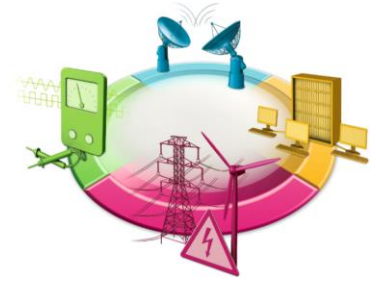


# Limited Lifetime Warranty

## Guidelines for determining the need for surge protection

In general, the idea is not to sell surge protection on every conductor pair; rather it is to help the customer achieve an appropriate level of protection for their application. These guidelines will help you toward achieving this goal.



This process begins by evoking the Circle of Protection (CoP). The CoP is defined as follows:

- A. Identify what is to be protected, and draw a circle around it. For LLW, this will be the entire control panel.
- B. Identify the electrical conductors intersecting the circle to enter the panel and then identify which of those conductors are susceptible to transients. This can be accomplished by using the following steps. If the answer to a particular STEP is “No”, then proceed to the next STEP.

### **STEP 1. Power protection is a must.**

Select the appropriate power SPD to protect the Phoenix Contact power supply utilized in the panel. Keep in mind that multiple power supplies can be protected using a single power SPD. Use the tools in C. to select the proper SPD.

### **STEP 2. Inventory all measurement and control signals (4-20mA, 0-10V, RS422, PROFIBUS, RTD, etc.) penetrating the CoP to terminate on Phoenix Contact products.**

Do any of these conductors run in parallel with other conductors (i.e. power conductors in a cable tray) or originate from devices located in outdoor environments?

If “Yes”, select the appropriate measurement and control SPD(s) to protect the Phoenix Contact product inside the panel.

### **STEP 3. Inventory all communication lines (Ethernet, PoE, PROFIBUS, HART, etc.) penetrating the CoP to terminate on Phoenix Contact products.**

Do any of these conductors run in parallel with other conductors (i.e. power conductors in a cable tray) or originate from devices located in outdoor environments?

If “Yes”, select the appropriate communications SPD(s) to protect the Phoenix Contact product inside the panel.

### **STEP 4. Are there any wireless equipment antennas penetrating the CoP (at the bulk head) to terminate on Phoenix Contact products? Is the panel located in outdoor environment?**

If “Yes”, select the appropriate coaxial SPD(s) to protect the Phoenix Contact product inside the panel.

- C. Use the following tools to aid in the selection of the appropriate surge protective devices:

[https://extranet.phoenixcon.com/marketing/trabtech\\_matching\\_guide/default.asp](https://extranet.phoenixcon.com/marketing/trabtech_matching_guide/default.asp)

[https://www.phoenixcontact.com/online/portal/us?1dmy&urile=wcm%3apath%3a/usen/web/main/products/product\\_configurator/application\\_pages/surge\\_protection\\_for\\_measuring\\_and\\_control\\_technology\\_p-24-03/trabtech-msr](https://www.phoenixcontact.com/online/portal/us?1dmy&urile=wcm%3apath%3a/usen/web/main/products/product_configurator/application_pages/surge_protection_for_measuring_and_control_technology_p-24-03/trabtech-msr)

<https://www.phoenixcontact.com/stopit>