



EMCARA

EMCARA GAS DEVELOPMENT INC.

Safety Technology for Alternative Fuel Systems

10,000 PSI LONG TRIGGER PRD - HYDROGEN LT22X Series

FEATURES

As the use of Hydrogen gained momentum, it was a natural progression for Emcara to create a Long Trigger, Hydrogen ready thermally activated Pressure Relief Device (HPRD). Our 10,000 psi PRD is the only thermally activated, Long Trigger Pressure Relief Device specifically designed for use with Hydrogen systems. Surface finishes, material treatments and internal mechanisms are designed to prevent Hydrogen embrittlement and operate at the higher pressures that are inherent with Hydrogen systems. Trigger lengths are comparable with Emcara's Viper PRD (up to 45 feet). Every 10,000 psi pressure relief device is tested for dimensional compliance and to exacting performance standards.

PERFORMANCE & GEOMETRY

Gas Type: Hydrogen

Pressure: 10,000 psi nominal

Activation Temperature: 110 °C

Activation Time: 30 seconds

Flow Rate: 970 SLPM (per HPRD1)

Minimum Exposure Length: 12"

Body Size: 1.5" x 2" x 2.25" / 37mm x 51mm x 57mm

Inlet Connection: 9/16" HP Port

Outlet Connection: SAE J1926-8 Port

Body Construction: Blue Anodized Aluminum

Tests that have been performed on Emcara's Hydrogen PRD:

- Cycle test with Nitrogen at 13,500 psi
- Hydro test at 22,500 psi
- Drop test based on HPRD1
- Bonfire test with a 1 m long trigger line with Nitrogen & Hydrogen
- Thermal activation test with Hydrogen
- Leak test based on HPRD1 with Hydrogen and Nitrogen

Tests that have been conducted on trigger mechanism

(All tests based on PRD1 Standard):

- Accelerated life test
- Accelerated cyclic corrosion test
- Automotive fluid exposure
- Atmospheric exposure
- Drop and vibration test
- Bench top activation test



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INNOVATIVE THINKING AND PRODUCTS
BULK HAUL, FUEL SYSTEMS, GROUND STORAGE

