

5-Pin Protector Modules

Key Features

- The 5-pin protector modules protect personnel and equipment from excessive voltages and currents
- Modules feature industry standard 5-pin bases for use in central office, remote terminal, building entrance, and customer premises applications
- All modules are available with or without a heat coil to protect against sneak currents
- Carbon Protector Modules feature a carbon air gap and fail-safe mechanism that shorts to ground when a voltage exceeds its rating
- Gas-Tube Protector Modules contain two-electrode high amperage ceramic nonradioactive gas-tube surge arresters and a fail-safe mechanism
- Solid-state Modules contain state-of-the-art diodes intended for use with sensitive equipment

Description

The 5-pin protector modules protect personnel and equipment from excessive voltages and currents induced on telephone lines or local ground by lightning and AC power system faults. All modules feature industry standard 5-pin bases for use in central office, remote terminal, building entrance, and customer premises applications. All modules are available with or without a heat coil to protect against sneak currents. When a sneak current is induced on the line, the heat coil responds by permanently grounding the line to prevent damage to line cards and sensitive equipment.

Carbon Protector Modules feature a carbon air gap and fail-safe mechanism that shorts to ground when a voltage exceeds its rating. A detent position disconnects the equipment side while protecting the line side (OSP cable). These modules are used where transients are not frequent or cost is a major factor.

Gas-Tube Protector Modules contain two-electrode high amperage ceramic nonradioactive gas-tube surge arresters and a fail-safe mechanism. These are used in areas where frequent transient overvoltages are a problem or where tightly controlled breakdown values are required. The gas-tube will recover repeatedly from the overvoltage, providing 30 to 40 times longer life than carbon. The detent position disconnects the equipment side while protecting the line side (OSP cables). Modules are available with a secondary vent-safe backup gap. Modules equipped with patented vent-safe gap are UL Listed (VS in catalog). If a module is specified as a JZ-type, it is a next generation new gas-type version that provides extended life and environmentally robust protection.

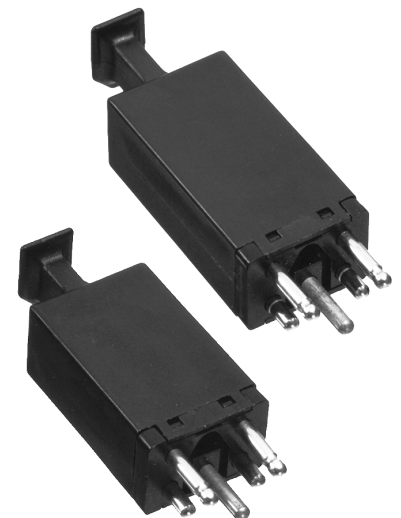
Solid-state Modules contain state-of-the-art diodes intended for use with sensitive equipment. They are available with 4 ohm (350mA) or 20 ohm (150 mA) heat coils. The diode is a fast semiconductor switch with operating voltage nearly independent of transient rise time.

“RXXXX” **Protector Modules** have either a “B” or “C” as the third character in the catalog number to denote special characteristics. Those with a B as the third character, i.e., R3B1E, have a triangular-shaped recess molded into the base to accommodate the raised structure molded into the panel of AT&T building entrance protectors.

Those modules with a C as the third character, i.e., R3C1E, have a circular-shaped hole in the shoulder of the housing to provide access for test points.

Application

These protector modules provide overvoltage and overcurrent protection for central office, remote terminal, and building entrance/customer premises applications. All protector modules provide a vent-safe gap, are fail-safe, and meet UL requirements. Specific models are designed to meet RUS and Bellcore specifications.



5-Pin Protector Modules

Ordering Information

Modules for Bell Operating Companies, No Heat Coil, Gold Plated Pins

Housing Color & Size	JZ	Gas-Tube	Carbon	Low Voltage Solid-State (240V)	Standard Solid-State (300V)	Service
Black, S	R3B1EJZ	R3B1E	R3B1A	R3B1FS	R3B1S	Standard
Black w/test point, L	R3C1EJZ	R3C1E		R3C1FS	R3C1S	Standard
Green, S		R3B2E	R3B2A	R3B2FS	R3B2S	Service denial
Green w/test point, L				R3C2FS	R3C2S	Service denial
Red, S	R3B3EJZ	R3B3E	R3B3A	R3B3FS	R3B3S	Special
Red w/test point, L	R3C3EJZ	R3C3E		R3C3FS	R3C3S	Special
Yellow, S		R3B4E	R3B4A	R3B4FS	R3B4S	PBX battery
Yellow w/test point, L				R3C4FS	R3C4S	PBX battery
Gray, S			R3B12A			Continuity only

NOTE: Size: S = short & L = long

Modules for Bell Operating Companies, Long Housing, with 4 or 20 Ohm Heat Coil, Gold Plated Pins

Housing Color	JZ	Gas-Tube	Carbon	Low Voltage Solid-State (240V)		Standard Solid-State (300V)		Service
				4 Ohm	20 Ohm	4 Ohm	20 Ohm	
Black	R4B1EJZ	R4B1E	R4B1C	R4B1FS	RT4B1FS	R4B1S	RT4B1S	Standard
Black w/test point	R4C1EJZ	R4C1E	R4C1C	R4C1FS	RT4C1FS	R4C1S	RT4C1S	Standard
Green		R4B2E	R4B2C	R4B2FS	RT4B2FS	R4B2S	RT4B2S	Service denial
Green w/test point	R4B3EJZ		R4C2C	R4C2FS	RT4C2FS	R4C2S	RT4C2S	Service denial
Red	R4C3EJZ	R4B3E	R4B3C	R4B3FS	RT4B3FS	R4B3S	RT4B3S	Special
Red w/test point	R4B4EJZ	R4C3E	R4C3C	R4C3FS	RT4C3FS	R4C3S	RT4C3S	Special
Yellow		R4B4E	R4B4C	R4B4FS	RT4B4FS	R4B4S	RT4B4S	PBX battery
Yellow with test point			R4C4C	R4C4FS	RT4C4FS	R4C4S	RT4C4S	PBX battery
White		R4B9E	R4B9C	R4B9FS	RT4B9FS	R4B9S	RT4B9S	Reverse tip & ring
White with test point			R4C9C	R4C9FS	RT4C9FS	R4C9S	RT4C9S	Reverse tip & ring
Gray			R4B12C					Continuity
Gray w/test point			R4C12C					Continuity only

5-Pin Protector Modules

Ordering Information

Other Modules—Short Housing, No Heat Coil, Tin Plated Pins

Housing Color	Carbon	Gas	Three Element	Low Voltage Solid-State (240V)	Standard Solid-State (300V)	Specification
Black	3AB					UL, RUS, GTE
Red			3GURVS			UL
Orange		6A20				RUS, GTE
Black		6A20B				RUS, GTE
Red		6A20R				RUS, GTE
Black			3GB			RUS
Red			3GR			RUS
Orange			3G			RUS
Orange		6U2VS				UL, RUS, GTE
Black		6U2BVS				UL, GTE
Red		6U2RVS				UL, GTE
Orange			3GUVS			UL, RUS
Black			3GUBVS			UL
Black				S3ABF	S3AB*	UL, RUS
Red				S3ARF	S3AR	UL

* S3AB is RUS accepted in our R399 connector and available for use in connector equivalents.

Other Modules—Long Housing, with Heat Coil, Tin Plated Pins

Housing Color	Carbon	Gas	Three Element	Low Voltage Solid-State (240V)	Standard Solid-State (300V)	Specification
Black	4AB					UL, GTE
Red				S4ARF	S4AR	UL
Orange		G4AVS				UL, GTE
Black		G4ABVS				UL, GTE
Red		G4ARVS				UL, GTE
Black				S4ABF	S4AB	UL

NOTE 1: See the Reference Standards Chart at the end of this section.

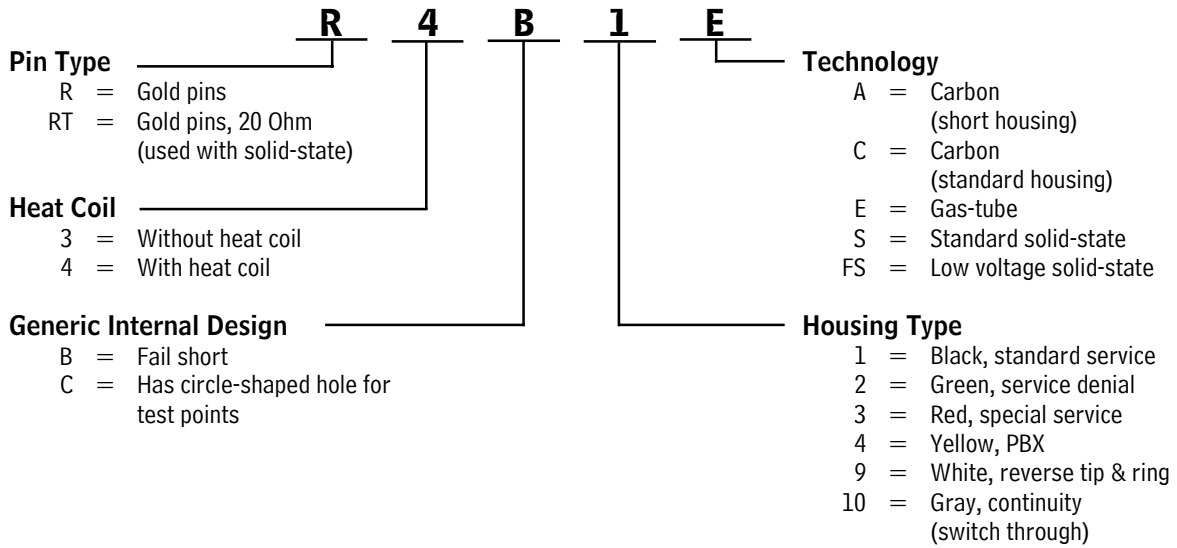
NOTE 2: Designed to meet Bellcore TR-TSY-000070, GR-1361-CORE, GR-974-CORE, and RUS PE-80, PEG-1, PEG-3, PEG-7.

NOTE 3: All RUS modules meet the criteria in Government Publication RUS TE&CM 823.

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Configuration Guide

RBOC Catalog Numbers



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