

Surge Protection for DeviceNet™ Networks

MCR-PLUGTRAB PT Pluggable Surge Protection for the 24 V DC power supply circuit and the CAN-high and CAN-low data signals

TRABTECH
Application Note
2106C

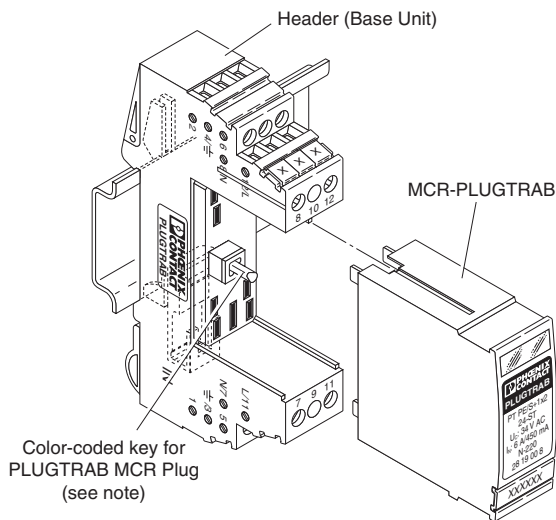
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1 Introduction

The MCR-PLUGTRAB PT consist of a header (PT PE/S+1x2-BE) and a plug (PT PE/S+1x2-24-ST). The header (base unit) attaches to standard DIN rail and the replaceable plug fits into the header (see Figure 1). The MCR-PLUGTRAB PT provides ideal protection for DeviceNet™ networks.



This surge protection device is suitable for any protocol based on the physical layer of CAN (e.g. DeviceNet, CANopen, NMEA 2000®).



Note

The PT PE/S+1x2-BE header can be used with different types of plugs having different functionality. To prevent accidentally inserting the wrong plug into the header, each plug comes with a color-coded key that automatically attaches itself to the header when first installed. Once installed, only plugs of the same type can be used.

Figure 1. Features of the MCR-PLUGTRAB PT

2 Dimensions

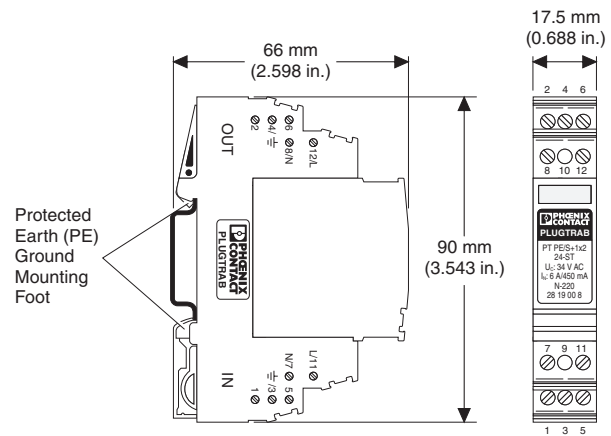


Figure 2. Dimensions

3 Circuit Diagram

The module is designed to protect both the 24 V DC power supply and the data signals (CAN-high and CAN-low).

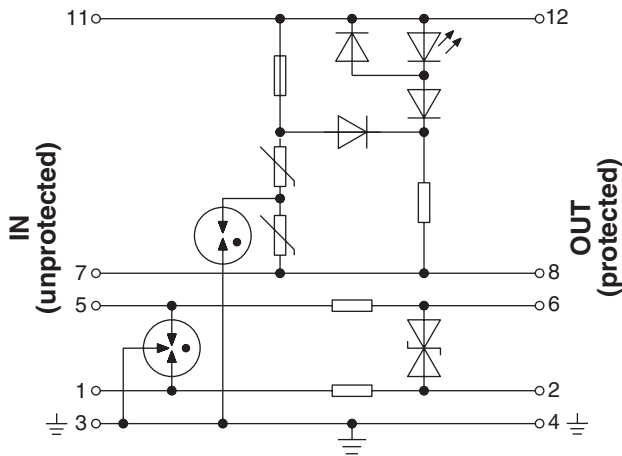


Figure 3. Circuit Diagram

Table 1 – Connections

Pin No.	Description
1 & 2	CAN-low (blue)
3 & 4	GND/shield
5 & 6	CAN-high (white)
7 & 8	Neutral (black)
9 & 10	Not used
11 & 12	±24 V DC (red)

4 Wire and Strip Length

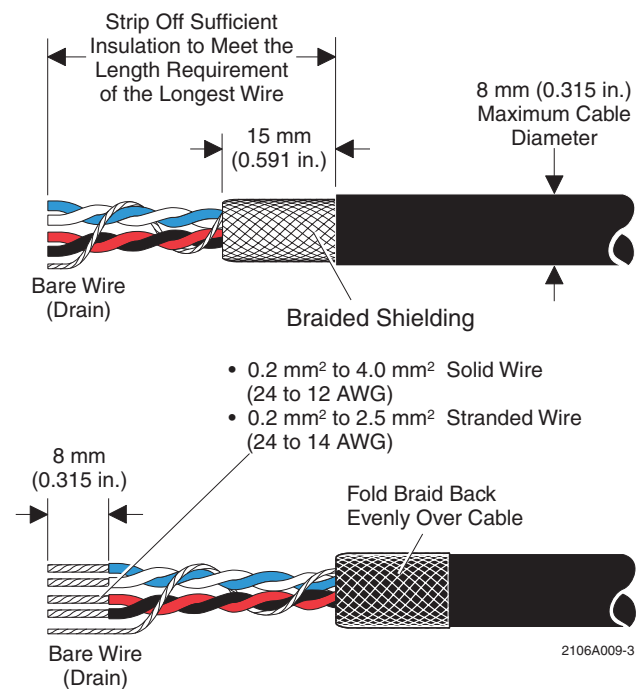


Figure 4. DeviceNet cable with two pairs of twisted-pair shielded cable

5 Products

Description	Type	Order No.
PLUGTRAB plug, DeviceNet	PT PE/S+1X2-24 ST	2819008
PLUGTRAB header	PT PE/S+1X2-BE	2856265

6 Application Example

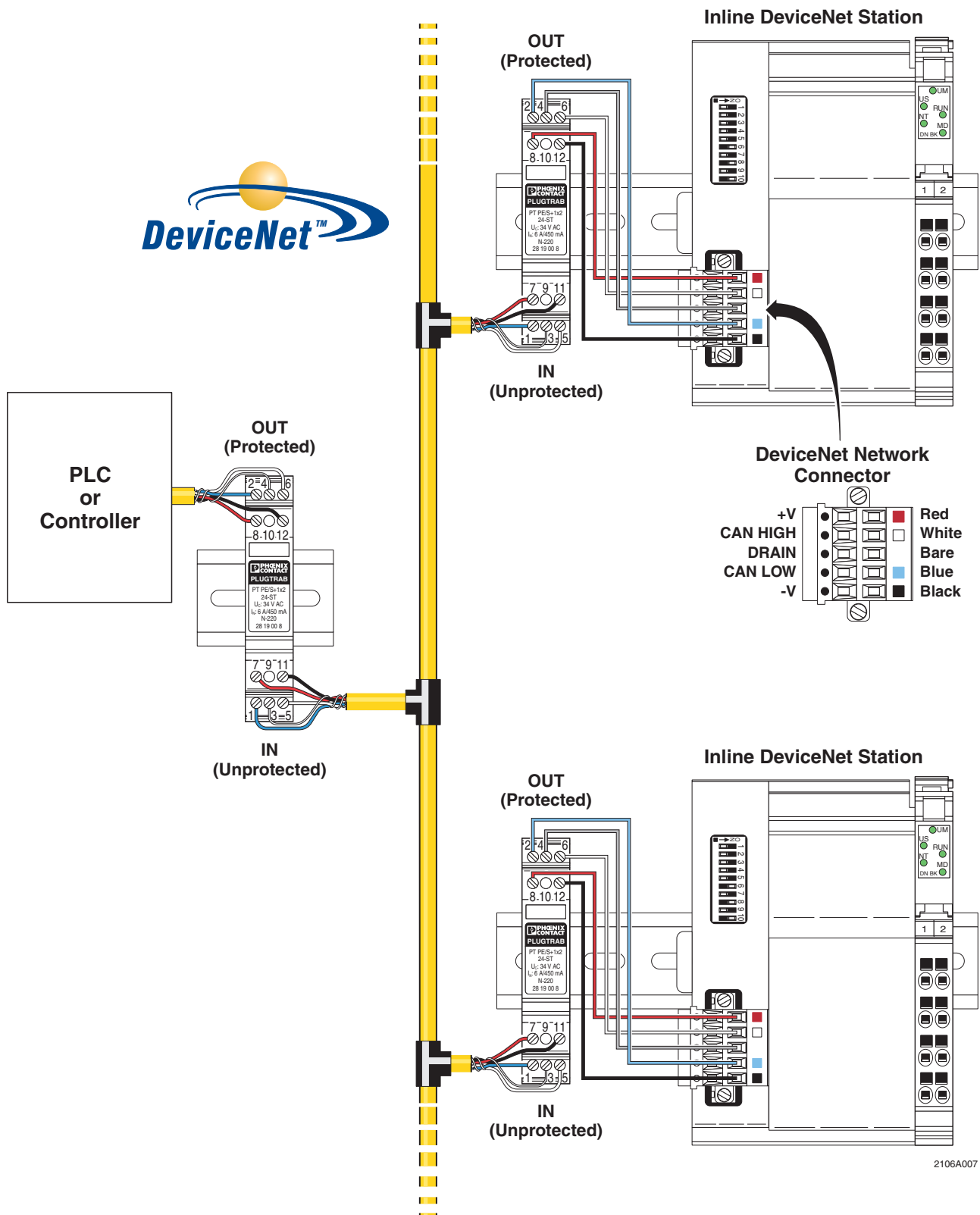


Figure 5. Figure 5. Application Example