

Enclosures

A large number of enclosure versions are available with different combinations of component materials, each one suitable to a specific installation: normal environmental conditions, high temperature environments, aggressive environments and environments that require electromagnetic compatibility. The principal parts are made in die cast aluminium alloy with a coating of epoxy-polyester powder or in self-extinguishing thermoplastic (CK and MK series). They are resistant to impacts and strong mechanical stress. The coupling stability and protection against accidental opening are assured by single or double closing devices comprising levers, springs and pegs in stainless steel or entirely in plastic (CK and MK series). Sealing is assured by special gaskets that protect the contact groups inside the enclosures against dust and aggressive agents. In general, the coupled enclosures with the appropriate connections guarantee an IP66 (CEI EN 60529) degree of protection. Furthermore, the majority of enclosures successfully complete the high pressure hot water jet test required by standard DIN 40050 - 9 with **IP69K** classification. A special, IP68 protection rated series is also available.



Our enclosures have been certified by UL as Recognised Components for the USA and Canada (UL mark) as accessories of our set of UL and CSA certified connector inserts (file UL E115072, file CSA 082270_0_000).

The certification has been achieved by successfully completing several tests carried out in compliance with standard **ANSI/UL 50** (Enclosures for Electrical Equipment) which is equivalent to the North American voluntary standard **NEMA 250** (NEMA = National Electrical Manufacturers Association) and to the equivalent Canadian standard **CSA C22.2 No.94** (Special Purpose Enclosures) for safety levels used in North America and required by the local installation codes (ex.: NFPA 70 National Electrical Code in the US, CSA system standards for Canada); more specifically:

- **Type 12** (= NEMA 12): for indoor use, similar to IP54 protection rating in compliance with standard IEC/EN 60529;
- **Type 4** (= NEMA 4): for outdoor and indoor use, similar to IP66;
- **Type 4X** (= NEMA 4X): for outdoor and indoor use, such as Type 4 + corrosion resistant, similar to IP66 protection rating.

The certification includes all the enclosures belonging to the **Standard** (grey), **W** (green), **R** (red), **S** (EMC) and **G** (IP68) series of all sizes, with Pg, ISO and NPT cable exits, all special versions referable to standard types, as well as CKA enclosures.

For further information, please contact I.L.M.E. SpA.