

**175-3B1EW,
173-3B3EW,
175-3C1EW,
173-3C3EW,
175-3B1EWS**

*Three-Electrode Gas
Tube Modules*

Protection for POTS, ISDN,
ADSL2/2+, SDSL, HDSL, RADSL,
VDSL and VDSL2

Equipped with Test Point Contacts

Resettable Overcurrent Protection
(PTC) Available

Tin or Gold-Plated Contact Pins

UL 497 Listed for Primary
Protection

Telcordia Approved GR-974-CORE

Telcordia Approved GR-1361-
CORE



tii network technologies

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175-3C1EW

Tii's Gas Tube Protectors provide dependable protection for a variety of communications networks where the protectors need to be in moderate to high humidity environments. Ultralow capacitance circuitry minimizes noise and signal loss in high frequency networks.

These modules protect sensitive circuitry by responding to surges and overvoltage conditions. Overvoltage protection is provided by shorting surges to ground dependably even after long repeated surge events. An integral fail-safe mechanism permanently shorts the protector to ground in the presence of a sustained over-voltage condition.

Tii's Gas Tube Protectors introduce very low insertion loss to the transmission of high speed broadband networks including "triple play".

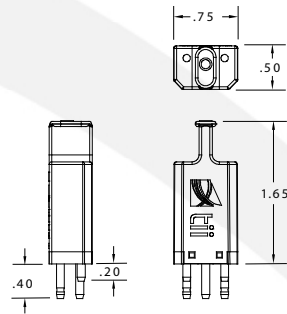
KEY PRODUCT BENEFITS

- ▶ Allows transmission of full motion video including modern "triple play" applications.
- ▶ Protects personnel, and prevents costly damage to circuitry from most surges.
- ▶ Three-electrode, environmentally robust "Bug Less" gas tube, as per Seal Integrity Test in UL497.
- ▶ Tin or gold plating on contact pins maximize connectivity between the modules and the blocks that contain them.
- ▶ Fail-safe mechanism permanently shorts to ground in the event of sustained overvoltages.

INDUSTRY STANDARDS

- ▶ UL 497 Listed for primary protection.
- ▶ Telcordia Approved GR-974-CORE.
- ▶ Telcordia Approved GR-1361-CORE.

175-3C1EW



Dimensions are in Inches

SPECIFICATIONS

DC Breakdown	280-420 V
Impulse Breakdown	
100 V/ μ s	< 650V
Insulation Resistance @ 100 Vdc	>1G Ω
Insertion Loss @ 100 MHz	Exceeds Category 5
Return Loss @ 100 MHz	Exceeds Category 5
Capacitance Tip to Ring @ 1MHz	<1.25 pF typical
Capacitance Tip or Ring to Ground @ 1MHz	< 2.50 pF typical
Impulse Reset	
52V, 260 mA	<10 ms
135V, 200 mA	<10 ms
Service Life Characteristics (Tip and Ring to Ground Simultaneously)	
10A, 10/1000 μ s	> 1,500 Operations
100A, 10/1000 μ s	> 100 Operations
300A, 10/1000 μ s	> 50 Operations
10A rms, 1 second	> 5 operations
High Current Capability and Thermal Operation	> 30 A rms, 15 min.
Storage and Operating Temperature	-55 to +85° C

ORDERING INFORMATION

Model No.	Description
175-3B1EW	Three-Electrode Gas Tube, 350V, Black Body with Gold Pins
175-3B1EW-N	Three-Electrode Gas Tube, 350V, Black Body with Tin Pins
173-3B3EW	Three-Electrode Gas Tube, 350V, Red Body with Gold Pins
173-3B3EW-N	Three-Electrode Gas Tube, 350V, Red Body with Tin Pins
175-3C1EW	Three-Electrode Gas Tube, 350V, Black Body with Gold Pins and Test Points
175-3C1EW-N	Three-Electrode Gas Tube, 350V, Black Body with Tin Pins and Test Points
173-3C3EW	Three-Electrode Gas Tube, 350V, Red Body with Gold Pins and Test Points
173-3C3EW-N	Three-Electrode Gas Tube, 350V, Red Body with Tin Pins and Test Points
175-3B1EWS	Three-Electrode Gas Tube, 350V, Short Black Body with Gold Pins
175-3B1EWS-N	Three-Electrode Gas Tube, 350V, Short Black Body with Tin Pins

Standard Package: 100 pieces

Weight: 0.4 oz. each