

# Instruction Manual

## Marking




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| Bullet WirelesHART Adapter<br>WHA-BLT-F9D0-N-A0-Z0-Ex1  |
| EC-Type Examination Certificate: FM 11 ATEX 0019 X<br> II 1 G Ex ia IIC T6/T5 Ga<br> II 1 D Ex ia IIIC T95 °C Da        |
| Certificate: FM 11 ATEX 0068 X<br> II 3 G Ex nA IIC T6/T5 Gc  |
| FM approval: CoC3040786(C)<br>Class I, Zone 0, (A)Ex ia IIC T6/T5 Ga<br>Class I, Zone 2, (A)Ex nA IIC T6/T5 Gc<br>Class I, Zone 20, (A)Ex ia IIIC T95°C Da<br>Class I, Division 1, Groups A - D<br>Class II, Division 1, Groups E - G<br>Class III<br>Class I, Division 2, Groups A - D |
| IECEX approval: IECEX FMG 11.0010X<br>Ex ia IIC T6/T5 Ga<br>Ex nA IIC T6/T5 Gc<br>Ex ia IIIC T95°C Da   |

table 1

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table 2

## Validity

Specific processes and instructions in this instruction manual require special provisions to guarantee the safety of the operating personnel.

Responsibility for planning, assembly, commissioning, operation, maintenance, and dismantling lies with the plant operator.

The personnel must be appropriately trained and qualified in order to carry out mounting, installation, commissioning, operation, maintenance, and dismantling of the device. The trained and qualified personnel must have read and understood the instruction manual.

## Reference to Further Documentation

Observe laws, standards, and directives applicable to the intended use and the operating location. Observe Directive 1999/92/EC in relation to hazardous areas.

The corresponding datasheets, manuals, declarations of conformity, EC-type-examination certificates, certificates, and control drawings if applicable (see datasheet) are an integral part of this document. You can find this information under [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

Due to constant revisions, documentation is subject to permanent change. Please refer only to the most up-to-date version, which can be found under [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

## Intended Use

The device is only approved for appropriate and intended use. Ignoring these instructions will void any warranty and absolve the manufacturer from any liability.

Use the device only within the specified ambient temperature range.

The device is used in control and instrumentation technology (C&I technology) for wireless data transfer from HART devices.

Take the intended use of the connected devices from the corresponding documentation.

## Improper Use

Protection of the personnel and the plant is not ensured if the device is not used according to its intended use.

## Mounting and Installation

Prior to mounting, installation, and commissioning of the device you should make yourself familiar with the device and carefully read the instruction manual.

Do not mount the device at locations where an aggressive atmosphere may be present.

Do not mount a damaged or polluted device.

Avoid electrostatic charges which could result in electrostatic discharges while installing or operating the device.

If the device has already been operated in general electrical installations, the device may subsequently no longer be installed in electrical installations used in combination with hazardous areas.

Observe the installation instructions according to IEC/EN 60079-14.

Connection or disconnection of energized non-intrinsically safe circuits is only permitted in the absence of a potentially explosive atmosphere.

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.

The usage of 2400 MHz equipment is bound to local restrictions. Ensure that local restrictions allow usage of this device before commissioning.

Observe the respective peak values of the field device and the associated apparatus with regard to explosion protection when connecting intrinsically safe field devices with intrinsically safe circuits of associated apparatus (verification of intrinsic safety). Also observe IEC/EN 60079-14 and IEC/EN 60079-25.

Keep the separation distances between all non-intrinsically safe circuits and 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.

If no  $L_o$  and  $C_o$  values are specified for the simultaneous appearance of lumped inductances and capacitances, the following rule applies.

- The specified value for  $L_o$  and  $C_o$  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  $L_i$  (excluding cable) of the circuit is  $< 1\%$  of the specified  $L_o$  value.
  - The total value of  $C_i$  (excluding cable) of the circuit is  $< 1\%$  of the specified  $C_o$  value.
- A maximum of 50 % of the specified value for  $L_o$  and  $C_o$  is used if the following condition applies:
  - The total value of  $L_i$  (excluding cable) of the circuit is  $\geq 1\%$  of the specified  $L_o$  value.
  - The total value of  $C_i$  (excluding cable) of the circuit is  $\geq 1\%$  of the specified  $C_o$  value.
- The reduced capacitance for gas groups I, IIA, and IIB must not exceed the value of  $1\ \mu\text{F}$  (including cable). The reduced capacitance for gas group IIC must not exceed the value of  $600\ \text{nF}$  (including cable).

Provide a transient protection. Ensure that the peak value of the transient protection does not exceed 140 % of the rated voltage.

Observe the tightening torque of the screws.

The device provides a grounding terminal to which an equipotential bonding conductor with a minimum cross section of  $4\ \text{mm}^2$  must be connected.

Observe the grounding requirements for type of protection Ex i according to IEC/EN 60079-14.

The associated apparatus must provide a characteristic which is limited by a resistor.

Mark permanently the selected type of protection for your specified application. Use the tick box on the nameplate for that. It is forbidden to change this marking afterwards.

The device contains aluminum. Thereby the device is considered to constitute an ignition hazard by impact effect or friction. Avoid impact effect or friction during mounting and operating.

Ensure that the degree of protection is not violated by the conduit.

Use seals that are suitable for the specified application.

## Requirements for Cables and Connection Lines

Observe the permissible cable type and cable length given in the respective hazardous area certificate.

Regarding the verification of intrinsic safety, observe the maximum permissible external capacitance of this device and the other devices in the circuit.

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|----------------------------|------------------|
| External capacitance $C_o$ | 22 $\mu\text{F}$ |
|----------------------------|------------------|

table 3

Install cables and cable glands in a way that they are not exposed to mechanical hazards.

Protect cables and cable glands from tensile load and torsional stress or use certified cable glands.

Unused cables and connection lines must be either connected to terminals or securely tied down and isolated.

## Requirements for Cable Glands

Only use cable glands that are suitably certified for the application.

Only use cable glands with a temperature range appropriate to the application.

For cable glands only use incoming cable diameters of the appropriate size.

Ensure that the degree of protection is not violated by the cable glands.

## Operation, Maintenance, Repair

Do not repair, modify, or manipulate the device.

If there is a defect, always replace the device with an original device.

When the device is in operation, maintain at all times a distance of at least 20 cm to the device antenna. This also applies to any other person in the vicinity of the device.

## Delivery, Transport, Disposal

Check the packaging and contents for damage.

Check if you have received every item and if the items received are the ones you ordered.

Keep the original packaging. Always store and transport the device in the original packaging.

Store the device in a clean and dry environment. The permitted ambient conditions must be considered, see datasheet.

Disposing of device, packaging, and possibly contained batteries must be in compliance with the applicable laws and guidelines of the respective country.