

Wieland Electric Inc. proudly represents the world leader in surge protection...



DEHN + SÖHNE

# Surge Protection

*Canadian Product Introduction Brochure*



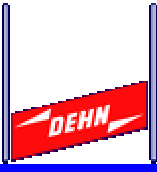
Lightning Protection



Surge Protection



Safety Equipment



## **DEHN and WIELAND: your “Best Connections” when safety comes first...**

**DEHN** has led the way in surge protection concepts and products for over 90 years. A global company with representation worldwide, *Wieland Electric Inc.* is proud to be **DEHN's** Canadian representatives.

### **General Product Information**

#### **DEHN Red Line: AC Systems Protection**

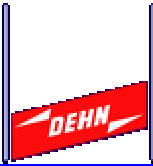
The **DEHNbloc Red Line** product group are Class I lightning arrestors, designed to protect AC mains against voltage surges due to direct lightning strikes. This product group employs non-exhausting spark gap technology, with a maximum let through voltage of 4kV. The modules should be wired in parallel to the main/branch supply. Additional upstream current protection (fuse or circuit breaker) may be required to protect the wiring. (See attached installation sheet No. 1205 & 1226)

The **DEHNguard Red Line** product group are Class II surge protectors, designed to protect against general voltage surges up to 600V. The module is wired in parallel to the main/branch supply. (Please consult with your Wieland rep for the appropriate mix of DG products based on your wiring configuration, ex: 3-wire + Ground @ 480V.) Also, please check the let through voltage of the **DEHNguard** unit against the kV rating of the device being protected when selecting the module. Additional upstream current protection (fuse or circuit breaker) may be required to protect the wiring. The module will create an open circuit when replacement is required – remote indication is available. (See attached installation sheet No. 1344 & 1345)

The **DEHNrail Red Line** product group are Class III surge protectors, designed to protect “downstream” industrial electronic equipment, up to 230V. **DEHNrail** modules can be wired in series or parallel when protecting “downstream” devices. In series connection, the module provides protection up to 16A at the specific voltage. LED indication of module status is standard for series installation. Additional upstream current protection (fuse or circuit breaker) may be required to protect the wiring. (See attached installation sheet No. 1267)

#### **DEHN Yellow Line Signal / Instrumentation Systems Protection**

The **DEHN Blitzductor Yellow Line** product group offers a complete range of devices for medium/fine protection at medium energy levels for instrumentation loads. (See catalog pages 82 to 90 for a handy quick selection guide.) Additional upstream current protection (fuse or circuit breaker) may be required to protect the wiring. Note: The modules create an open circuit when replacement is required. When the module is removed from the base a closed circuit will automatically result. To prevent a floating ground in series circuits where two modules are used, please install the optional gas discharge tube # 919 502 on one module. (See attached installation sheet No. 1216)



## **DEHN Protection Modules General Application Guide**



### **AC Power Mains Protection**

***DEHNBloc*** product group, details on page 37 of main catalog, see attached installation instructions No.'s 1205 & 1226.



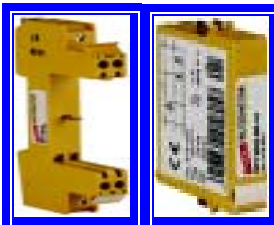
### **AC Power Distribution Panels/Branch Protection**

***DEHNGuard*** product group, details on page 52 & 53 of main catalog, non-plug and plug versions available see attached installation instructions No.'s 1344 & 1345.



### **AC Power Electronic Equipment (Power Supplies, VSD's)**

***DEHNrail*** product group, details on page 64 of main catalog, see attached installation instructions No. 1267



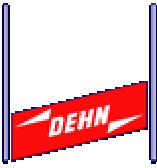
### **AC/DC Instrumentation/Signals Protection**

***Blitzductor CT*** product group on pages 92 & 93 of main catalog, see attached installation instructions No. 1216.



### **PLC's and Logic Controls Protection**

***Blitzductor VT*** product group on page 103 of main catalog, see attached installation instructions No. 1313.



### **DEHN General Protection Philosophy & Coordination**

Voltage Protection Level	Type of Equipment to Protect	* Equipment Examples
1.8 to 2.5 kV	Electromechanical equipment and components	Electric Motors, Variable Speed Drives
1.5 to 1.8 kV	Electronic equipment containing limited non-sensitive components.	Home appliances, office equipment
1 to 1.5 kV	Sensitive electronic equipment	Computer rooms, networks, modems
0.5 to 1 kV	Highly sensitive equipment	Alarm systems, medical apparatus

\* For general information only. Check kV rating of equipment when selecting surge protection. Please see pages 11 to 13 of the **DEHN Surge Protection Main Catalog.**

### **DEHN Wire Gauge Guideline: “mm<sup>2</sup>” vs. “AWG”**

**>2.5 mm<sup>2</sup> = 14 AWG**

**>4 mm<sup>2</sup> = 12 AWG**

**>6 mm<sup>2</sup> = 10 AWG**

**>10 mm<sup>2</sup> = 8 AWG**

**>16 mm<sup>2</sup> = 6 AWG**

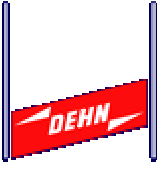
**>25 mm<sup>2</sup> = 4 AWG**

**>35 mm<sup>2</sup> = 2 AWG**

**>50 mm<sup>2</sup> = 1/0 AWG**

### **DEHN Additional Information**

- All product installation sheets can be downloaded off the **DEHN** website at [www.dehn.de](http://www.dehn.de).
- ***Wieland Electric Inc.*** (Canadian representatives for **DEHN**) part numbers for various **DEHN** modules are attached. Please use these numbers when checking price and availability through any ***Wieland*** distributor. Please note these are just the current local stock items and all other modules / items are readily available. For modules not listed here, please contact ***Wieland Electric Inc.*** for assistance.



### **DEHN Technical Approvals:**

- For CSA approvals on the **DEHN** products see CSA file #215727-0-000.  
The certification record can be found on the CSA website at: [www.csa-international.org](http://www.csa-international.org).
- For UL approvals on the **DEHN** products see UL website at [www.ul.com](http://www.ul.com).
- For any other approvals contact Wieland Electric Inc. for assistance.

### **Let Wieland bring DEHN solutions to you!**

Wieland Electric Inc. looks forward to meeting with you to review the customized surge protection requirements for your company's systems and/or equipment. Don't let your precision-engineered designs experience premature failure from the effects of lightning or induced surges. Give your designs and systems the best protection...get **DEHN** protection from *Wieland Electric Inc.!*

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Lightning Protection  
Surge Protection  
Safety Equipment

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