

Installation Instructions

IPR IEP 120-10



smiths power

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Warning

1. Risk of Electric Shock or Burn.
 2. Important safety instructions. Read and understand all instructions before installing this product. Save these instructions for future reference.
 3. Installation shall be performed by qualified electrical technician only.
 4. All National and Local Electric Codes must be observed.
 5. Confirm that the device is rated for the voltage of the application.
 6. Before installation, turn off all power to equipment to prevent accidental electrical shock or injury.
 7. Replace all covers and doors before restoring power to this equipment.
 8. EXPLOSION HAZARD. Do not disconnect product, or remove/replace module unless power has been disconnected or the area is known to be free of ignitable concentrations of flammable gases or vapors.
 9. Substitution of any internal component is prohibited and may impair suitability for hazardous locations.
- ### Avertissement
1. Risque d'électrocution ou de brûlure.
 2. Consignes de sécurité importantes. Veuillez lire et comprendre toutes les consignes avant d'installer ce produit. Conservez ces consignes pour les consulter plus tard.
 3. L'installation doit uniquement être effectuée par un électricien qualifié.
 4. Tous les codes électriques nationaux et locaux doivent être respectés.
 5. Vérifiez que l'appareil possède le bon coefficient pour la tension de l'application.
 6. Avant l'installation, mettez complètement l'équipement hors tension afin d'éviter tout risque d'électrocution ou de blessure accidentelle.
 7. Remplacez tous les couvercles et toutes les portes avant de remettre l'équipement sous tension.
 8. RISQUE D'EXPLOSION. Ne débranchez pas le produit et ne retirez/ne remplacez pas de module à moins que l'alimentation ne soit coupée ou que vous ne soyez sûr que la zone est exempte de concentrations inflammables de gaz ou de vapeurs combustibles.
 9. Le remplacement d'un composant interne est interdit et risque de nuire à son adaptation aux zones dangereuses.

Thank you for your recent purchase of our surge protection solution. Your satisfaction with our product and service is important to us. If you have any questions, comments or concerns, please contact us at 800.882.9110 or visit our website at www.SmithsPower.com. We look forward to continuing to serve your protection needs. When installed in a tool-secured, IP54 rated enclosure, this product is suitable for the following hazardous locations:
 Class I Division 2 Groups A,B,C,D T6
 Class I Zone 2 AEx nA IIC T6 Gc

Installation Instructions

I²R IEP 120-10

INSTALLATION NOTES

The I²R IEP 120 -10 is a Type 2 SPD with replaceable module used to protect 120 Vac power supplies from over-voltage caused by transients. This SPD offers bidirectional silicon avalanche diode suppression technology and is intended for installation on the load side of the service equipment overcurrent device. The SPD is installed in parallel with the load. The replaceable SPD module features visual status indication. The normally black indicator turns red if module needs replacement. Electrically isolated Form C dry contacts provide remote monitoring capability.

ELECTRICAL RATINGS

Nominal Operating Voltage: $U_n = 120 \text{ Vac}$

Maximum Continuous Operating Voltage: $U_c = 150 \text{ Vac}$

Discharge Surge Current ($8 \times 20 \mu\text{s}$): $I_n = 5 \text{ kA}$, $I_{\text{max}} = 10 \text{ kA}$

Voltage Protection Level ($6 \text{ kV} / 3 \text{ kA} / 8 \times 20 \mu\text{s}$): $U_p = \leq 500 \text{ V}$

Operating Temperature: -40°C to $+70^\circ\text{C}$

INSTALLATION INSTRUCTIONS

1. Mounting: Position the SPD as close to the equipment being protected as possible in order to minimize the conductor length. The SPD should be attached to a securely mounted 35mm DIN rail. The SPD shall be mounted by positioning the terminal block end on the top edge of the DIN rail and pressing downward until a 'click' is heard (see Figure 2).
2. Wiring: The SPD shall be installed in parallel with the load or electrical system wiring using #6 AWG stranded (#4 AWG solid) wire. The torque to be applied to the terminal screws is 3.3 lb-ft (4.5 Nm). Interconnecting wire should be no longer than 20" (500mm) in total length with a maximum bend radius of 4" (100mm). Strip the wire insulation 5/16" (10mm). Do not loop or twist the interconnecting wire. Determine the electrical configuration and wire as shown in Figure 3.
3. Remote Annunciation: Electrically isolated Form C dry contacts provide remote monitoring capability. The removable plug accepts up to #16 AWG wire. The continuous current rating for the remote indicator is 1A @ 125 VAC maximum. Strip the wire 1/4" (7mm), and torque the terminal screw 1.8 lb-in (0.2 Nm). The terminal is labeled with Normally Open (NO), Normally Closed (NC) and Common (COM). Install signal wiring as shown in Figure 4.

USAGE AND MAINTENANCE

The SPD should be scheduled for periodic inspection to ensure the SPD is operational and all wire connections are tight.

If the SPD is damaged, contact Transtector for replacement.

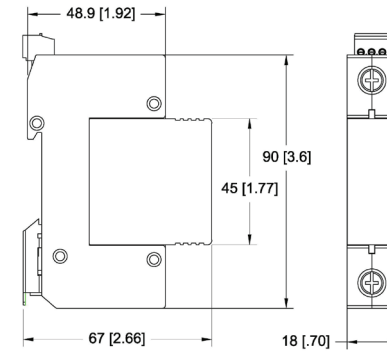


Figure 1 - Mechanical Outline Drawing (mm)

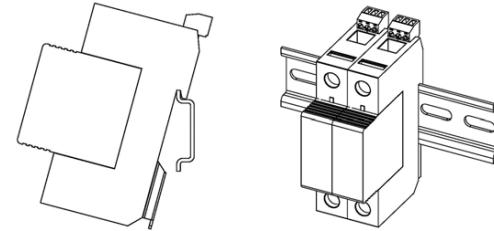


Figure 2 - Installation

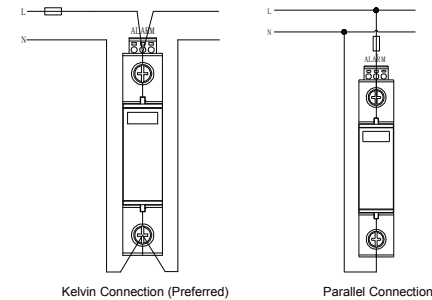


Figure 3 - Wiring Diagram

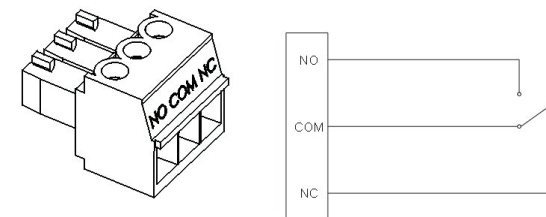


Figure 4 - Remote Contact Connections