Instruction Manual

Marking
K-System, Isolated barriers for Zone 2
Device identification
Model number
ATEX approval

<table>
<thead>
<tr>
<th>Group, category, type of protection, temperature classification</th>
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<td>K-System, Isolated barriers for Zone 2</td>
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The exact designation of the device can be found on the name plate on the device side.

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Target Group, Personnel
Responsibility for planning, assembly, commissioning, operation, maintenance, and dismounting lies with the plant operator.

Observe the compliance of the separation distances between two non-intrinsically safe circuits according to IEC/EN 60079-14.

Observe the compliance of the separation distances to adjacent intrinsically safe circuits according to IEC/EN 60079-14.

If circuits with type of protection Ex i are operated with non-intrinsically safe circuits, they must no longer be used as circuits with type of protection Ex i.

If more channels of one device are connected in parallel, ensure the parallel connection is made directly at the terminals of the device. When verifying the intrinsic safety, observe the maximum values for the parallel connection.

Requirements for Equipment Protection Level Gc
The device must be installed and operated only in surrounding enclosures that:

- comply with the requirements for surrounding enclosures according to IEC/EN 60079-0,
- are rated with the degree of protection IP54 according to IEC/EN 60529.

Connection or disconnection of energized non-intrinsically safe circuits is only permitted in the absence of a potentially explosive atmosphere. Provide a transient protection. Ensure that the peak value of the transient protection does not exceed 140 % of the rated voltage.

Place warning label "Warning – Do not remove or replace fuse when energized" visibly on the housing.

Operation, Maintenance, Repair
The devices must not be repaired, changed or manipulated. If there is a defect, the product must always be replaced with an original device.

If the rated voltage is greater than 50 V AC, proceed as follows:

1. Switch off the voltage.
2. Connect the terminal blocks or disconnect the terminal blocks.

Requirements for Equipment Protection Level Gc
Connection or disconnection of energized non-intrinsically safe circuits

- Only use the programming socket in the absence of a potentially explosive atmosphere.
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Improper Use
Protection of the personnel and the plant is not ensured if the device is not being used according to its intended use.

The device is not suitable for isolating signals in power installations unless this is noted separately in the corresponding datasheet.

Mounting and Installation
Do not mount a damaged or polluted device.

Mount the device in a way that the device is protected against mechanical hazard. Mount the device in a surrounding enclosure for example.

Do not mount the device in the dust hazardous area.

The device fulfills a degree of protection IP20 according to IEC/EN 60529.

The device must be installed and operated only in an environment that ensures a pollution degree of 600 nF (including cable).

The total value of C_l (excluding cable) of the circuit is < 1 % of the specified C_l value.

A maximum of 50 % of the specified value for L_l and C_l is used if the following condition applies:

The total value of L_l (excluding cable) of the circuit is ≥ 1 % of the specified L_l value.

The total value of C_l (excluding cable) of the circuit is ≥ 1 % of the specified C_l value.

The reduced capacitance for gas groups I, IIA and IIB must not exceed the value of 1 µF (including cable).

The reduced capacitance for gas group IIC must not exceed the value of 600 nF (including cable).

When connecting intrinsically safe devices with intrinsically safe circuits of associated apparatus, observe the maximum peak values with regard to explosion protection (verification of intrinsic safety).

Observe the standards IEC/EN 60079-14 or IEC/EN 60079-25.

If no L_l and C_l values are specified for the simultaneous appearance of lumped inductances and capacitances, the following rule applies.

- The specified value for L_l and C_l is used if one of the following conditions applies:
  - The circuit has distributed inductances and capacitances only, e. g., in cables and connection lines.
  - The total value of L_l (excluding cable) of the circuit is < 1 % of the specified L_l value.
  - The total value of C_l (excluding cable) of the circuit is < 1 % of the specified C_l value.

Requirements for Usage as Associated Apparatus
If circuits with type of protection Ex i are operated with non-intrinsically safe circuits, they must no longer be used as circuits with type of protection Ex i.

Intrinsically safe circuits of associated apparatus can be led into hazardous areas. Observe the compliance of the separation distances to all non-intrinsically safe circuits according to IEC/EN 60079-14.

Observe the compliance of the separation distances between two adjacent intrinsically safe circuits according to IEC/EN 60079-14.

Observe the maximum values of the device, when connecting the device to intrinsically safe apparatus.