

High-Voltage Mercury-Wetted Reed Relay (HGFR Series)

Model: HGFR Series

Product Overview

Mercury-wetted high-voltage relays combining zero-bounce characteristics with 5,000V DC standoff isolation for pulse generation and laser drivers.

Key Features

- High dielectric breakdown voltage up to 5,000V DC across contacts
- Zero contact bounce eliminates waveform distortion in fast-pulse generators
- Stable dynamic contact resistance under high-energy discharge pulses
- Low thermal EMF (<5 uV) for ultra-sensitive microvolt signal switching
- Rugged metal can or epoxy encapsulated assembly

Typical Applications

- Automotive & Commercial Vehicles
- Industrial Machinery & Automation
- Electric Vehicles (EV & FCEV)
- Safety Interlocks & Control Systems

Technical Specifications

Parameter	Specification / Technical Value
Breakdown Voltage	Up to 5,000V DC
Switching Voltage	Up to 2,500V DC
Switching Current	Max 2.0A / Pulse Current up to 10A
Contact Resistance	< 25 mOhm
Coil Voltage	12V DC / 24V DC
Operating Temp	-38°C to +85°C (Above mercury freezing point)