Type EXME
Installation Guide

EXME-Hollow Shaft

EXME – Shaft

Installation guide

This Installation Guide is valid only for encoder types EXME.

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 encoder must be completed by a skilled technician or engineer. Failure to comply with the instructions below will render all certifications **INVALID**. **The encoder may <u>not</u> be modified by the customer**.

1.1. Insure that power is off.

1.2. Connect to earth prior to proceeding. Observe precautions for handling **ESD** (**E**lectro**S**tatic **D**ischarge) sensitive devices

1.3. When installing the Hollow Shaft encoder, check that the encoder fixing clamp is loose. Then slide the encoder hollow bore over the motor shaft (or other device).

1.4. Align encoder spring coupling or torque arm mounting hole(s) with motor face plate hole(s). Insert screws into mounting holes and tighten.

1.5. Tighten fixing clamp M3 screw (maximum 1.5 Nm (1.12 lbft) torque).

1.6. **Use <u>only</u> shielded cable**. Temperatures at the cable entry can reach 85 °C. Selection of cable must be appropriate for the ambient temperature range in which the product is used.

1.7. Use **<u>only</u>** EX db certified cable glands (or blind plug, if no cable is attached) minimum rated for these applications or superior (see marking below). Cable entry threads are M20 x 1,5; M25 x 1,5; ½" NPT; ¾" NPT. The encoder housing can be provided with up to four of them on the non-drive end shield.

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.

1.8. Assemble cable through Ex-Proof Cable Gland be sure approx. 3 inches (76 mm) of wire extend completely through gland.

1.9. Remove the protective plastic insert(s) from the cable gland outlet(s). This must be done prior to final installation.

1.10. Remove End Cap from encoder.

1.11. Push wires through Cable Gland and the exterior End Cap hole.

1.12. Screw Cable Gland into the End Cap 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.*

- **WARNING: Do not tighten the Ex-proof cable gland while the encoder is attached to the shaft. Excessive torque may result in damage to the encoder ball bearings.**

1.13. Cut wires to proper lengths and insert into terminals.

1.14. Attach End Cap to encoder and tighten screws; M4 – 3,5 Nm +/- 0,1 Nm torque.

1.15. Connect encoder Circuit Ground (GND).

1.16. Connect remaining Output wires to PLC. Then apply power (**insure the Supply Voltage is correct!**).

1.17. If used, safety screws in the Removable End Cap shall have a minimum yield stress of 450 MPa.

1.18. Precautions must be taken to avoid dust from forming layers on the encoder.

1.19. It is strongly recommended that the original packaging be used for any additional shipping or transport.

Caution / Warning:

- **DO NOT connect encoder 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 encoder with hammer or any other heavy object.**
- **WARNING: Open circuit before removing cover. Keep cover tight while circuits are alive!**
- **WARNING: Potential electrostatic charging hazard - see instruction!**
  To minimize the risk from electrostatic discharge - clean only with a damp cloth.
- **If encoder 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.**

2. Marking:

CE **xxxx**[1] Ex

I M2 Ex db I Mb

Ambient temperature range: -40°C ≤Tamb.≤ +70°C [2]

IECEx ATEX

[1]) It is place for the specific number for the QAN issuer.
[2]) Upper ambient can be changed to any value between +20°C and +70°C to meet customer requirements". This is valid only for ITS certificates.

3. Ratings: 4.5-30 Vdc or 10-30 Vdc, max. 300 mA.

Permissible rotational shaft speed:
- With shaft seal: max. 3000 rpm
- Without shaft seal: 6000 rpm

4. Certification numbers:

EXME:
ITS10ATEX16925X
IECEx ITS 10.0009X
IECEx TSA 11.0008X
BVS 18 ATEX E 059 X

See certifications at www.scancon.dk

5. The encoder complies with the following standards:

IEC 60079-0: 2017 Ed.7 EN 60079-0 :2018	Explosive atmospheres - Part 0: Equipment – General requirements
IEC 60079-1 :2014-06 Ed. 7 EN 60079-1 :2014	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 :2013 Ed. 2 EN 60079-31 :2014	Explosive atmospheres - 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 ATEX/IECEx certification, does not need to be notified by Certification Body, as well as the new revision number following the changes.