DAIRYLAND ELECTRICAL INDUSTRIES

ISOLATE. GROUND. PROTECT.

OVP DATA SHEET

The DEI Over-Voltage Protector line consists of OVP and OVP2 products for Division 1 and Division 2, Zone 2 hazardous locations, providing excellent protection for insulated joints and other points where transient voltage must be limited. The OVP product line is certified for Division 1 and Division 2 (and Zone 2) areas while the OVP2 line is certified for Division 2 and Zone 2 areas. Unlike "arrester" type products, the OVP is a solid-state device with full ratings for AC current as well as high levels of lightning surge current. As the device goes into conduction at low voltage, it provides much better protection than gapped devices or metal-oxide varistors.

Note: The OVP must not be used where steady-state AC voltage is present (or could be in the future) between the two connection points. If present, use a decoupling device such as the SSD, PCR, or PCRH.

Features and Characteristics

- The only fail-safe "arrester" on the market
- Solid-state design eliminates arcing
- Conduction at much lower voltages than gapped arresters
- Rated for AC fault current and lightning surge current
- Suitable for submersed or above-ground locations
- UL, C-UL listed Div. 1 & 2 design, CE marked for ATEX compliance for Zone 2
- Corrosion resistant nickel finish

Typical Applications

- Insulated Joint Protection
- Airport Fueling Systems Isolation/Bonding

Why Conductor Length Is Important:

Over-voltage protection is greatly affected by the proximity of the device relative to an insulated joint or other structure being protected. This effect is independent of the protective device being used, as it is mainly due to the length of the conductor. When lightning current flows in a conductor, the inherent inductance of the conductor develops a large voltage, which appears between the two connection points. If this voltage is in excess of the insulation or coating strength, arcing will occur.

A suggested guideline for conductor length, due to these factors, is a total of 12" (300mm) including both conductors. This may not be possible in some cases, but the length should still be kept as short as possible. Low inductance bus bar mounting systems are available from DEI.

Ratings and Certifications

Threshold Voltage (absolute)
-3/+1V (standard)
-2/+2V (standard)
Up to -4/+4V (optional)
Lightning Surge Current
100kA crest (8 x 20 µs waveform)

AC Fault Current (amperes-rms, 30 cycles)
3,700 @ 60Hz 3,500 @ 50Hz

Environmental rating: NEMA 6P - submersible

Hazardous Location Certifications:

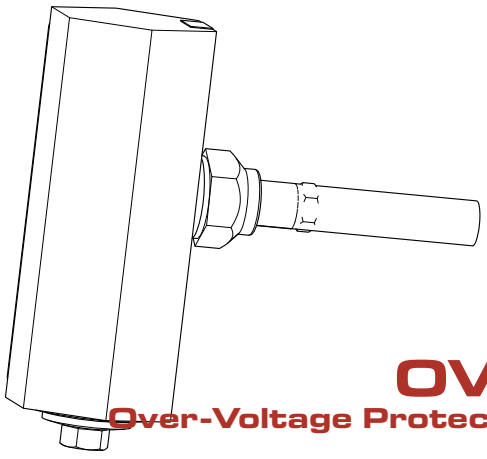
Rating	Certification Agency
Class I, Division 1 & 2, Groups B, C, D Temp Code T6	UL, C-UL
Zone 2 - ATEX Directive, Groups II Temp Code T6	Demko/UL

Certification Agencies:

- Underwriter's Laboratories (UL)
- Underwriter's Laboratories - Canada (C-UL)
- Demko, CE Marked

Example Model Numbers:
OVP-2/2-3.7-100
OVP-3/1-3.7-100

For all model numbers, options and accessories, see full technical literature at www.dairyland.com



OVP
Over-Voltage Protector