

SAFETY INFORMATION

- The LED module itself and all its components must not be mechanically stressed.
- Assembly must not damage or destroy conducting paths on the circuit board.
- Installation of LED modules (with power supplies) needs to be done in accordance with all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
- Pay attention to correct polarity ! Depending on the product incorrect polarity may cause malfunction and/or damage. Shut off power and change polarity immediately !
- **Do not hot-plug any modules.**
- Parallel connection is highly recommended as safe electrical operation mode. Serial connection is not recommended. Unbalanced voltage drop can cause hazardous overload and damage to the LED module.
- Please ensure that the power supply is of adequate power to match the total load of the connected LED modules.
- When mounting on metallic or otherwise conductive surfaces, there needs to be an electrical isolation at soldering points between module and the mounting surface.
- The maximum length of ITC modules with one power feed at one end is 500 cm unless otherwise stated in the specification sheet.
- Pay attention to standard ESD precautions when installing the module.
- All IP00/20 modules, as manufactured, have no coating and therefore offer no inherent protection against corrosion or mechanical impact.
- Damage by corrosion will not be honored as a materials defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture and condensation or other harmful elements.
- For applications involving exposure to humidity, water, salt-water, salty air environments, chemical ingress, dust, sand or any other possibly harmful particles, modules must have a protection grade of IP 54 up to 68 combined with a fixture or housing with a suitable protection class, all subject to the specific specification sheet of the used modules and approved application.

ASSEMBLY INFORMATION

- Connection with soldering wires to unmounted module: Do not pre-tin the solder-pads but pre-tin the wires and solder for max 4s at 300°C. Allow solder-points to completely cool down before the next soldering. Prevent shear- or peel forces.
- Soldering of wires with the module mounted on a heatsink: Pre-tin solder-pads and wires and solder for max 3 s at 300 °C. Allow solder-points to completely cool down before the next soldering. Prevent shear- or peel forces.
- The smallest unit can be removed by cutting with scissors between the designated solder pads.
- Mounting of the module is facilitated by the double-sided adhesive TESA Tesafix 4965 tape on the back-side of the module. Due to the special conditions of manufacturing processes of LED, the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product which could differ from the typical data. Subject to change without notice.
- Mounting surface must be clean and dry, free of oil and grease.
- The mounting substrate must have sufficient structural integrity. Take care to completely remove the protective foil (pink/red color) of the TESA tape. Once the module is appropriately positioned, press the module flat carefully on to the profile or bracket. **Do under no circumstances strike/wipe along the module with your fingers, thumbs or any other devices to press the module to a surface. This will cause serious damage to the module.**
- Maximum temperature ratings must be kept. Therefore the module must be mounted on an Aluminium heat sink unless otherwise expressly specified.
- The minimum bending radius (R) is 20 mm. The module may be bent over a smaller radius but only in regions of the circuit board containing no electronic components. However we do not warrant for the products functionality and lifespan in case of such mounting.
- Bending is only allowed within the bending axis of the PCB. Bending outside of that leads to torsion which may cause damage to the module and will lead to failure.
- When installing in environments with large variations in temperature (e.g. outdoor applications) and operating length of more than 2 m, the use of adequate mounting surfaces is necessary.

LED DRIVER INFORMATION

In order to drive ITC-LED-Modules safely, it is absolutely necessary to operate them with an electronically stabilized power supply protecting against short circuits, overload, overheating and surge peaks. Do only use electronic control gear for LED which carry the CE mark and are ENEC certified. In Europe the declarations of conformity must include the following standards: CE: EC 61347-2-13, EN 55015, IEC 61547 and IEC 61000-3-2 - ENEC: 61347-2-13 and IEC/EN 62384. Also check for the mark of an independent authorized certification institute.

We strongly recommend to install a surge peak protection device between driver and 230VDC power supply cable. This will also apply if a central protection device is installed in the main switch box.