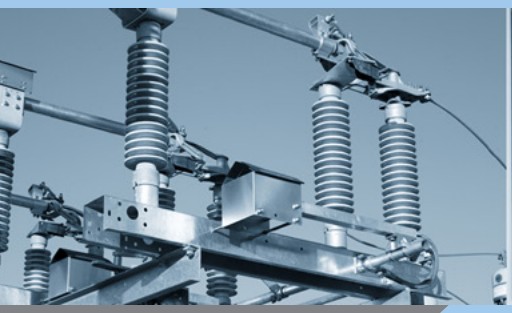
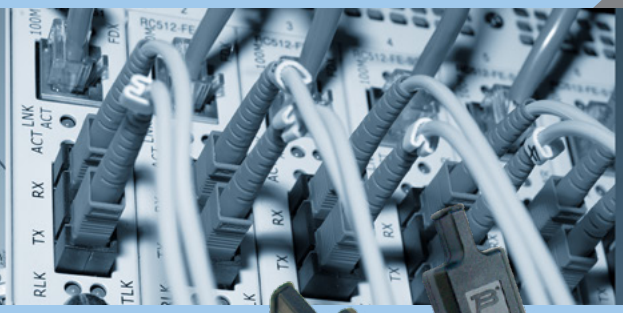
Bourns®
Outside Plant Products
Product Overview Brochure





BOURNS®

Product Overview

The Bourns® MSP® Protector Advantage

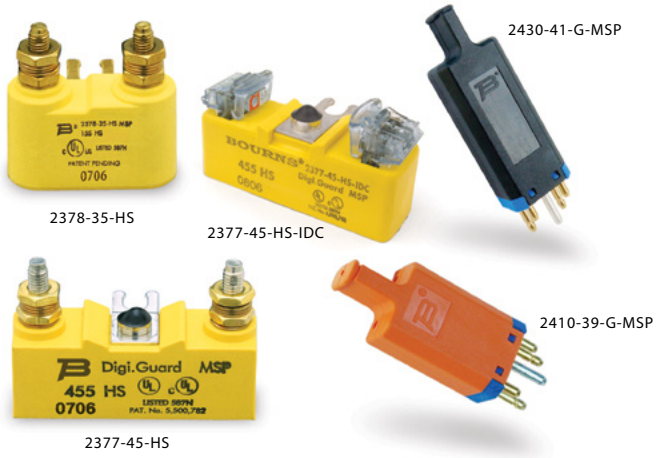
Multi-Stage Protection

The Best of Two Technologies - Bourns® MSP® 5-pins and station protectors provide superior protection by combining the high energy handling of a three-electrode Gas Discharge Tube with the quick response of solid-state Metal Oxide Varistors (MOVs).

Solid-state devices react quickly to electrical surges but generally cannot handle high energy surges. Multi-Stage Protectors limit the incoming surge with the MOVs as the GDT activates to handle the bulk of the energy by directing it safely to ground, away from personnel and equipment.

Low Capacitance - The low capacitance of Bourns® MSP® products makes them ideal for broadband applications such as ADSL2+ and VDSL2. Our new PPTCR-based 5-pins with overcurrent protection offer industry-leading performance with low resistance and capacitance.

No Air Back Up Gap - Bourns® MSP® devices do not have an air Back Up Gap (BUG), thereby eliminating BUG-related contamination within the protector as a potential cause of faults on the line.



Switch-Grade Fail-Short - Unlike technologies that require a solder pellet to melt or an insulating material to burn away, Bourns® MSP® units feature a Switch-Grade Fail-Short, which activates in response to an extended overvoltage to provide exceptional fire protection.

Proprietary Low Work Function GDT Coating - This feature ensures low heating and high efficiency in handling surges.

Long Life, Proven Reliability - Bourns® MSP® products have a proven record of reliability with millions of protectors deployed worldwide.

5-Pin and Station Protectors with Transient Blocking Unit (TBU®) Technology

Bourns® 2377 and 2470 MSP®/TBU® series are a new generation of surge protector designed to be the best choice for protection of high-speed network data circuits. MSP®/TBU® series protectors integrate four advanced technologies: Our proprietary advanced balanced TRIGARD® GDT, precision matched metal oxide varistors (MOVs), a patented Switch-Grade Fail-Short mechanism, and our patented TBU® device that 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 surge let-through and very low loss characteristics, making it the ultimate choice for protection of sensitive, high speed communication lines.

Station and Central Office Protectors

UL Listed per 497

Bourns® station and central office protectors are designed to provide primary surge protection of copper-twisted pair POTS and broadband circuits. They utilize industry standard footprints and meet or exceed industry performance requirements.

All station protectors feature sealed bodies of UL approved material. The broad product offering ranges from the economical units to the maximum duty DigiGuard® protectors.

5-pin surge protectors are used in Telco central offices and remote terminals. Bourns produces a full range of GDT, solid-state and hybrid technologies, with models for both overvoltage and overvoltage / overcurrent (sneak-current) protection. Bourns® MSP® 5-pin surge protectors combine solid-state MOVs and gas discharge tubes to provide Multi-Stage Protection. Special balanced capacitance versions are available for VDSL2 and other balance-sensitive high-speed systems. Bourns® 2410 and 2420 series are analyzed to the latest requirements of GR-974-CORE and SBC SR-5165, "Generic Requirements for Broadband Surge Protectors" (Telcordia Test Report DA-1547). The new 2440 and 2430 series 5-pin protectors offer this same superior protection with sneak-current protection utilizing PPTCR technology for greater reliability than the heat coil type of protection.

The two recent acquistions of plug-protectors expands our offering to include a complete line of solid-state (SS) 5-pin, 4-pin and 1-pin plug-in protectors. Versions for overvoltage (3-type) and overvoltage/overcurrent (4-type) protector units are available. These units provide a rapid response to surge events and limit voltage overshoot. 4-type models are available with heat-coil and PTC elements for sneak-current protection.

Product Overview

Special Application Modules

UL Listed per 1893

Bourns offers a variety of special purpose plug-in modules for continuity, grounding and dummy plugs. We also offer S-50, 300, and 6-pin type overvoltage protectors as well as S-76A heat coils to provide sneak-current protection for C-50 and C-52 mainframe connectors.

A0338073

POTS Splitters

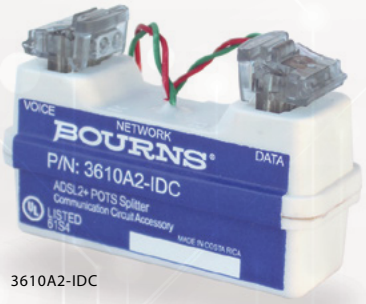
UL Listed per 1893

Bourns® POTS splitters/filters simplify the deployment of DSL service at the subscriber premises. Compliant to applicable ANSI and ITU-T standards, the units accept the incoming DSL service, filter off the voice (POTS) channel and provide a connection for the data service (modem). Our **new ADSL2+ / VDSL2 models** are optimized for **video over ADSL2+ and VDSL2** applications and tolerate high ring trip currents. The Model 361xA2 series POTS splitters meet requirements for ADSL, ADSL2+, VDSL and VDSL2 services.

Models are available for ADSL, ADSL2+ and VDSL/VDSL2 systems, which fit Bourns' and other manufacturers' NIDs. The Bourns® Model 3610A2, and 3610A2-IDC POTS splitters are manufactured in the traditional binding post mounting style. Also available in a convenient snap-in footprint is the Model 3611A2. It is compatible with the Bourns® Model 7043 series and other manufacturers' 7600 style enclosures.

In addition, the Model 3612A2 IPA mounting style splitter is available for mounting in other manufacturers' 2003/2006 style NIDs. The Bourns® Model 366x binder equalization module series also available in all three industry-standard footprints. The modules, also called attenuators, reduce crosstalk issues on lines where the customer is located in close proximity to the central office.

The Model 3670-01 BalUn (Balanced-Unbalanced) impedance matching module is optimized to extend the reach of high speed services with high efficiency conversion of twisted pair to coaxial transmission for HPNA and Triple Play applications. Our new Model 3670-01 BalUn is designed to adapt twisted pair to coax for xDSL systems. The Model 3617-01 and 3617-02 combine the circuitry of the Model 3610A2 and the 3670-01.



3610A2-IDC

3610A2

4-Pin Surge Protectors

UL Listed per 1893

The compact Model QMP 4-pin modules are available in overvoltage and overvoltage with overcurrent (sneak-current) protection for the MPC connectors. Gas Discharge Tube (GDT) 4-pins are offered with and without heat coil. Solid-state (SS) versions are available with and without PTTC.

4-Pin

(QMP11A5)

4-Pin

(QMP6A5)

Surge Protector Test Sets

The Model 4010 general and 4020 station and 5-pin protector test sets are convenient handheld units for testing the clamping and DC breakdown voltage of surge protectors. They feature true slow-rise circuitry for precise voltage measurements.

4020-01

4010-01-B

Product Overview

Telecom Protection Application Guide								
Name	**Part Number**	**Technology**	**UL Listed per 497**	**Meets Telcordia 974**	**Meets Telcordia 1361**	**Meets RUS PE-80**	**Application Notes**	**Last Time Buy Date**
DigiGuard®	2377-45-HS-IDC	3 Element GDT/SS Multi-Stage	Yes	Yes	Yes	Yes	Maximum Performance, Broadband	12/31/24
155HS	2378-35-HS	3 Element GDT/SS Multi-Stage	Yes	Yes	Yes	Yes	Heavy-Duty, Broadband	12/31/24
356M	2377-01	3 Element Gas Discharge Tube	Yes	N/A	N/A	Yes	Heavy-Duty	12/31/24
356G	2377-35-G	3 Element Gas Discharge Tube	Yes	Yes	Yes	Yes	Heavy-Duty, Broadband	12/31/24
356G	2377-35-G-IDC	3 Element Gas Discharge Tube	Yes	Yes	Yes	Yes	Heavy-Duty, Broadband	12/31/24
Well Type	2022-60-A / 2022-84-A	2 Element Gas Discharge Tube	Yes	N/A	Yes	Yes	Heavy-Duty	12/31/24

2377-45-HS

2375-01 (125EW-R)

2378-35-HS

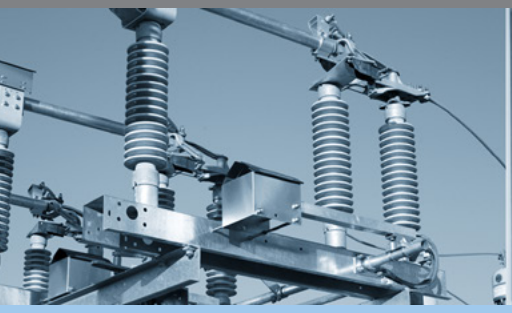
2377-45-HS-IDC

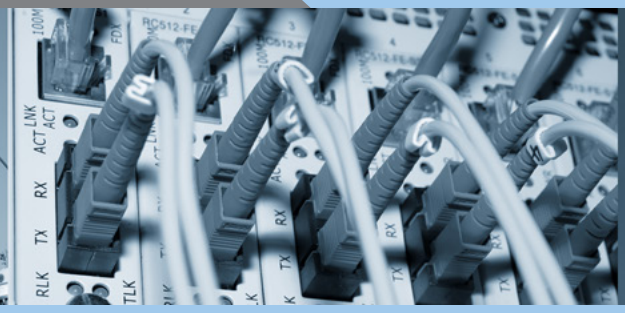
2377-35-G-IDC

2022-60-A / 2022-84-A


2410-76-G-BC
303M-11A1G0
2420-31-G
2378-35-HS
2377-45-HS
2377-35-G-IDC
2377-45-HS-IDC

Worldwide Sales Offices





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Specifications subject to change without notice. Actual performance in specific customer applications may differ due to the influence of other variables. Customers should verify actual device performance in their specific applications.