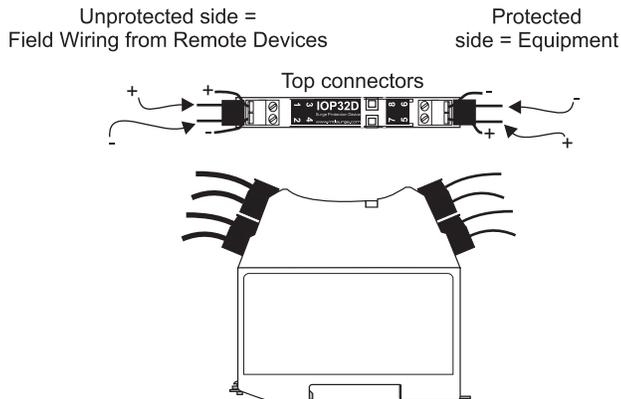


IOP Installation Guide



The unit is polarised as shown.

For full surge protection, the DIN rail mounting must be earthed (via the DIN rail or the screw connection).

For full protection, the unit must be connected so that the surge is expected on the unprotected side. The unit will then protect the devices on the protected side.

Installation

IOP devices are mounted as follows (see Figure 1):

- Hook the earthing clamp at the protected side of the base of the IOP unit over one flange of the DIN rail [1].
- Press down the protected area end of the IOP unit firmly until it clicks into position [2].
- Check that the IOP unit is securely clamped into place on both field and protected sides.

Note: It is essential to check that the earth connection has been made securely.

- To remove, insert the blade of a screwdriver down the protected side of the IOP unit [3] and lever the handle gently towards the IOP unit [4] and upwards to disengage the spring, freeing the unit from the rail [5].
- If using an electric screwdriver when connecting the signal wires, the torque settings should be between 0.4 and 0.6Nm.

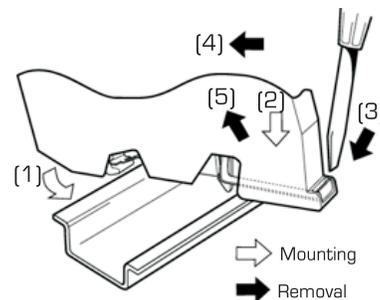


Figure 1 - Mounting/removing an IOP unit

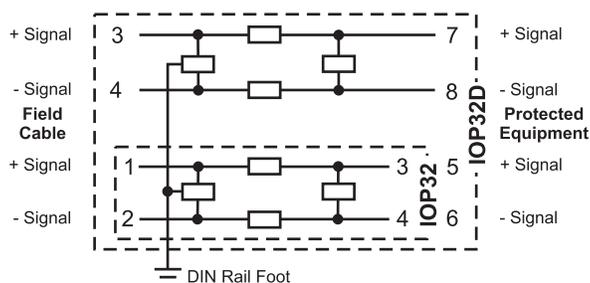
Earthing

Correct earthing procedures are essential for effective and safe surge protection. Each IOP unit has its earth connection made onto the DIN rail or screw terminal. Connection to the surge earth is made using an ETL earth terminal clamped to the DIN rail at either, or preferably both, ends of a row of IOP surge protectors.

- Locate the earth terminal next to the IOPs at the end of the row or connect directly to the screw terminal on the ground foot located on the unprotected side.
- Hook the earthing clamp over the flange of the DIN rail. Press down the other end of the terminal until it locates over the DIN rail. Firmly tighten the clamping screw in the central hole on top of the terminal. Check that the earth terminal is properly clamped to ensure that the earth connection has been made securely.
- The earth connection of the IOP should be made to the earth reference of the equipment to be protected. In practice, the earth connection is usually made to the 0V reference earth box in the equipment cubicle. The earth connection should be ≤ 1 metre in length and use wire size $\geq 2.5\text{mm}^2$.

Note: The overall earthing system is critical to effective operation of the surge protector. This may require re-routing of the system earthing and the installation instructions should be checked carefully.

IOP Series SPD



$U_L=60\text{V}$, $C_t=0$, $L_t=0$
 $U_p=U_L$, $I_p=I_t$, $P_p=P_t$
 $-30^\circ\text{C} \leq T_a \leq$ See Schedule



	IOP32/IOP32D
Working Voltage	30Vdc
Maximum Continuous Operating Voltage	32Vdc
Rated Load Current	0.70A
Loop Resistance	4 Ω
Maximum Surge Current	20kA [8/20 μ s]

EEx ia IIC T4
 BASEEFA 06 ATEX0036X

CAUTION: For use in an Ex environment, IOP must be mounted in a suitable enclosure.

Special Conditions for Safe Use

- The IOP Surge Protection Devices are not capable of withstanding the 500V voltage withstand test for one minute without breakdown to earth. This must be taken into consideration in any installation.
- When the IOP Surge Protection Device is mounted within a Hazardous Area the plastic enclosure is considered to present a potential electrostatic risk. Do not rub or clean with solvents.