

## Type SCH108BEX – Profibus

- Ex-proof d Hollow Shaft Encoder –  $\phi$  108 mm ( $\phi$  4.25 in.)
- Through Hollow Shaft:  $\phi$  25 mm to  $\phi$  31,75 mm (1-1/4 in.)
- IP 66/67/68 (~ Nema 6) Environmental Protection
- Aluminium (Chromital TCP surface treatment)
- Material option Stainless Steel (AISI 316)
- ATEX, IECEx, Russian and North American Class I Div. 1 certifications

### Electrical Specifications

<b>Code:</b>	Absolute - Binary
<b>Interface:</b>	Profibus DP-V0 Supports the Profibus Profile for Absolute Encoders Vers. 1.1 class 1 and class 2
<b>Resolution:</b>	Max. 15 bit (32768) revolutions Max. 16 bit (65536) steps per rev.
<b>Device Addressing:</b>	Adjustable by rotary switches in the removable end cap and through the Change Station Address function over the Profibus interface
<b>Address Range</b>	1 to 126
<b>Baud Rate</b>	All standard Baud rates from 9,600 baud to 12 Mbaud
<b>Update Rate</b>	2000 updates per second
<b>Termination Resistors:</b>	Built inside removable end cap Switchable on/off
<b>Supply Voltage</b>	9 V min. to 30 V max.
<b>Current Consumption</b>	150mA @ Vsup = 10 V (typical) 70mA @ Vsup = 24 V (typical)
<b>Power consumption</b>	< 2.0 Watts
<b>Electrical Protection:</b>	Reverse polarity protected
<b>Noise Immunity:</b>	EN61000-6-2 : 2005 and EN61000-6-3 : 2007

### Mechanical Specifications

<b>Material:</b>	Housing: Aluminum or Stainless Steel Cap: Aluminum or Stainless Steel Hollow Shaft: Stainless Steel
<b>Weight:</b>	Aluminum: ~ 2400 gr (84.65oz) Stainless Steel: ~ 5500 gr (194 oz)
<b>Bearing Life:</b>	> 1,9 x 10 <sup>10</sup> revolutions at rated load
<b>Hollow Shaft Speed:</b>	3.000 rpm continuous (max.) IP 67
<b>Starting Torque:</b>	< 0,1 Nm (142 oz-in) at 25° C
<b>Mass Moment of Inertia:</b>	180g-cm <sup>2</sup> (25,5 * 10 <sup>-3</sup> oz-in <sup>2</sup> )
<b>Shaft Loads:</b>	Axial: 250 N (56 lbs) max. Radial: 500 N (112 lbs) max.
<b>Shock:</b>	100 G / 11 ms
<b>Vibration:</b>	10 G / 10-2000 Hz
<b>Bump:</b>	10 G / 16 ms (1000 x 3 axis)

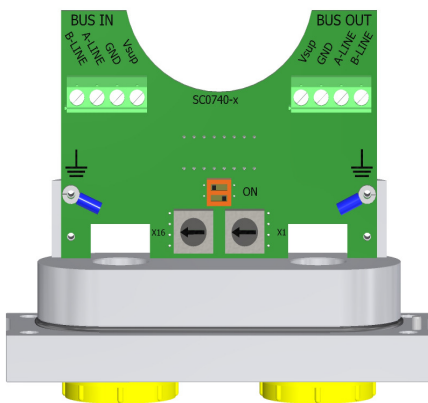
### Environmental Specifications

<b>Operating Temp.:</b>	-40° to +70° C
<b>Storage Temp.:</b>	-40° to +85° C
<b>Humidity:</b>	98 % RH without condensation
<b>Enclosure Rating:</b>	IP 66 / Nema 6 (approx.) IP 67 / Nema 6 (approx.) IP 68 / Nema (approx.) /1 meter/1 hour

## Certifications

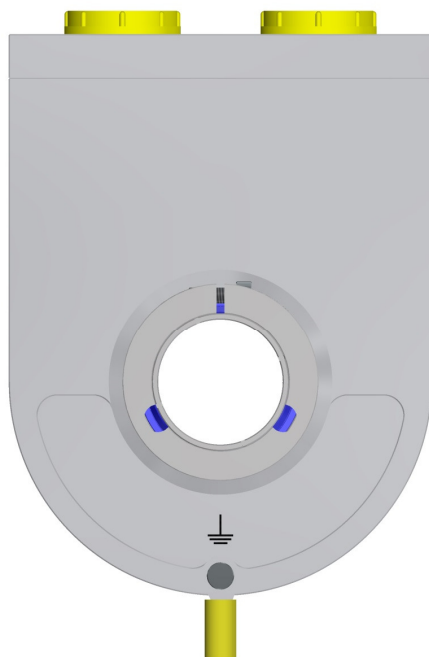
<b>ATEX:</b>	Certificate number: CML 15ATEX1142X II 2 G Ex db IIB+H2 T5 Gb, II 2 D Ex tb IIIC T100°C Db, -40°C ≤ Tamb. ≤ +70°C
<b>IECEX:</b>	Certificate number: IECEX QPS 15.0015X Ex db IIB+H2 T5 Gb, Ex tb IIIC T100°C Db, -40°C ≤ Tamb. ≤ +70°C
<b>North America:</b>	Certificate number: LR1192-3 Class I, Division 1, Groups CD T5, Class I, Division 2, Groups BCD T5, Class II, Division 1, Groups EFG, Class II, Division 2, Groups FG, Ex db IIB+H2 T5 Gb, Ex tb IIIC T100°C Db, Class I, Zone 1, Group IIB T5, Zone 21, Group IIIC, AEx db IIB+H2 T5 Gb, AEx tb IIIC T100°C Db, TAmb= -40 °C to +70 °C
<b>EAC Ex:</b>	НАННО «ЦСВЭ» No. EAЭС RU C-DK.AA87.B.00266/19 IEx db IIB+H2 T5 Gb X, Ex tb IIIC T100°C Db X, -40°C < T.amb < +70°C

## Output Terminations



Terminal Blocks		
Bus In	Bus Out	
Vsup	Vsup	Supply Voltage
GND	GND	Circuit Ground ( 0 volt )
A - Line	A - Line	Negative data for Profibus Interface
B - Line	B - Line	Positive data for Profibus Interface

Connect shield to blue cable shoe – see below

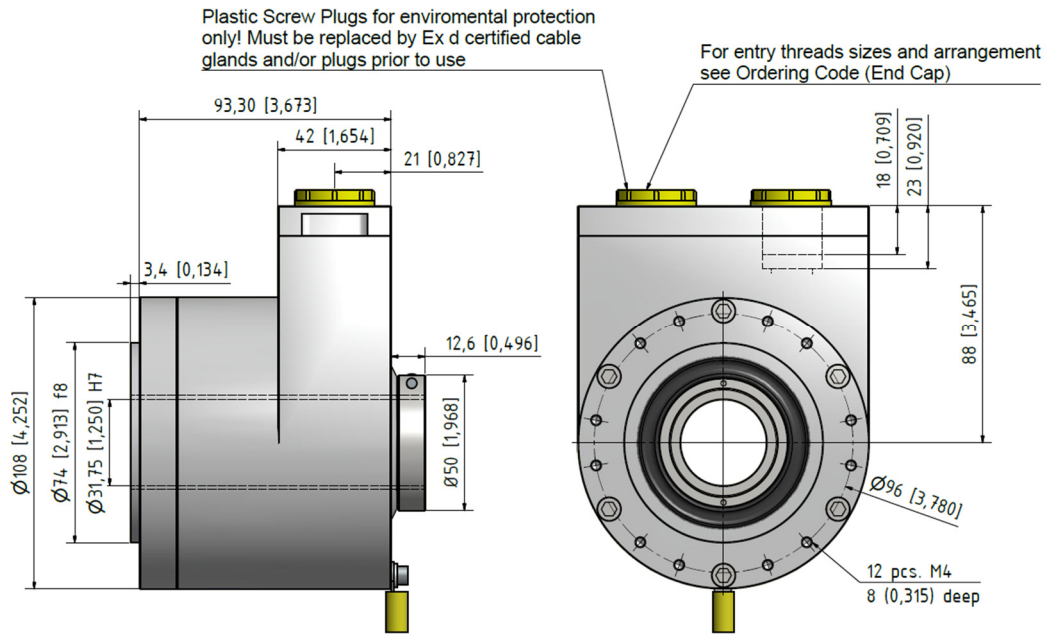


- **The internal earth connection** (blue cable shoes) is 16-14 AWG.  
*La connexion à la terre interne (Borne bleue) est en 16-14 AWG.*
- **The terminal block** is intended for installation a cable with wire size:
  - a) solid 0,14 mm<sup>2</sup> – 1,5 mm<sup>2</sup>.
  - b) Stranded 0,14 mm<sup>2</sup> - 1,5 mm<sup>2</sup>
  - c) stranded with ferrule 0,25 mm<sup>2</sup> - 1,5 mm<sup>2</sup>.

The rated wire size is AWG 26-16.
- **Le bornier** est conçu pour une installation d'un câble à la taille du fil:
  - a) rigide de 0,14 mm<sup>2</sup> - 1,5 mm<sup>2</sup>
  - b) souple 0,14 mm<sup>2</sup> - 1,5 mm<sup>2</sup>
  - c) souple avec embout 0,25 mm<sup>2</sup> - 1,5 mm<sup>2</sup>.

*La taille de fil nominale est AWG 26-16.*
- **The external earth connection** (yellow cable shoe) is 12-10 AWG.  
*La connexion de terre externe (Borne jaune) est en 12-10 AWG.*

## Mechanical Dimensions



Standard End Cap

Type EC01, Type EC02, Type EC03, Type EC05

mm (inches)

## Ordering Code

Example: SCH108BEX - 1416 - SA - DP - 04 - 00 - 67 - EC03 - A - 00

SCH108BEX - [ ] - [ ] - [ ] - DP - [ ] - 00 - [ ] - [ ] - A - [ ]

