Type SC24EX
Installation Guide

SCA24EX – Shaft

SCH24EX - Hollow Shaft

Installation guide

This Installation Guide is valid only for encoder types SCA24EX, SCH24EX.

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**.

fixing clamp

1. Insure that power is off.
2. Connect to earth prior to proceeding. Observe precautions for handling **ESD** (**E**lectro**S**tatic **D**ischarge) sensitive devices.
3. When installing the Shaft encoder, use M2 screws.
4. 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).
   - Align encoder spring coupling with motor face plate hole(s).

   Insert screws into mounting holes and tighten.
   - Tighten fixing clamp M1,4 screw (maximum 10 Ncm (0.07 lbf ft) torque).
5. Connect encoder Circuit Ground (GND).
6. Connect remaining Output wires to PLC. Then apply power (**insure the Supply Voltage is correct!**). An **NEC Class 2 power supply** (or certified to UL1310) or **Limited Power Source** (as defined in UL508) **<u>must</u>** be used for applications requiring North American Class 1 Div. 2 certification of the encoder.
7. Refer to **Connection Control Drawing no. 00230917.**
8. Precautions must be taken to avoid dust from forming layers on the encoder.
9. 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 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 1, groups EFG or non-hazardous locations only!**
- **For US and Canada: this equipment with removable cap is suitable for use in Class I, Zone 1 & 2 or non-hazardous locations.**

2. Marking:

ATEX & IECEx:

CE xxxx* Ex

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

North America:

c PS us CERTIFIED

File no. LR1192

Class I, Div 2, Groups ABCD T5
Class II, Div 1, Groups EFG
Ex db IIC T5 Gb
Class I, Zone 1, AEx db IIC T5 Gb
T_{Amb} = -40°C to +70°C

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

3. Certification numbers:

CML19ATEX1098X
IECEx QPS 19.0021X
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 :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 enclosures "t"
CSA C22.2 No. 142-1987	Process Control Equipment Industrial Products
CSA C22.2 No. 25-2017	Enclosures for Use in Class II, Division 1, Groups E, F and G Hazardous Locations
CSA C22.2 No. 213-2017	Non-incendive electrical equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations
CSA C22.2 60079-0:2019	Explosive atmospheres - Part 0: Equipment General requirements
CAN/CSA 60079-1: 2016	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d"
UL1203 5th Ed.	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
UL 121201 9th ed.	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
UL 508 17th Ed.	Industrial Control Equipment.
UL 60079-0 7th ed.	Explosive Atmospheres – Part 0: Equipment General Requirements
UL 60079-1 7th ed.	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d"

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.

Connection Control Drawing no. 00230917: