

## Versions

|                 |  |
|-----------------|--|
| KCD0-LGH        | empty housing, internal connection via jumpers possible, for intrinsically safe and non-intrinsically safe circuits              |
| KFD0-LGH        | empty housing, internal connection via jumpers possible, for intrinsically safe and non-intrinsically safe circuits              |
| KFD0-LGH-5T     | empty housing, internal connection via jumpers possible, for intrinsically safe and non-intrinsically safe circuits, 5 terminals |
| KFD0-LGH-Y34868 | empty housing, no internal connection possible   |
| KFD0-LGH-Y39343 | empty housing, internal connection via DIP switches possible, for intrinsically safe and non-intrinsically safe circuits         |
| KFD0-LGH-GN     | empty housing, internal connection via jumpers possible, only for intrinsically safe circuits                                    |

## Safety information

The corresponding data sheets and the declaration of conformity are an integral part of this document.

### Intended use

Laws and regulations applicable to the usage or planned purpose of usage must be observed. Devices are only approved for proper usage in accordance with intended use. Improper handling will result in voiding of any warranty or manufacturer's responsibility.

The devices are not suitable for the isolation of signals in power engineering.

Protection of operating personnel and the system is not ensured if the product is not used in accordance with its intended use.

### Installation and commissioning

Commissioning and installation must be carried out by specially trained and qualified personnel only.

### Installation of the interface devices in the safe area

The devices are constructed to satisfy the IP20 protection classification and must be protected from adverse environmental conditions such as water spray or dirt exceeding the pollution degree 2.

The devices must be installed outside the hazardous area!

The installation of the intrinsically safe circuits is to be conducted in accordance with the relevant installation regulations. It is especially important to ensure that all non-intrinsically safe circuits are safely isolated (see section "Internal connections").

The respective peak values of the field device and the associated device with regard to explosion protection should be considered when connecting intrinsically safe field devices with the intrinsically safe circuits of devices (demonstration of intrinsic safety). EN 60079-14/IEC 60079-14 is to be observed (where appropriate). The K\*D0-LGH\* is passive, the intrinsically safe data corresponds to that in the connected devices.

When connecting several intrinsically safe current circuits, these current circuits are to be considered as connected.

### Installation and commissioning of the interface devices within Zone 2/Div. 2 of the hazardous area

Only devices with the corresponding manufacturer's declaration of conformity or separate certificate of conformity can be installed in Zone 2/Div. 2.

The individual data sheets indicate whether these conditions are met.

The devices should be installed in a switch or junction box that:

- meets at least IP54 in accordance to EN 60529.
- meets to the requirements of resistance to light and resistance to impact according to EN 60079-0/IEC 60079-0.
- meets to the requirements of thermal endurance according to EN 60079-15/IEC 60079-15.
- must not cause ignition danger by electrostatic charge during intended use, maintenance and cleaning.

The installation of the intrinsically safe circuits is to be conducted in accordance with the relevant installation regulations. It is especially important to ensure that all non-intrinsically safe circuits are safely isolated (see section "Internal connections").

The respective peak values of the field device and the associated device with regard to explosion protection should be considered when connecting intrinsically safe field devices with the intrinsically safe circuits of devices (demonstration of intrinsic safety). EN 60079-14/IEC 60079-14 is to be observed (where appropriate). The K\*D0-LGH\* is passive, the intrinsically safe data corresponds to that in the connected devices.

When connecting several intrinsically safe current circuits, these current circuits are to be considered as connected.

The manufacturer's declaration of conformity should be observed. It is especially important to observe the "special conditions" if these are included in the certificates.

### Repair and maintenance

Maintenance is not required.

### Fault elimination

Only those changes that are listed in the section "Internal connections" may be performed on devices that are operated in connection with hazardous areas. Repairs to a device may also only be performed at these locations.

## Isolation coordinates for installations for galvanic isolation according to EN 50178 and EN 61140 or EN 60079-11

The devices are built-in devices or electronic equipment for use in secluded electrical operating sites where only skilled personnel or electrically instructed personnel will have admission or access.

The devices are assessed for pollution degree 2 and overvoltage category II according to EN 50178.

No insulation is present within terminals 1 to 4 and 5 to 8 of the KCD0-LGH and/or within terminals 1 to 6 and 7 to 15 of the KFD0-LGH\*.

Terminals 1 to 4 of KCD0-LGH are galvanically isolated from terminals 5 to 10 and/or terminals 1 to 6 of KFD0-LGH\* from terminals 7 to 15 in accordance with EN 50178/IEC 62103 up to a voltage of 300 V<sub>rms</sub> and/or. in accordance with EN 60079-11/IEC 60079-11 up to a peak value of the rated voltage of 375 V. This applies only if the internal connections are designed appropriately (see section "Internal connections").

## Technical data

### Electrical data

#### Non-intrinsically safe circuits

- Voltage within the circuit  $\leq 50$  V
- Current per channel  $\leq 2$  A
- Current per channel with common lead  $\leq 1$  A

#### Intrinsically safe circuits

- Voltage within the circuit  $\leq 40$  V
- Current per channel  $\leq 2$  A
- Current per channel with common lead  $\leq 1$  A

### Mechanical data

#### Mounting

- Snap-on 35 mm standard DIN rail acc. to EN 60715. Can be mounted horizontally or vertically, side by side.
- Panel mount: The lugs on the base of the modules must be extended and used for mounting purposes with 3 mm screws.
- K-MS mounting base for screw attachment

#### Housing material

Polycarbonate (PC)

#### Protection degree

IP20 acc. to EN 60529

#### Connection

removable connector with integrated self opening device terminals for leads of up to a max. of 1 x 2.5 mm<sup>2</sup> (14 AWG)

## Ambient conditions

### Ambient temperature

-20 °C to 60 °C (253 K to 333 K)

### Storage temperature

-40 °C to 90 °C (233 K to 363 K)

### Relative humidity

max. 95 % without moisture condensation

### Vibration resistance

acc. to EN 60068-2-6, 10 Hz to 150 Hz, 1 g, high crossover frequency

### Shock resistance

acc. to EN 60068-2-27, 15 g, 11 ms, half-sine

## Internal connections

Soldering may be performed only at the locations intended for this purpose.

Galvanic isolation of terminals 1 to 4 of the KCD0-LGH to terminals 5 to 10 and/or terminals 1 to 6 of the KFD0-LGH\* to terminals 7 to 15 is only present if one of the following conditions is met:

- The device corresponds to a device with the order code mentioned at the beginning and no modifications were made to the device.
- The device corresponds to a device with the order code mentioned at the beginning, only the DIP switch was activated and no modifications were made to the device.
- Connections were soldered, which all correspond to the following:
  - Connections only within terminals 1 to 4 and within terminals 5 to 10 of the KCD0-LGH and/or only within terminals 1 to 6 and within terminals 7 to 15 of the KFD0-LGH\* and no connection was made between these terminal groups.
  - Distance between the conductive part of terminals 1 to 4 and the conductive part of terminals 5 to 10 of the KCD0-LGH and/or the distance between the conductive part of terminals 1 to 6 and the conductive part of terminals 7 to 15 of the KFD0-LGH\* > 10 mm.
  - The wire has a diameter of  $\geq 0.5$  mm and is not longer than 50 mm.
  - The wire is fed through the printed circuit board and bent before soldering.