

Application Note

DePro[®] FM5/1 Fuse Modules



The DEPRO[®] - FM5/1 fuse module provides a 5x20mm fuse and a return or neutral connection so it is the equivalent of a fuse terminal block and a feedthrough terminal block. Unlike a fuse terminal, the FM5/1 includes an LED circuit that indicates the power is applied and the fuse is healthy. Fuse terminals use fuse blown indication meaning the LED is on when the fuse has failed.

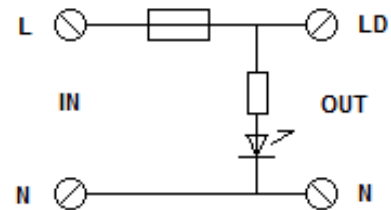


Figure 1

When used with PLC/DCS digital outputs the FM5/1 is most commonly connected as shown below in Figure 2. No additional terminal blocks are required. The LED indicates that the PLC/DCS output is active and the fuse is healthy.

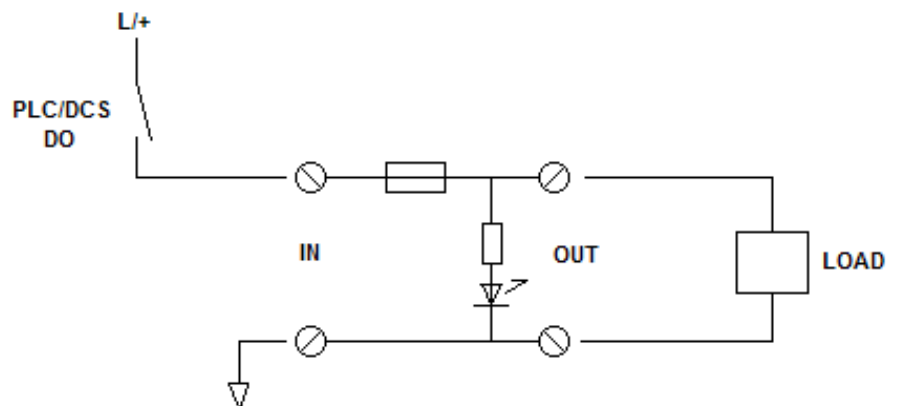


Figure 2

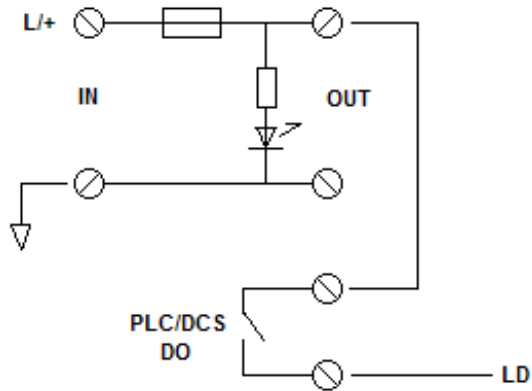


Figure 3

An alternative for digital outputs would be to have the FM5/1 provide power to the digital output. Looking at the Figure 3 configuration, the LED indicates power is available to the digital output but does not indicate the status of the output.

In Figure 4, a terminal block might be used for the neutral/OV connection for the load or the FM5/1 can be used for this connection.

When used with digital inputs the FM5/1 provides power to the field device, such as a dry contact as shown below in Figure 5. In this configuration the LED on the FM5/1 is a problem. If the return connection of the FM5/1 is used for the signal to the PLC/DCS digital input the LED current will likely energize the input regardless of the status of the field device. A separate terminal block is required for the signal connection.

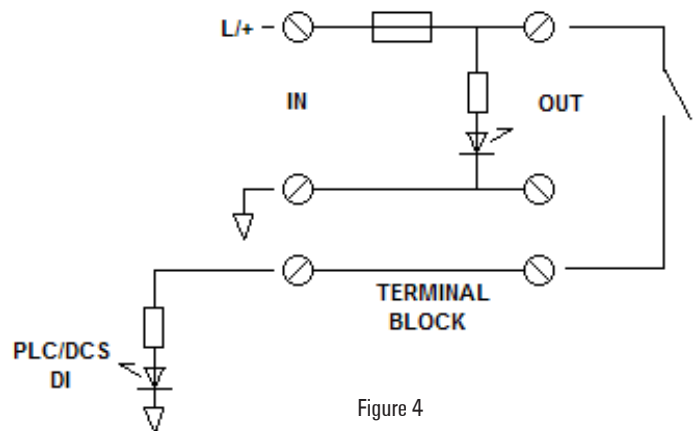


Figure 4

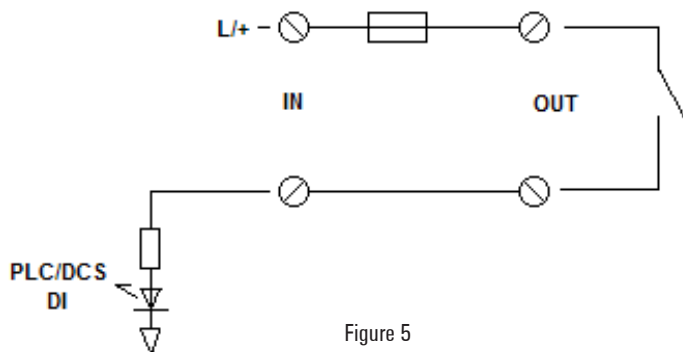


Figure 5

An alternative for digital input applications would be to use a non-indicating version of the FM5/1 (catalog number 330429-00000).

Weidmuller Ltd.

10 Spy Court
 Markham, ON
 Canada
 L3R 5H6
 Toll Free: (800)268-4080

www.klippon-engineering.com/emphatec