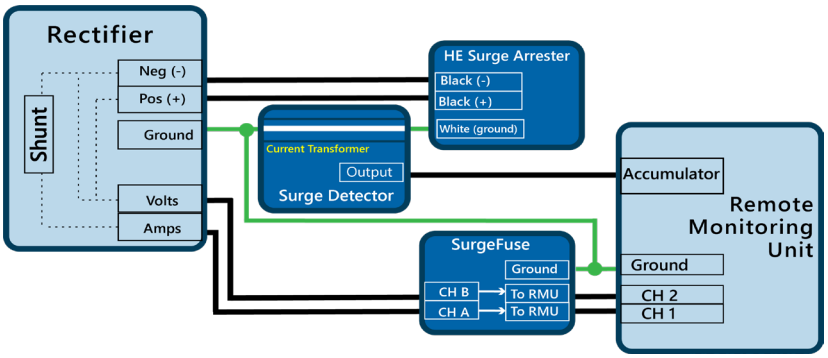
Bullhorn Monitoring

SurgeProtect For Remote Monitors

Ensure Your Remote Monitoring Units (RMUs) and Rectifiers Are Safe From Electrical Surge Events

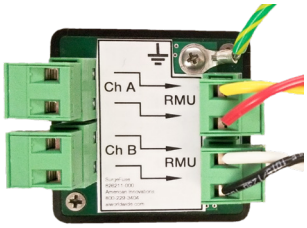
Use the Surge Arrester, SurgeFuse and SurgeDetector individually or together to keep your equipment operational with less downtime.



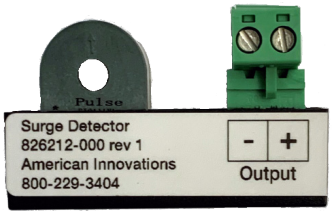
Our SurgeDetector works with cloud-based asset management software Bullhorn Web to track the number of surge events affecting remote monitors to make timely decisions on replacement.

For more information, visit go.aiworldwide.com/surgeprotect.

High Energy Surge Arrester (HESA) – Our HESA is designed with a full 40 kA surge capability, four times the level of traditional secondary surge arresters. It incorporates Metal Oxide Varistors to ensure superior energy handling for long service life even in the most severe conditions, and is fully enclosed in a stainless steel housing.



SurgeFuse – This powerful device is installed between rectifier outputs and RMU inputs. When a surge event exceeds the HESA's capabilities, SurgeFuse intentionally breaks to stop the electrical current from damaging the RMU.



SurgeDetector – This device detects and logs high energy surge events. Users can track surge events over time using their RMUs over via Bullhorn Web. HESAs can degrade over time, so it is critical to understand the number of surge occurrences to determine when replacement is necessary.

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SurgeProtect for Remote Monitors: Technical Specifications

High Energy Surge Arrester

Performance Test Characteristics[1]

Description	Characteristic
High-current, short duration:	2 discharges of 40 kA crest, 4/10 µs
Low-current, Long-duration:	20 surges of 75 A-2000 microsecond duration
Duty Cycle:	22 operations of 5 kA crest, 8/20 µs current wave

Insulation Withstand Voltages

Arrester Rating:	1.2/50 Impulse (kV Crest)	1 min Dry (kV rms)	10 Sec Wet (kV rms)
All ratings:	10	6	6

Protective Characteristics[2]

Arrester Rating (V rms)	Maximum Continuous Operating Voltage (v rms)	Maximum Energy Capability (Joules / Phase)	Front of Wave Protective Level (kV Crest)	8/20 µs Current Maximum Discharge Voltage (kV Crest)				
			5kA	1.5kA	5kA	10 kA	20 kA	40 kA
240	240	3405	1.8	1.5	1.7	1.9	2.2	2.6

[1] Tests were performed in accordance with applicable sections of IEEE Std C62.11™ - 1993 standard (Metal Oxide Surge Arresters for Alternating Current Power Circuits). [2] Based on a current impulse, which results in a discharge voltage cresting in 0.5 µs.

SurgeFuse

Insertion Resistance	<1 ohm
Maximum Current	100 mA
Open Transient Level:	>3kV

SurgeDetector

Trigger Current / Maximum Current	at least ± 20A / > ± 4kA	Negative Pulse Width	400-600mS
Current Waveform	8/20uS typical	Isolation	at least 8kV
Typical / Maximum Bias Voltage	3.0-3.3Vdc / 5.0V	Size	2 X 1.25 X 0.5 inches
Maximum Bias Current / Resistance	10uAdc / 33k ohms		
Output High / Low Voltage	2.6V minimum / .3V maximum		

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