



Over-Voltage Protector 2 (OVP2)

Data Sheet

The Dairyland Over-Voltage Protector line consists of OVP and OVP2 models. The OVP is certified for use in Class I, Division 1 and 2, and Zone 1 and 2 hazardous locations and the OVP2 in Class I, Division 2, and Zone 2 hazardous locations. This data sheet pertains to the OVP2.

These products are primarily used in cathodically protected systems to provide over-voltage protection of insulated joints from lightning and AC faults and to provide AC grounding and simultaneous DC isolation of electrical equipment integral to a cathodically protected system. Unlike “arrester” type products, the OVP2 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 OVP2 must not be used where steady-state AC voltage is present between the two connection points (or could be in the future) under normal operating conditions. If AC voltage is present, use a decoupling device such as the SSD, PCR, or PCRH models.

Features:

- 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 certified for Class I, Div. 2. UL/DEMKO certified and CE marked for ATEX compliance for zone 2
- Corrosion-free, lightweight molded housing

Typical Applications

- Insulated joint protection
- Tank isolation/bonding
- AC grounding/DC isolation of equipment

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 Dairyland.

Ratings and Certifications

Threshold Voltage (absolute)

-2/+2V (standard) -3/+1V (optional)

AC Fault Current (amperes-rms) 50/60 Hz (30 Cycles)

1.2kA, 2.0kA, 3.7kA, 5kA

Lightning Surge Current

1.2kA Models: 75kA crest (4 x 10 µs waveform)

All Other Models: 100kA crest (4 x 10 µs waveform)

Environmental rating

IP68 - Submersible (to 2m depth)

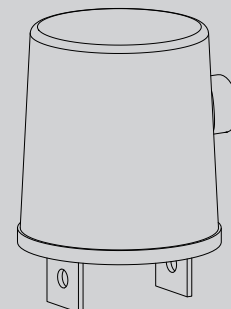
Hazardous Location Certifications:	
Rating	Certification Agency
Class I, Division 2 Groups A, B, C, D Temp Code T5	UL, C-UL
Class 1, Zone 2 - ATEX Directive Groups IIC, IECEx, Temp Code T5	UL/DEMKO

Example Model Numbers:

OVP2-2/2-1.2-75

OVP2-3/1-3.7-100

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



OVP2
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