



Features

- Multi-Stage Protection (MSP®)
- Balanced TRIGARD® GDT
- Self-resetting sneak current protection with Bourns® TBU® devices
- Overcurrent and overvoltage protection
- Quick response to surges
- High energy handling
- Switch-Grade Fail-Short
- Insulation Displacement Connectors (IDCs)
- High-speed network compatible such as ADSL2+ and VDSL2
- UL Pending

2377 MSP®/TBU® Series Digi-Guard™ Station Protector

Bourns® 2377 MSP®/TBU® series is a new generation telecommunications station protector designed to be the best choice for protection of high-speed network data circuits. Bourns® 2377 MSP®/TBU® series protectors integrate four advanced technologies: our proprietary advanced TRIGARD® GDT, precision matched metal oxide varistors (MOVs), a switch-grade fail-short mechanism, and our TBU® (Transient Blocking Unit) technology which protects the circuit by rapidly switching to a blocking state. These technologies are combined to provide robust overvoltage and fast, resettable sneak current protection with extremely low energy let-through. Additionally, the MSP®/TBU® series has very low loss characteristics, making it the ultimate choice for protection of sensitive, high speed communication lines.

A continuous DC bias such as sealing current or remote powering (span powering) can hold the TBU® device in a high resistance blocking state after the fault has passed. The TBU® device can be reset by momentarily disrupting the loop current or providing a low voltage (V_{reset}) condition on the line.

Characteristics

Test Methods per IEEE C62.31, UL 497, CSA C22.2, Telcordia GR 1361 and applicable sections of Telcordia GR 974.

DC Breakdown	300-400 V
AC Breakdown	60 Hz 300-400 V
Impulse Breakdown.....	100 V/ μ s 600 V
	1000 V/ μ s 650 V
Insulation Resistance	100 Vdc > 1 G Ω
Insertion Loss	100 MHz < 0.4 dB (Category 5)
Return Loss	100 MHz > 14 dB (Category 5)
Capacitance Line to Line.....	1 MHz 14 pF typical
Capacitance Line to Ground	1 MHz 28 pF typical
Line Resistance	12 ohms typical
Impulse Reset ¹	52 V, 260 mA < 10 ms ³
	135 V, 200 mA < 10 ms ³
	150 V, 200 mA < 150 ms
Impulse Life Characteristics	100 A, 10/1000 μ s 3000 operations ²
(Per Side, Simultaneously)	300 A, 10/1000 μ s 1000 operations ²
	500 A, 10/1000 μ s 1000 operations ⁴
	2,000 A, 10/250 μ s 100 operations ²
	5,000 A, 20/100 μ s 10 operations ²
	20,000 A, 8/20 μ s 1 operations
AC Life Characteristics.....	0.5 A rms continuous 30 seconds
	1 A rms, 1 second, 600 ft. cable 60 operations
	1 A rms, 1 second, 1 mile cable..... 60 operations
	10 A rms, 1 second 20 operations
	200 A rms, 11 cycles..... 1 operation ⁵
	120 A rms, 0.1 second 1 operation
Life Test Criteria	
Insulation Resistance Throughout the Life Test	100 megohms
Life Test Failures	0.0 %
Failures During Environmental Cycling w/surges.....	0.0 %
Fail-Short (Vented or Non-vented Gas Tube)	30 Arms, simultaneously
Operating Temperature.....	-55 to +85 °C
Moisture Sensitivity Level.....	1
ESD Classification (HBM)	N/A

Notes:

¹ Network applied.

² Exceeds Telcordia (Bellcore) GR 1361.

³ Surpasses Telcordia GR 974.

⁴ RUS (REA) PE-80.

⁵ Protector may short to ground.

Line to Line voltage is approximately 1.8 to 2 times the stated Line to Ground breakdown voltage.



WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Specifications are subject to change without notice.

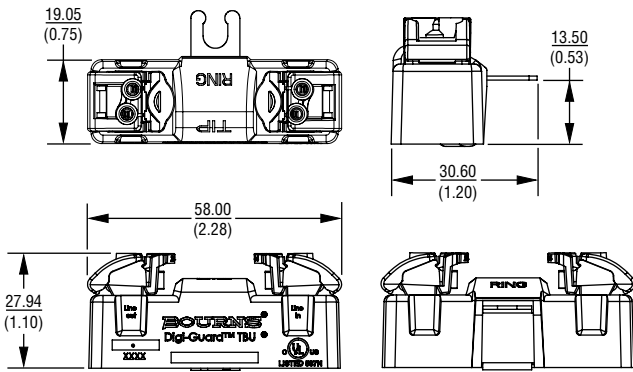
Users should verify actual device performance in their specific applications.

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2377 MSP®/TBU® Series Digi-Guard™ Station Protector



Product Dimensions



DIMENSIONS: $\frac{\text{MILLIMETERS}}{\text{(INCHES)}}$

How To Order

2377-45-HS-TBU Standard Model
 2377-45-BC-TBU* Balanced Capacitance

*BC versions are for xDSL systems that require Tip-to-Ground and Ring-to-Ground capacitive balance of ≤ 1 pF.

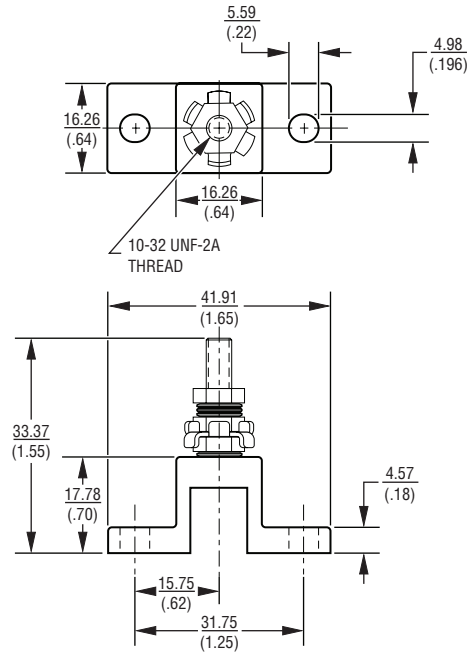
Related Products



80052 Test Clip for IDC

80053 Insulation Tool for IDC

2372-02 Ground Mounting Stud (Order Separately)



DIMENSIONS: $\frac{\text{MILLIMETERS}}{\text{(INCHES)}}$



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