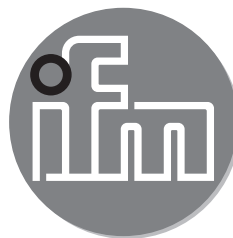


ifm electronic



Operating instructions

(Ex protection related part) for capacitive sensors
according to EU directive 94/9/EC annex VIII (ATEX)
group II, equipment category 3D

UK

efector150[®]

KD001A / KD501A

Remarks for safe use in hazardous areas

Functions and features

- Use in hazardous areas according to the classification

II 3D (group II, category 3D, apparatus for dust atmosphere).

Complies with the requirements of the standards EN 60079-0 and EN 60079-31.

- Marking

 **II 3D Ex tc III C T90°C Dc X IP65**

- Permissible operating temperature of the application (proper usage):

Ta: -20°C...+60°C

Installation / Set-up

The units must only be installed, connected and set up by qualified staff. The qualified staff must have knowledge of protection classes, regulations and provisions for apparatus in hazardous areas.

Check whether the classification (see "Marking" above and marking on the unit) is suitable for the application.

Installation remarks / Installation

- Adhere to the relevant national regulations and provisions.
- The relevant installation regulations must be adhered to. In particular, take into account the requirements relating to the temperature limitation as regards the expected dust deposits.
- Avoid electrostatic charging on housings and cables.
- To avoid electrostatic charging steps must be taken to ensure the equalisation of potential of metal parts (plug housing, fixing elements, etc.).
- Protect the units and the cables efficiently against damage.
- To avoid soiling, do not remove the dust caps from the cable glands or the plugs until introducing the cables or attaching the socket.
- It is the responsibility of the user to determine the appropriate tightening torques for the type of cable used. The cable glands and the cap nut have to be firmly tightened. If the connection thread or the cap nut is overtightened or undertightened, the type of connection, the tightness and the strain relief are impaired.
- The housing screws are to be fastened with 0.9 Nm, the fixing screws with max. 4 Nm.
- Maintenance intervals are application-specific and therefore need to be defined by the operator depending on the operating conditions.
- During maintenance, especially those parts on which the type of protection depends need to be examined (e.g. integrity of the components of the cable gland, of the seals).

Special conditions for safe operation

- For units with terminal chamber (cable gland) and cable units a sufficient strain relief must be ensured or the cable must be firmly laid.
- Do not disconnect the cables of units with terminal chamber while live.
- The housing and housing parts made of plastic were tested in accordance with EN 60079-0 for group II and for a low mechanical risk with an impact energy of 4 joules.
- Avoid direct radiation with high UV components (sunlight). Mount the unit in a protected place.
- Where units require an additional fuse, this must be located outside the hazardous areas.
- Units of the type KD must be mounted on a flat surface and the entire bottom must lie flat on the surface. When mounted with the ifm mounting sets E11121 or E11122, these requirements are met.

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Maintenance / repair

The unit must not be modified nor can it be repaired. In case of a fault please contact the manufacturer.

Data sheets, EC declaration of conformity and EC type test certificates are available from the manufacturer on request.