

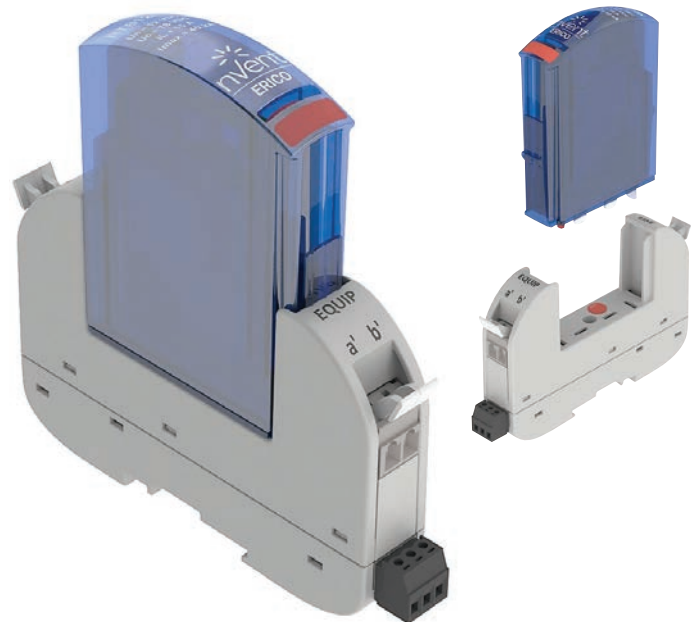
Rail Data and Signal Protection

RTBN - RAIL TRANSIENT BARRIER NEXT GENERATION

PROGRAM INFORMATION

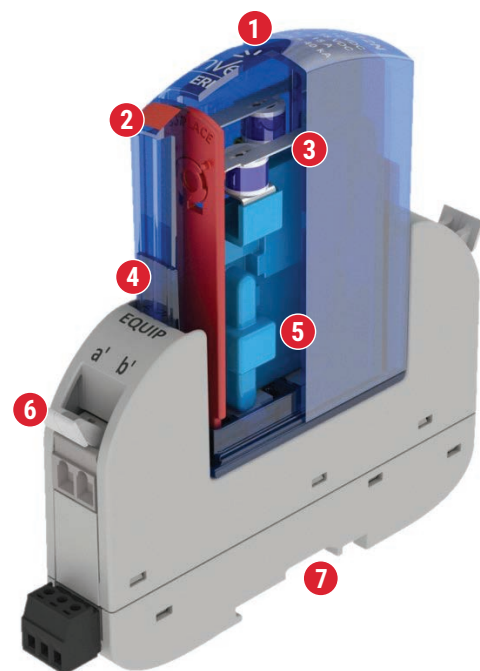
nVent ERICO is an industry leader in railway signaling surge protection. Momentary voltage surges can be induced onto track circuits, potentially costing millions in damage. For decades railroads have relied on nVent ERICO to protect railway data and signal equipment with our RTB (Rail Transient Barrier) products, an established line of surge protection devices recognized for performance and reliability.

Building on this legacy, we are pleased to introduce RTBN, the next generation in railway data and signal protection. With its high surge rating, RTBN delivers the same outstanding performance that industry has come to expect. RTBN also brings advanced new features to meet the needs of modern railways.



FEATURES AND BENEFITS

1. **Plug-in Surge Module** - Surge Module easily snaps into place.
2. **Visual Status Indicator** - When RTBN reaches its end-of-life, the visual indicator will protrude to indicate the module needs to be replaced.
3. **Thermal Disconnect** - The thermal disconnect releases the indicator when RTBN reaches its end-of-life condition, disconnecting itself from the circuit to prevent it from becoming a short/ shunt.
4. **Latching Mechanism** - The surge module attaches to the DIN rail base with a latching mechanism that makes it easy to lock into place and holds the device firmly in place, preventing the module from disconnecting during service.
5. **Hybrid Technology** - Integration of GDT (gas discharge tube) technology and MOV (metal oxide varistors), a combination that delivers consistency and the capability to protect against fast spikes.
6. **Cage Clamp Terminals** - Screw-less cage clamp terminal allows for easy connection, solid or stranded wires are simply pushed in to lock into place, reducing installation time by as much as 75%.
7. **DIN Rail Ground Clamp/ Grounding Connection** - Compact DIN rail design with DIN rail grounding connection that eliminates the need for extra grounding wires.





PERFORMANCE SPECIFICATIONS

	Part Number			
	RTB12N	RTB30N	RTB50N	RTB130N
Nominal System Voltage (U_n)	12 VDC 9 VAC	30 VDC 21 VAC	50 VDC 35 VAC	130 VDC 110 VAC
Max Continuous Operating Voltage (U_o)	18 VDC 12 VAC	33 VDC 23 VAC	65 VDC 50 VAC	170 VDC 130 VAC
Nominal Discharge Current (I_n)	20kA 8/20 μ s			
Max Discharge Current (I_{max})	40kA 8/20 μ s			
Rated Load Current (I_L)	15 A			
Voltage Protection Rating (VPR)	65V @ 3kA (L-L) 245V @ 3kA (L+L)-G	105V @ 3kA (L-L) 245V @ 3kA (L+L)-G	230V @ 3kA (L-L) 245V @ 3kA (L+L)-G	530V @ 3kA (L-L) 495V @ 3kA (L+L)-G
Loop Resistance	900 $\mu\Omega$			
Mounting	35mm top hat DIN rail G style rail			
Status Indication	Mechanical Flag Remote Contacts			
Protection Modes	(L-L) ; (L+L)-G			
Connection, Solid	18 - 12 AWG (0.75 – 2.5 mm ²)			
Connection, Stranded	18 - 12 AWG (0.75 – 2.5 mm ²)			
Enclosure Material	UL 94 [®] V-0 Thermoplastic			
Enclosure Rating	IP 20			
Temperature	-40° to 185°F (-40° to 85°C)			
Depth (D)	4.22" (107 mm)			
Height (H)	4.33" (109 mm)			
Width (W)	0.71" (18 mm)			
Unit Weight	0.22 lbs (0.1 kg)			
Complies With	AREMA [®] C&S Manual Parts 11.5.1 & 14.1.2			
Designed to Meet	ANSI [®] /IEEE [®] C62.41-2002 Cat A, Cat B, Cat C			
Replacement Module	RTBN12M	RTBN30M	RTBN50M	RTBN130M
Color	Red	Black	Purple	Yellow

ORDERING INFORMATION

For additional information and complimentary options contact your nVent rail representative, call +1.800.447.RAIL, or e-mail us at rail@nVent.com



Our powerful portfolio of brands:

CADDY ERICO HOFFMAN RAYCHEM SCHROFF TRACER

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 nVent.com/ERICO 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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