li> </ul>
Vibration(max)	<ul style="list-style-type: none"> <li>● 30 g rms, 50-1000 Hz</li> </ul>
Shock	<ul style="list-style-type: none"> <li>● 1000g@1ms</li> </ul>
Crystal type	<ul style="list-style-type: none"> <li>● Hot forged polycrystalline NaI(Tl)</li> </ul>
Crystal/Glass coupling	<ul style="list-style-type: none"> <li>● Special Light guide</li> </ul>
Available crystal size	<ul style="list-style-type: none"> <li>● Diameter: 10mm through 30.5mm</li> <li>● Length: sizes up to 200mm</li> </ul>

- Custom Temperature, Shock, and Vibration Standard Design Specifications available upon request.
- Aluminium and Stainless Steel housing with high temperature epoxy resin sealed window for general logging is available.