

## Inventronics guidelines for EUM-DE and EUM-EE LED drivers in class I and class II applications

Inventronics' EUM-DE (1-10V ..) and EUM-EE (DALI-2 ..) LED drivers are designed for class I and class II luminaires. These products have a provision to divert Common Mode (CM) surges to 'ground' via a functional earth (FE) or an equipotential (EQUI) connection. If CM surges are not suppressed, then flashovers are possible between the LED driver's output (via the LED board) and metal luminaire parts. The FE/EQUI connection is not a safety earth terminal; it provides an equipotential bonding to metal parts of the luminaire enclosure.

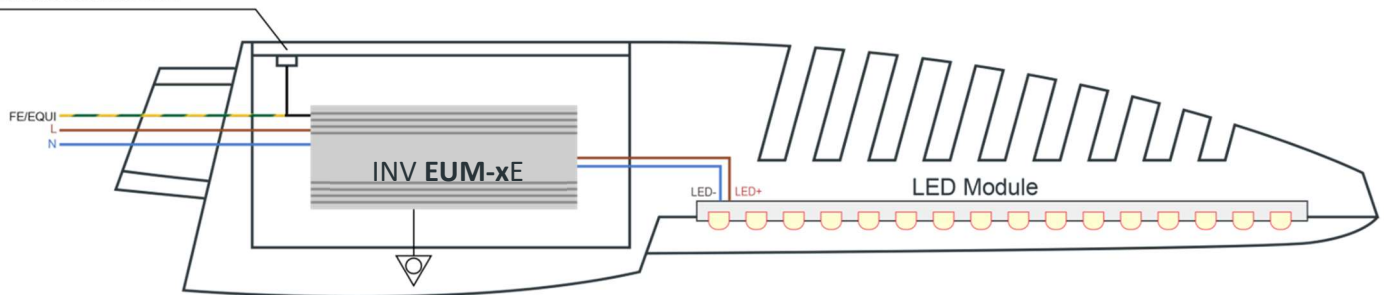
If the end product is a class I luminaire, then connect the EQUI terminal to the Protective Earth (PE) conductor from the power grid (whether directly or indirectly). If the end product is a class II luminaire, then connect the EQUI terminal to large metal parts of the luminaire enclosure which are electrically connected with the metal core PCB of the LED boards. The metal extrusion housing of EUM-DE and EUM-EE also functions as the EQUI connection.

If EUM-DE and EUM-EE are mounted on a not-conductive surface (or if the luminaire enclosure is separated from the LED driver enclosure) then you can use the (black colored) '3rd core' of the input cable. Otherwise, you can cap or ignore this wire and simply connect L and N. Inventronics recommends keeping the EQUI wires/cables as short as possible to maximize their effectiveness.

For questions regarding EUM-DE and EUM-EE wiring or any other questions please visit our website where there is a variety of tools and contact information <https://www.inventronics-co.com/>.

### Typical Class I Installation:

Connect EQUI/FE wire to PE wire / grounded metal frame of luminaire close to LED board



### Typical Class II Installation:

Connect EQUI/FE wire to grounded metal frame of luminaire close to LED board

