Data Surge Suppressor installation guide

Phason's Data Surge Suppressor protects four-wire, dual-pair communication lines from temporary high-voltage conditions caused by electrical interference, power surges, and lightning strikes.

Transient voltages, also known as surges or spikes, can travel through low-voltage data-signal lines (communication lines) and cause damage to equipment. Transient voltage surge suppression can greatly improve communication signal quality and increase the life of controls and other electronic equipment.

Features

- Three-stage lightning and transient protection for low-voltage data-signal lines
- Fault current protection
- Resettable solid-state fuses
- Fast response time
- Emergency bypass connection
- Rugged enclosure (corrosion resistant, water resistant, and fire retardant)
- Limited warranty (90 days)

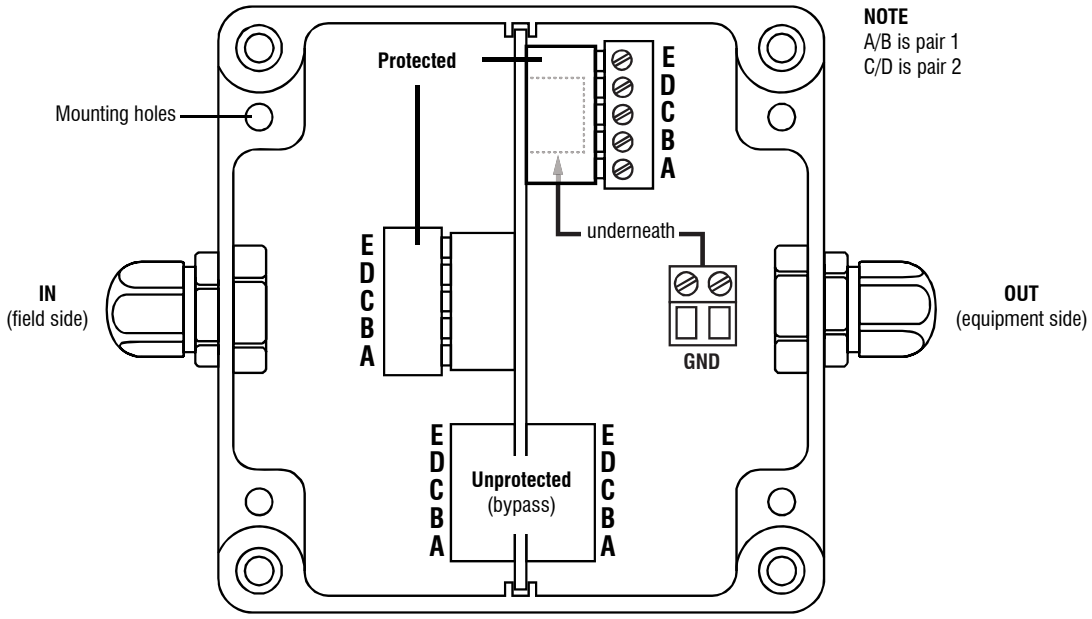
Recommendations

Phason recommends installing a Data Surge Suppressor between the RS485 Converter and the first device on the communication line, as well as at each entrance and exit of a building.

Examples

- If you have a RS485 Converter and single communication line in one building, you need one Data Surge Suppressor to install between the RS485 Converter and the first device.
- If you have a RS485 Converter and single communication line that goes through one building and into another, you need three Data Surge Suppressors: one to install between the RS485 Converter and the first device in building one, a second suppressor for where the cable exits building one, and a third suppressor for the entrance to building two.
- If you have an OMNI Select system with a Phason Communication Hub and four communication lines in one building, you need four Data Surge Suppressors to install between the hub and the first device on each channel.

Installing the Data Surge Suppressor



NOTE

- ◇ Ground the Surge Suppressor to the same building-approved ground that the protected equipment uses, *preferably within one foot*. Where this is not possible, such as building entrances, install the Surge Suppressor *within one foot* of a service panel ground bus.
- ◇ If the Surge Suppressor has sustained a fatal voltage spike and communications are not functioning, you can *temporarily* move the connectors to the unprotected sockets. Replace the Data Surge Suppressor as soon as possible.

To install the Data Surge Suppressor

1. Fasten the enclosure to a sheltered, vertical surface using the four screws provided.
2. Insert the communication cable through the strain reliefs.
3. Insert a ground wire through the **OUT** strain relief.
4. Connect the ground wire to one of the **GND** terminals.
5. Connect the communication wires to the connectors. Make sure to continue and connect the wires in the proper order: **A** to **A**, **B** to **B**, and so on.
6. Verify the ground and communication wires are connected to the proper terminals **at each end** of the cable.
7. Fasten the cover to the enclosure using the four screws.

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