



ZeroDT 12-2

The design of the ZeroDT 12-2 utilizes the latest generation, non-degrading Silicon Avalanche Suppression Diode (SASD) stack array encapsulated in urethane, to protect transmitters, gas detection sensors & systems, level equipment, flow measurement devices as well as other field instrumentation transient over-voltages. This SASD technology provides continuous, bi-directional (eliminating installation issues), and bi-polar (both positive and negative) protection that returns to its original state (no loss or degradation of protection) once the over-voltage has passed. The unit is designed to limit the energy of these over-voltage surges on 4-20 mA current loops, and RS-485/422, DeviceNet, Fieldbus communication lines as well as low voltage DC power lines.

The module is small enough to allow it to be mounted directly into a measurement device's explosion-proof housing or other small electrical housings, eliminating the need for additional enclosures and getting the protection as close as possible to the device to allow for the best possible protection.

Electrical Specifications:

Response Time: <5 nanoseconds

Configuration: parallel connected -- protects 2 pair or 4 wires

Nominal Operating Voltage: 12 V dc

Maximum Continuous Operating Voltage (MCOV) Line-to-Ground: 18 V dc

Nominal Surge Current, I_{Nom} (able to withstand repeated applications):

8/20 µs (IEEE/ANSI C62.41 Combination Wave), Line-to-Ground: >600 Amps

10/1000 µs (IEEE/ANSI C62.41 Long Wave), Line-to-Ground: >65 Amps

Voltage Protection Level (VPL):

600 Amps, 8/20 µs, Line-to-Ground: ≤55 V_{peak}

65 Amps, 10/1000 µs, Line-to-Ground: ≤65 V_{peak}

Mechanical Specifications:

Module Dimensions: 0.74" H x 0.79" W x 0.5" D (18.7 mm H x 25.1 mm W x 12.7 mm D) **Wire Leads:** #16 AWG stranded copper, 12 inches (allows cutting to length)

- Qty. 2 Red -- Positive or Negative
- Qty. 2 White -- Positive or Negative
- Qty. 1 Green -- Ground / Earth

Environmental Specifications:

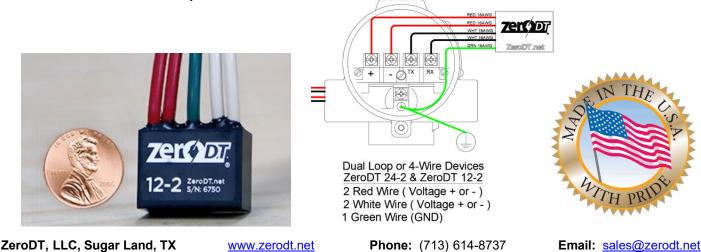
Operating / Storage Temperature: -40°C to +80°C

Humidity: 0 to 95% non-condensing

Certifications:

UL Listed – Isolated Loop Circuit Protector (E499683)

UL Listed -- Isolated Loop Circuit Protector for use in Hazardous Locations (E502612) Class 1, Division 2, Groups A, B, C and D Hazardous Locations (T6) T_{amb} = -40°C to 80°C RoHS Compliant



Two Pair Instrument Surge Protection

Model: ZeroDT 12-2,



Isolated Loop Protector E499683

Isolated Loop Circuit Protector – For Use in Hazardous Locations E502612

Class1, Division 2, Groups A-D Hazardous Locations (T6) T_{amb} = -40°C to +80°C

