



## Installation guide

This Installation Guide is valid only for Ex Fiber Optic Junction Box (EXJB).



For your safety please read this guide carefully.

Failure to follow the instructions in this guide will render **ALL** certifications **INVALID**.

### 1. Installation

Installation of the EXJB must be completed by a skilled technician or engineer. Failure to comply with the instructions below will render all certifications **INVALID**. The EXJB may **not** be modified by the customer.

1. Insure that power is off.
2. Connect to earth prior to proceeding. Observe precautions for handling **ESD** (ElectroStatic Discharge) sensitive devices
3. **Use only shielded cable**. Temperatures at the cable entry can reach 80° C. Selection of cable must be appropriate for the ambient temperature range in which the product is used.
4. Use **only** suitably certified Ex db IIC Gb/Ex tb IIIC Db cable glands (or blind plugs, if no cable is attached) minimum rated for these applications or superior (see marking below). Cable entry threads are M20 x 1,5. The EXJB housing is provided with four of them.

**When fibre optic** cable is used, glands must be suitably certified for use with the type of cable so as to maintain the type of protection (Ex db/Ex tb).

Each entry shall have no more than one thread adapter when an adaptor is used. A blanking element shall not be used with an adapter.

5. Assemble cable through Ex-Proof Cable Gland. Be sure of enough length of wire extend completely through gland.
6. Remove the protective plastic insert(s) from the cable gland outlet(s). This must be done **prior** to final installation.
7. Remove Cover from EXJB.
8. Push wires through Cable Gland and hole in housing.
9. Screw Cable Gland into housing and tighten.

Estimate required wire length needed for insertion into Terminal Blocks. **NOTE** – *wire lengths will vary depending on which terminal they will be inserted into.*

10. Cut wires to proper lengths and insert into terminals.
11. Attach Cover to EXJB and tighten screws; M8 – 25 Nm torque.
12. Connect encoder Circuit Ground (GND).
13. Connect remaining Output wires to PLC. Then apply power (**insure the Supply Voltage is correct!**).
14. If used, safety screws in the Removable End Cap shall have a minimum yield stress of 450 MPa, class A4-70.
15. Precautions must be taken to avoid dust from forming layers on the EXJB.
16. It is strongly recommended that the original packaging be used for any additional shipping or transport.

## Caution

- **DO NOT connect EXJB when power is on.**
- **DO NOT connect output wires to supply voltage.**
- **WARNING: Do not open when an explosive atmosphere is present!**
- **DO NOT strike EXJB with hammer or any other heavy object.**
- **WARNING: Open circuit before removing cover. Keep cover tight while circuits are alive**
- **If EXJB is mounted to electrical machinery with high current or high voltage on the shaft, precautions must be taken for galvanic separation.**
- **Maintenance is not necessary. Any required maintenance or repair is to be done only by the manufacturer.**
- **No modifications may be made to the flamepaths of the enclosure.**
- **To minimize the risk from electrostatic discharge - clean only with a damp cloth.**
- **It is a condition of certification that the precautions must be taken to avoid dust from forming layers on the encoder.**
- **Temperatures at the branching point can reach 80°C. Selection of cable must be appropriate for the ambient temperature range in which the product is used !**
- **Use only fasteners with a minimum yield stress of 450 MPa, class A4-70**
- **Only suitably certified cable glands, fittings, and/or blind plugs may be used.**

## 2. Electrical ratings (typical):

### 2.1 Transmitter:

Supply voltage:	4.75V to 30V
Current consumption:	240 mA @ Vsup = 5V (excl. encoder)
	160 mA @ Vsup = 15V(excl. encoder)
	100 mA @ Vsup = 30V(excl. encoder)

## 2.2 Receiver:

Supply voltage: 4.75V to 30V  
 Current consumption: 180 mA @ Vsup = 5V (excl. encoder)  
                               70 mA @ Vsup = 15V(excl. encoder)  
                               45 mA @ Vsup = 30V(excl. encoder)

## 3. ATEX Marking:



II 2 G Ex db IIC T6 Gb  
 II 2 D Ex tb IIIC T85°C Db  
 Tamb = -20°C to +70°C



1) It is place for the specific number for the QAN issuer.

## 4. Certification numbers:

ITS09ATEX16831X

See certifications at [www.scancon.dk](http://www.scancon.dk)

## 5. The device complies with the following standards:

EN 60079-0 :2018	Explosive atmospheres - Part 0: Equipment – General requirements
EN 60079-1 :2014	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
EN 60079-31 :2014	Explosive Atmosphere – Part 31: Equipment dust ignition protection by enclosure "t"

*NOTE: Adding/removing data or changing the layout of this document, which does not conflict with the actual data and QPS, ATEX/IECEX certification, does not need to be notified by Certification Body, as well as the new revision number following the changes.*