



Type SCH68SUB

- 68 mm (2.68") Servo mount
- Hollow bore Ø 10 mm to Ø 1 inch
- Shaft Loads to 100 N (22.5 lbs)
- IP 68 (permanent 6000m)

Electrical Specifications

Code:	Incremental (magnetic)
Resolution:	25 to 4096 ppr (pulses per revolution)
Supply Voltage:	4,5 Vdc to 30 Vdc max. (35 mA max. - no load)
Output Voltage:	Low: 500 mV max. at 10 mA High: ($V_{in} - 0,6 V$) at -10 mA ($V_{in} - 1,3 V$) at -25 mA
Output Current:	30 mA max. load per output channel
Max. Output Frequency:	200 kHz
Output Format:	Two channel (A, B) quadrature with Index (Z) and optional complementary (A-, B-, Z-) outputs
Phase Sense:	A leads B clockwise (CW) from the mounting end of the encoder
Index:	Gated with Channels A and B high
Accuracy:	0,35 °
Outputs:	ASIC Standard or Differential
Electrical Protection:	Output short circuit protected Reverse polarity protected Transient Suppression Module
Noise Immunity:	EN61000-6-2: 2005 (industrial environments) Electromagnetic compatibility (EMC) EN 61000-6-3: 2007 (residential, commercial, and light-industrial environments) for Electromagnetic compatibility (EMC)

Mechanical Specifications

Material:	Housing: AISI 316L Cap: AISI 316L Hollow Shaft: AISI 316L
Weight:	Encoder: Approx. 2200 g (77.601 oz)
Bearing Life:	$> 1.9 \times 10^{10}$ revolutions at rated load
Shaft Speed:	2000 rpm max.
Starting Torque:	< 0.05 Nm (7.08 oz-in) at 25° C IP 68
Mass Moment of Inertia:	1400 gcm ² (19,82 x 10 ⁻⁸ oz-in-sec ²)
Shaft Loads:	Axial 100 N (22.50 lbs) max. Radial 100 N (22.50 lbs) max.

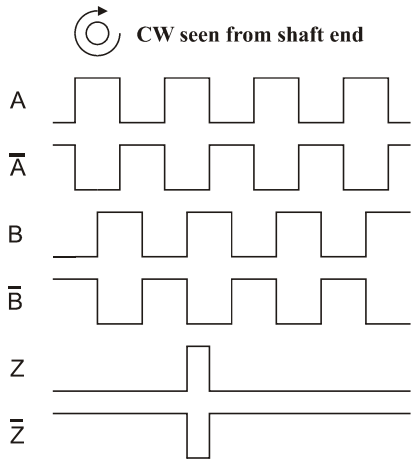
Environmental Specifications

Operating Temperature:	-10° to +70° C
Storage Temperature:	-40° to +85° C
Shock:	100g @ 11 ms
Vibration:	10g @ 10-2000 Hz
Bump:	10g @ 16 ms (1000 x 3 axis)
Enclosure Rating:	IP 68 / Permanent submersion to 6000 m

Connection Options

Connectors:	SUBCON 4pin male MCBH4MSS SUBCON 8pin male MCBH8MSS
--------------------	--

Output waveform

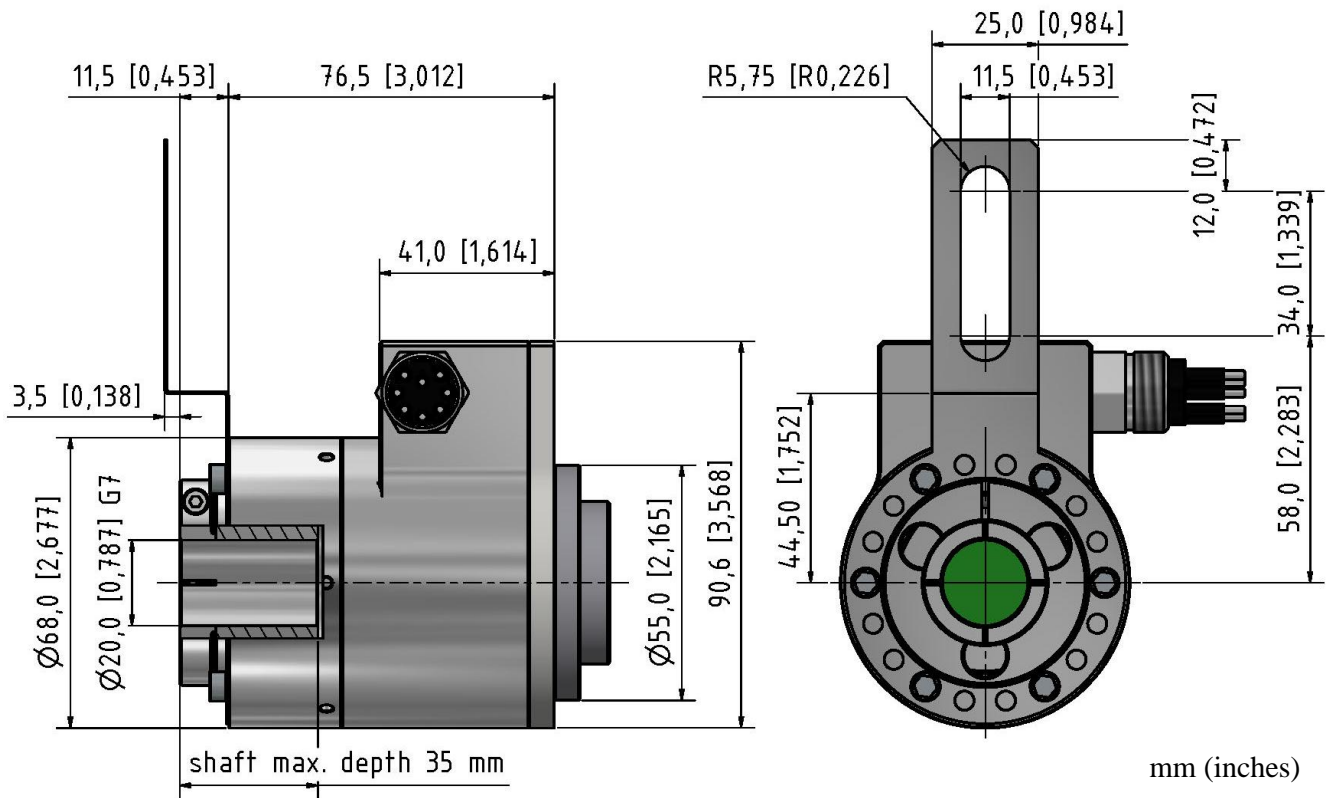


Channel tolerance $180\text{ e}^\circ \pm 36\text{ e}^\circ$
 Phase difference tolerance $90\text{ e}^\circ \pm 18\text{ e}^\circ$
 Z channel tolerance $90\text{ e}^\circ \pm 18\text{ e}^\circ$

Table 1. Disk Resolutions (pulses per revolution)

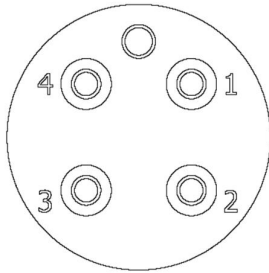
25	50	100	200	256
300	400	500	512	1000
1024	2048	4096		

Mechanical Dimensions

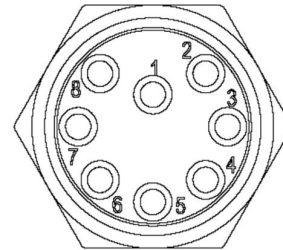


Output Terminations – Connectors:

SUBCON 4 Pin	
Standard Output	
Pin	Channel
1	Circuit ground
2	B
3	Vsup
4	A



SUBCON 8 Pin	
Differential Output	
Pin	Channel
1	Z-
2	Z
3	B-
4	Vcc
5	B
6	A
7	A-
8	GND



Ordering Code

Example: SCH68SUB -01M - 1024 - D - 20 x 35 - 68 - 00 - S - C8 - S1

SCH68SUB-01M - - - - - - - - -

1 2 3 4 5 6 7 8

1. Resolutions

See Table 1.

3. Hollow Shaft (diameter)

20 mm**20 x 35**

*Other hollow shaft diameters
may be requested*

5. Cable Length

No Cable **00**

7. Connector

SUBCONN 4**C4**
 SUBCONN 8**C8**

*Female Mating Connector
is not included*

2. Output

Standard 4,5V to 30V **N**
 Differential 4,5V to 30V**D**

*Build-in Transient Suppression
Module (TSM). See Scancon
Website for information*

4. IP Rating

IP 68 **68**

6. Cable Takeout

Side (Standard)**S**

8. Spring Coupling

1 hole p/n 80131017 ... **S1**
 2 holes p/n 80131067 ... **S2**
 1 hole p/n 80132464 ... **S3**
 2 holes p/n 80131062 ... **S4**

See Accessories data sheet for Anti-rotation Springs/Torque Arm options