Instructions

Pressure Transmitter LHCR-51, LHCS-51 4 mA ... 20 mA HART, PROFIBUS PA

Ex ic IIC T6...T4 Gc

IECEx DEK 13.0056



SI00493O-B

Safety instructions for electrical apparatus for explosion-hazardous areas according to IEC standards

SI00493O-B/98/EN/14.13 71226288





Pressure Transmitter LHCR-51, LHCS-51

4 mA ... 20 mA HART, PROFIBUS PA

| Associated Documentation | This document is an integral part of the following operating instructions: BA00382O. The operating instructions which are supplied and correspond to the device type apply. | | |
|--------------------------------|--|-------------------|--|
| Supplementary Documentation | Explosion protection manual | | |
| Designation | Explanation of the labelling and type of protection can be found in the explosion protection manual. | | |
| | Designation according to IECEx Equipment protection level (EPL) | Gc | |
| | Designation of type of protection/ level of protection | Ex ic IIC T6T4 Gc | |
| Applied standards | IEC 60079-0:2011 | | |
| | IEC 60079-11:2011 | | |





Figure 1

- A Power supply
- B Zone 2, Electronic
- C Zone 2, Process
- 1 Certified associated apparatus
- 2 LHCR-51or LHCS-51
- 3 Option: Separate housing
- · Comply with the installation and safety instructions in the Operating Instructions.
- Install the device according to the manufacturer's instructions and any other valid standards and regulations.
- Only install the devices in media for which the wetted materials have sufficient durability.
- Avoid electrostatic charging of the plastic surfaces, for plastic process connections or plastic coatings.
- The intrinsically safe input power circuit of the device is isolated from ground potential and has a
 dielectric strength of at least 500 V_{rms} with respect to it.
- Avoid impact or friction sparks for light metal flanges or flange faces (e. g. titanium, zirconium).
- In case of additional or alternative special varnishing of the enclosure or other metallic parts the danger of an electrostatic charging must be observed. Do not rub surfaces with dry cloth.

LHCR-51

• Mechanically fix rod probes which are more than 3 m (e. g. using guy ropes).

LHCS-51

- Avoid electrostatic charging of the cable.
- Secure probes against swinging.

Service connection

• For service operations a field communicator can be connected to the display socket.

Comply with the safety instructions of the field communicator.



Temperature tables

| Туре | Type of protection/ level of protection | Temperature class | Process temperature | Ambient temperature (housing) |
|---------|--|----------------------|------------------------|--|
| LHCR-51 | Ex ic IIC T6T4 Gc | Т6 | ≤ 80 °C | $-40 \ ^{\circ}\text{C} \le \ Ta \le \ +40 \ ^{\circ}\text{C}$ |
| | | T4 | \leq 85 °C | -40 °C \leq Ta \leq +70 °C |

The process temperatures refer to the temperature at the rod (do not exceed the max. ambient temperature at the housing).

| Туре | Type of protection/ level of protection | Temperature class | Process temperature | Ambient temperature (housing) |
|---------|--|----------------------|------------------------|--|
| LHCS-51 | Ex ic IIC T6T4 Gc | Т6 | \leq 80 °C | $-40~^{\circ}C \leq Ta \leq +40~^{\circ}C$ |
| | | T4 | \leq 80 °C | -40 °C \leq Ta \leq +70 °C |

The process temperatures refer to the temperature at the cable (do not exceed the max. ambient temperature at the housing).

Connection data

| Electronic insert | Electrical data |
|-------------------|------------------|
| 4 mA 20 mA HART | $Ui \le 45 V DC$ |
| | li ≤ 300 mA |
| | $Pi \leq 1 W$ |
| | Ci ≤ 10 nF |
| | Li = 0 |
| PROFIBUS PA | Ui ≤ 32 V DC |
| | li ≤ 250 mA |
| | $Pi \leq 1.2 W$ |
| | Ci ≤ 5 nF |
| | Li ≤ 10 µH |

ΕN



With regard to the supply of products, the current issue of the following document is applicable: The General Terms of Delivery for Products and Services of the Electrical Industry, published by the Central Association of the "Elektrotechnik und Elektroindustrie (ZVEI) e.V." including the supplementary clause: "Erweiterter Eigentumsvorbehalt".

PROCESS AUTOMATION – PROTECTING YOUR PROCESS



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