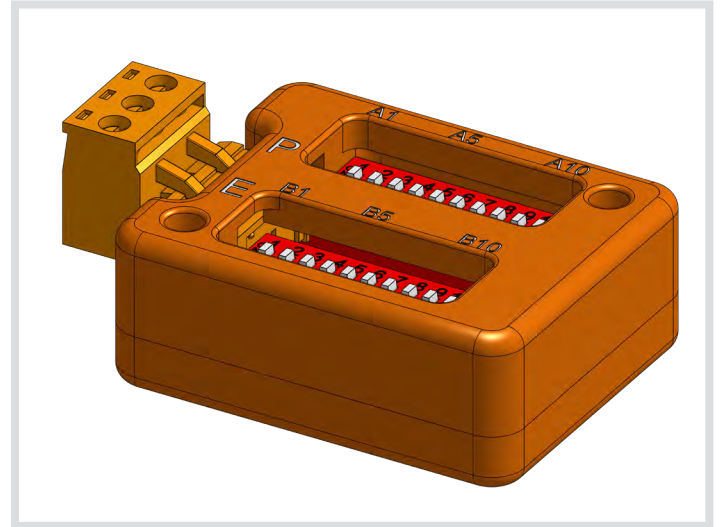


L12B0101 Snubber Filter Capacitor

Filter out unwanted electrical noise on the pilot check wire for trailing cable fed mobile equipment - with the Snubber Filter Capacitor from Pempek.

Used in conjunction with Pempek's AC VFD System Filter range - the Snubber Filter uses a lumped capacitance on the pilot conductor to avoid noise disturbance from disrupting sensitive earth monitoring circuits.



Related Parts

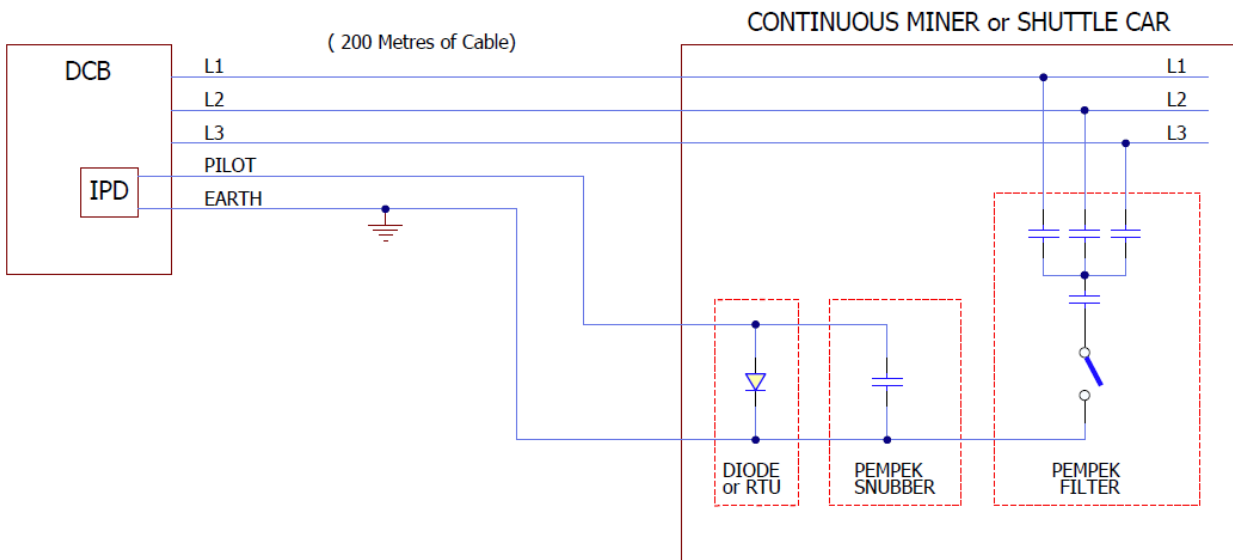
L10V0201 AC VFD System Filter (L107 Mounting)

L10V0401 AC VFD System Filter (LOWN Mounting)

L11V0101 AC VFD System Filter with Common Mode Choke (1140V)

L10W0101 AC VFD System Filter with MOV Protection (1140V)

Snubber Filter Capacitor Application



L12B0101 Snubber Filter Capacitor

Filtering Configuration

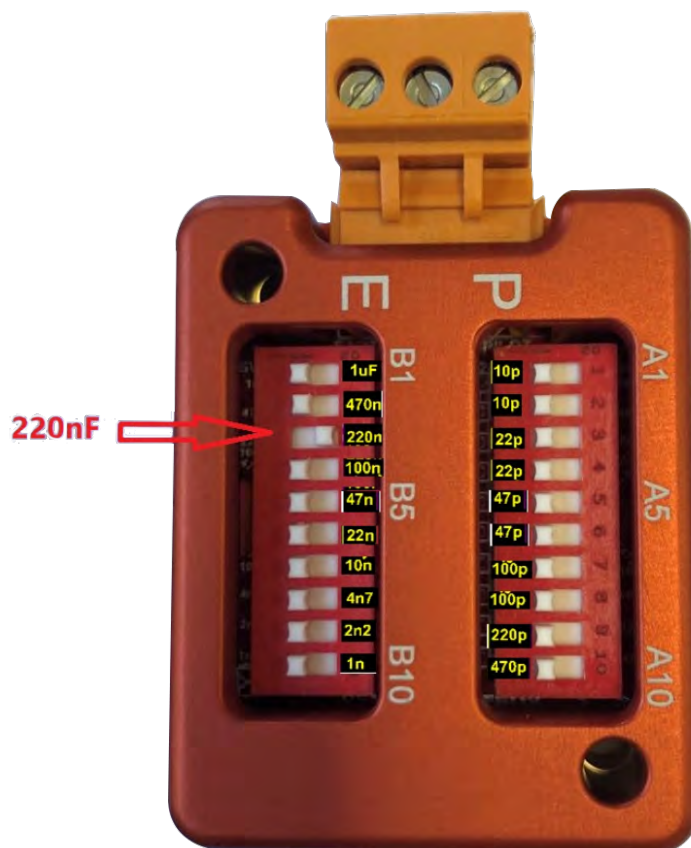
The Snubber Filter provides easy-to-access dip switches to enable a range of different filtering capacitance settings.

Pempek generally recommends 220 nF as a universal setting. However, different applications may require alternative values.

WARNING - Ensure that the capacitance value chosen is in compliance with any explosion-protection and/or intrinsic-safety requirements.

A total of twenty (20) dip switches are provided - with each one assigned to a particular capacitance value (refer to picture below).

1. IMPORTANT - When a switch is to LEFT position (as shown in the picture) the capacitor value is OFF (disconnected)
2. Chose which capacitance value is appropriate for the application (in this example 220 nF has been chosen)
3. For the chosen capacitance value - move the switch to the RIGHT (to the ON position)
4. It is also possible to combine various capacitance values to sum to a desired value. This is managed by moving more than one dip switch to the ON position. For example - 330 nF can be selected by putting the 220 nF and the 100 nF switch in the ON position
5. Once configured the Snubber Filter can be installed



L12B0101 Snubber Filter Capacitor

Special Handling Instructions

WARNING - The Snubber Filter is constructed of anodized aluminum. The aluminum content is greater than 15 % of the product's entire mass. Statutory requirements may be in place preventing the use of aluminum-based product in the hazardous area. To help manage the risk the following recommendations shall be followed:

1. The Snubber Filter shall only be installed and used in a certified flameproof enclosure (Ex d)
2. The anodized coating does provide protection against exposing raw aluminum surfaces to atmosphere - before entering a hazardous zone; the product shall be visually inspected to ensure that no significant un-coated aluminum is exposed
3. The product shall only be transported in the hazardous zone in a protective box or bag - so as to minimise the risk of exposure to the atmosphere

Installation Instructions

WARNING - it is recommended that only competent and recognised personnel install and maintain the Snubber Filter.

WARNING - Ensure Intrinsic-Safety requirements (such as those in IEC60079) are followed when selecting the installation location and when installing the wiring. Ensure adequate separation of conductors from other live parts (see IEC60079 and other applicable standards for guidance

1. Securely install the Snubber Filter in a certified Flameproof (Ex d) enclosure
2. Refer to the installation example diagram above (in the Application section of this document)
Connect the PILOT conductor (P) - supplied from the remote IPD device - to the terminal marked "P" on the Snubber Filter
3. Connect the EARTH conductor (E) - supplied from the remote IPD device - to the terminal marked "E" on the Snubber Filter
4. Following the installation - check that the R and L monitored values in the IPD base station are less than 50% to ensure optimal performance.

L12B0101 Snubber Filter Capacitor

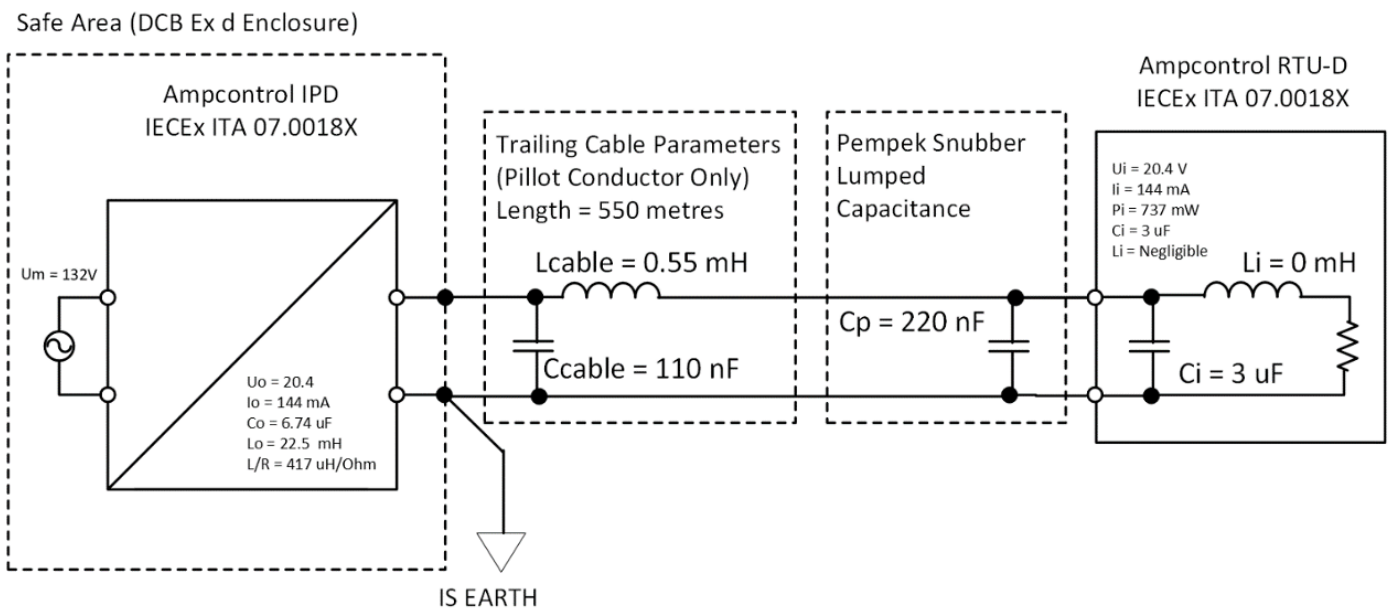
IS Circuit Compliance

Typically, the pilot conductor is considered to be an I.S. Circuit (IEC60079.11) when mains supply is de-energised. For this reason – it is strongly recommended that the affect on the circuit I.S. Parameters be evaluated, and determined to be within acceptable parameters, before the product is installed into a new application.

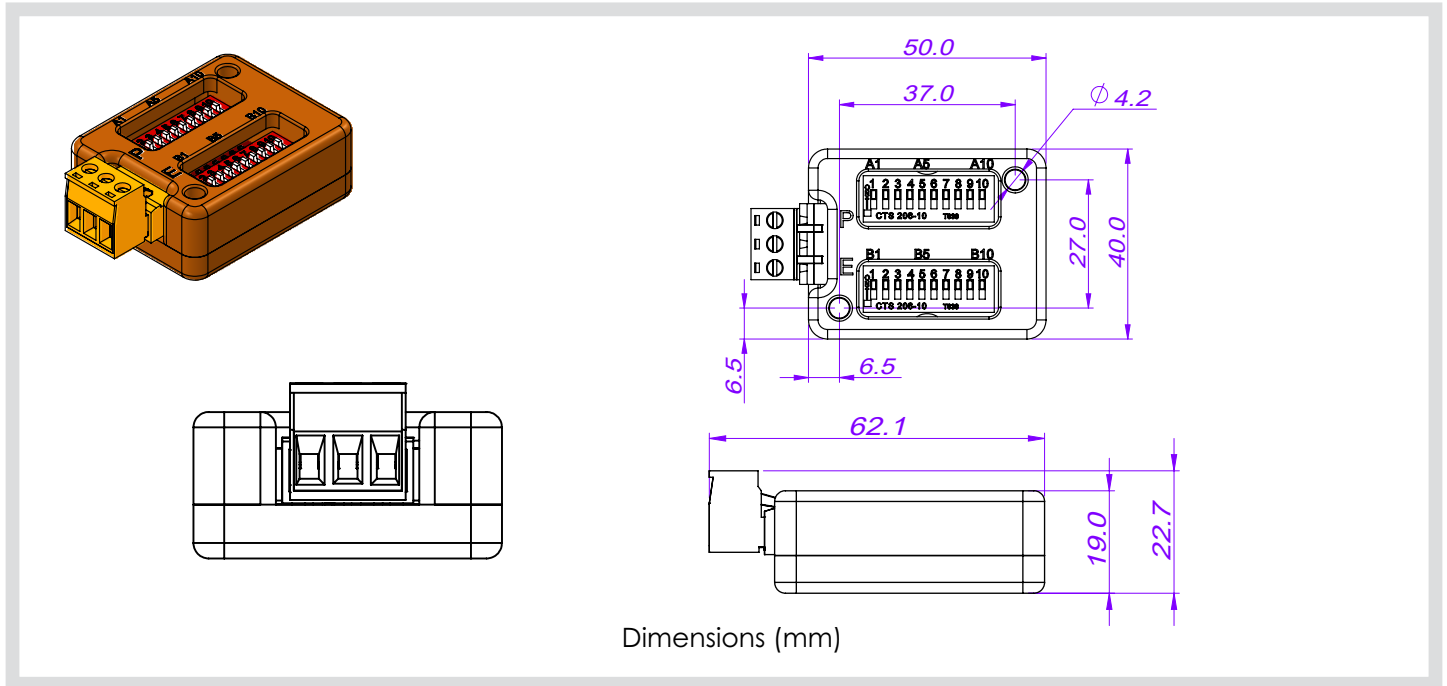
WARNING - An example I.S. Compliance study is shown below for end-user reference only. The end-user shall perform their own analysis to establish I.S. Circuit safety before the product is placed into service.

Example Circuit for Analysis

The Snubber Box is modeled as a pure, lumped capacitance for the purpose of I.S. Circuit parameter analysis as shown in the example below. In this example – the dip switches have selected a capacitance value of 220 nF.



L12B0101 Snubber Filter Capacitor



Dimensions (mm)