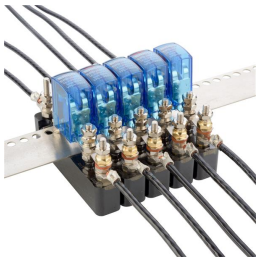
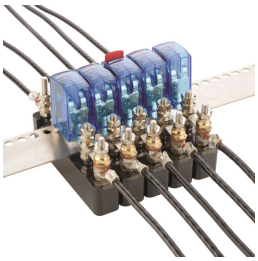
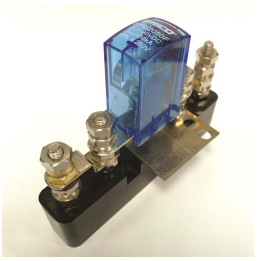
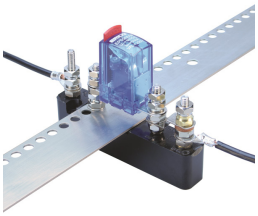
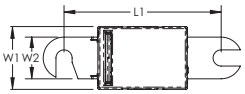
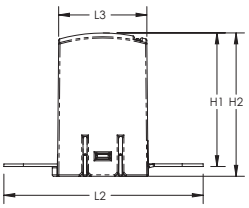
nVent ERICO Protection Device, F-Series

nVent ERICO is a world leader in grounding, bonding, surge and lightning protection in the railway industry, offering an extensive line of wayside surge protection. The EPD F-Series provides transient protection from surges induced or conducted onto low-voltage signal circuits for trackside signaling equipment. This series of surge-protection devices is ideal for microprocessor-based train-control and indication circuits, train inspection systems, communications systems, highway crossing controls and other operationally sensitive systems. Wayside rail-industry electronic-equipment environments are prone to dangerous and damaging voltage surges and transients. The EPD F-Series proven hybrid technology diverts surge currents to minimize the likelihood of system damage, reducing system down time and repair costs. nVent ERICO's design safeguards the devices against shorts, provides status indication at a glance and ensures uninterrupted signal operation when the device reaches end of life. Visual inspection is a key design feature. The device cover is color-coded and marked with the operating voltage and part number, which allows easy identification for proper application. nVent ERICO is committed to providing engineered high quality and technologically advanced solutions to the unique applications of the railway industry and has served the worldwide market for over 100 years. Railway systems around the world depend on nVent ERICO solutions to keep their systems running safely and efficiently.

- Protects sensitive electronic equipment
- Reduced operating and maintenance costs
- Visual indicator
- Open-circuit end-of-life mode
- Proven hybrid technology comprised of gap-type and varistor-type components
- Epoxy coating ensures stability under adverse environmental conditions
- Two operating voltages
- 50kA 8/20µs maximum surge rating
- AREMA® binding post terminals
- Exceeds AREMA® recommendations for arrestor applications
- 5-year limited warranty





Part Number	EPD2050F	EPD2170F
Nominal System Voltage (Un)	50 VDC 35 VAC	170 VDC 120 VAC
Max Continuous Operating Voltage (Uc)	90 VDC 65 VAC	220 VDC 150 VAC
Voltage Protection Level (Up)	250 V @ 3 kA	500 V @ 3 kA
Nominal Discharge Current (In)	30 kA 8/20 µs	20 kA 8/20 µs
Max Discharge Current (Imax)	50 kA 8/20 µs	
Leakage Current @ Un	1 nA Max	
Frequency	5 MHz Max	
Protection Modes	Single, L-L or L-PE	

Part Number	EPD2050F	EPD2170F
Technology	Metal Oxide Varistor (MOV) Gas Discharge Tube (GDT)	
Connection Type	AREMA® Stud-Type Terminals – 2 Post Terminal Block	
Status Indication	Mechanical flag	
Enclosure Material	UL® 94V-0 Thermoplastic	
Enclosure Rating	IP 20 NEMA®-1	
Humidity	0 – 95 % RH	
Temperature	-40 to 80 °C	
Length 1 (L1)	60 mm	
Length 2 (L2)	76 mm	
Length 3 (L3)	33 mm	
Width 1 (W1)	24 mm	
Width 2 (W2)	16 mm	
Height 1 (H1)	50 mm	
Height 2 (H2)	55 mm	
Unit Weight	0.068 kg	
Complies With	ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C AREMA® requirements	
Color	Transparent Blue	Transparent Yellow

Frequency @ 3 dB / 120 Ω.

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WARNING
nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at www.erico.com and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent 's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

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