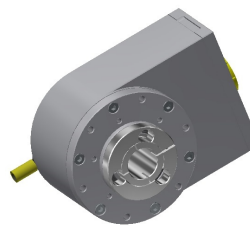




SCH86BEX



SCH86FEX



Installation guide

This Installation Guide is valid only for encoder types SCH86FEX, SCH86BEX, SCA86EX.



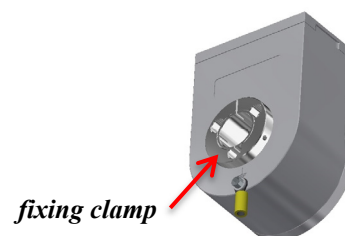
For your safety please read this guide carefully.

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 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. 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).
4. Align encoder spring coupling or torque arm mounting hole(s) with motor face plate hole(s). Insert screws into mounting holes and tighten.
5. Tighten fixing clamp M3 screw (maximum 1.5 Nm (1.12 lbft) torque).
6. Remove the protective plastic insert(s) from the cable gland outlet(s). This must be done prior to final installation.
7. Use **only** appropriately certified cable glands or blind plugs. Plastic screw plugs mounted on the encoder for environmental protection must be removed and replaced by appropriately certified cable glands or blind plugs prior use. Cable entry threads are M20 x 1,5, M25 x 1,5, 1/2 inch NPT or 3/4 inch NPT.
8. Use **only shielded cable**. Be aware of National Wiring Standards for ATEX environments. For ambient temperatures below -10° C and above +60° C use field wiring suitable for minimum and maximum ambient temperatures.



9. Connect encoder Circuit Ground (GND).
10. Connect remaining Output wires to PLC. Then apply power (**insure the Supply Voltage is correct!**).
11. If used, safety screws in the Removable End Cap shall have a minimum yield stress of 450 MPa.
12. Precautions must be taken to avoid dust from forming layers on the encoder.
13. It is strongly recommended that the original packaging be used for any additional shipping or transport.

Caution

- **DO NOT connect encoder when power is on.**
- **DO NOT connect output wires to supply voltage.**
- **DO NOT open when a flammable atmosphere may be present.**
- **DO NOT strike encoder with hammer or any other heavy object.**
- **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.**
- **To minimize the risk from electrostatic discharge - clean only with a damp cloth.**
- **Note: this equipment is suitable for use in class I, division 2, groups ABCD or class II, division 2, groups FG or non-hazardous locations only!**
- **For US and Canada: this equipment is suitable for use in class I, zone 1 & 2 or non-hazardous locations.**
- **WARNING: Open circuit before removing cover. Keep cover tight while circuits are alive**
- **WARNING: seal required within 50mm of enclosure.**
- **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.**

2. Marking:



File no. LR1192

II 2 G Ex db IIC T5 Gb
 II 2 D Ex tb IIIC T100°C Db IP6X
 Ambient temperatures are – 40°C to 70°C
 Class I, Div 2, Groups ABCD T5
 Class II, Div 2, Groups FG
 Ex db IIC T5 Gb
 Class I, Zone 1, AEx db IIC T5 Gb
 T_{Amb} = -40°C to +70°C



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

3. Certification numbers:

SCH86EX:

ITS09ATEX16841X

IECE_x ITS 13.0025X

QPS (Hazardous Location US/Canada) file no. LR1192

See certifications at www.scancon.dk

4. The encoder complies with the following standards:

IEC 60079-0 :2011 Ed. 6 EN 60079-0 :2012+A11: 2013	Explosive atmospheres - Part 0: Equipment – General requirements
IEC 60079-1 :2014 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	Electrical apparatus for use in the presence of combustible dust - Part 0: General Requirement
CSA C22.2 No. 25	Enclosures for Use in Class II Groups E, F and G Hazardous Locations
CSA C22.2 No. 213	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
UL 1203	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
ANSI/ISA 12.12.01	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
CSA/UL 60079-0	Explosive atmospheres - Part 0: Equipment - General requirements
CSA/UL 60079-1	Electrical Apparatus for Explosive Gas Atmospheres - Part 1: Flameproof Enclosures 'd'

NOTE: Adding other data (on other CB request) or changing layout to this Installation Manual does not conflict with the actual data in this document, QPS and ATEX/IECE_x certification. Adding the new data to this document cause change of revision number and the change not need to be notified by Certification Body.