



**Scancon SCH68F** **CE**

**Introduction**

Heavy Duty. Hollow shaft encoder. Blind End.  
Front Mounting.  
Strong compact electronics.  
Based on 2 precision ball bearings, for harsh industrial environments.

**MECHANICAL SPECIFICATIONS**

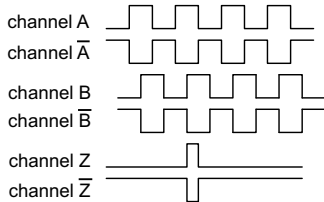
Weight	400 g (excludes cable)
Material	Housing - Aluminum Shaft - CuZn39Pb3 (Brass) Bearings - Gcr15
H.- Shaft Loads	axial maximum = 100 N radial maximum = 100 N
Max. rev.	IP65~3000 rpm / IP67~1500 rpm
IP-rating	Standard IP65. Option IP66 or IP67
Starting Torque	< 0,05 Nm IP 65 / < 0,1 Nm IP 67
Mass Moment of Inertia	50 gcm <sup>2</sup>
Shock	maximum 100G / 11 ms
Bump	10G - 16 ms (1000 X 3 axis)
Vibration	(10-2000Hz) / 10G

**ELECTRICAL SPECIFICATIONS**

Output Waveform	Incremental (A, B, Z and inverted)
Output Signals	Normal (Standard), Inverted, Differential (RS-422A compatible @ 5V)
Current No Load	Max.45 mA
Maximum Load per Output	30 mA (Short circuit protected)*
Supply Voltage	Min. 4.5V to Max. 30V* Reverse polarity protection
V <sub>out low</sub>	maximum 500 mV @ I = 10 mA
V <sub>out high</sub>	minimum (V <sub>in</sub> -0.6) @ I = -10 mA minimum (V <sub>in</sub> -1.3) @ I = -25 mA
Operating Temp.	- 40°C to +85°C
Storage Temp.	- 40°C to +85°C

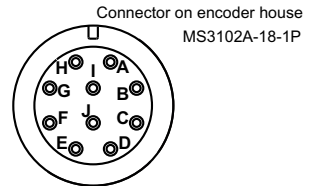
## OUTPUT WAVEFORM

⌚ CW Seen from open hollow shaft end



**Options:** TTL or HTL compatible. Open Collector  
 NPN or PNP  
 Gated Z-puls or none-gated Z-puls.  
 View more Output options in section 16 -  
 page 1 to 2

## CONNECTOR CONNECTIONS



Pin Assignment

Pin	Function
A	A
B	B
C	Z
D	VDC(5-30 VDC Standard)
E	Not connected
F	Circuit Ground
G	Case Ground
H	A Compliment ( $\bar{A}$ -inverted)
I	B Compliment ( $\bar{B}$ -inverted)
J	Z Compliment ( $\bar{Z}$ -inverted)

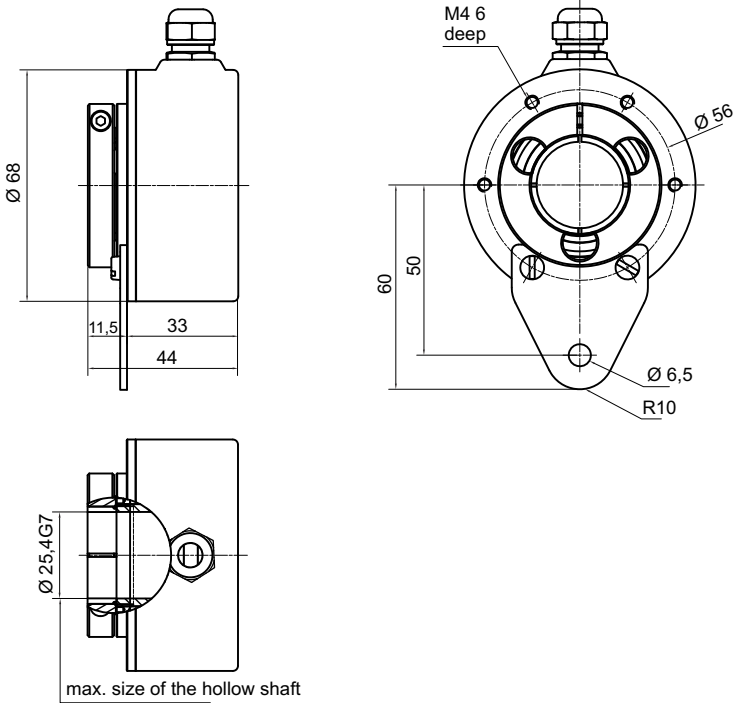
## CABLE CONNECTIONS

Color code	Standard
Pink	Ch. A
Grey*	Ch. A Gnd
Green	Ch. B
Yellow*	Ch. B Gnd
White	Ch. Z
Brown*	Ch. Z Gnd
Red	Vcc
Blue*	Gnd

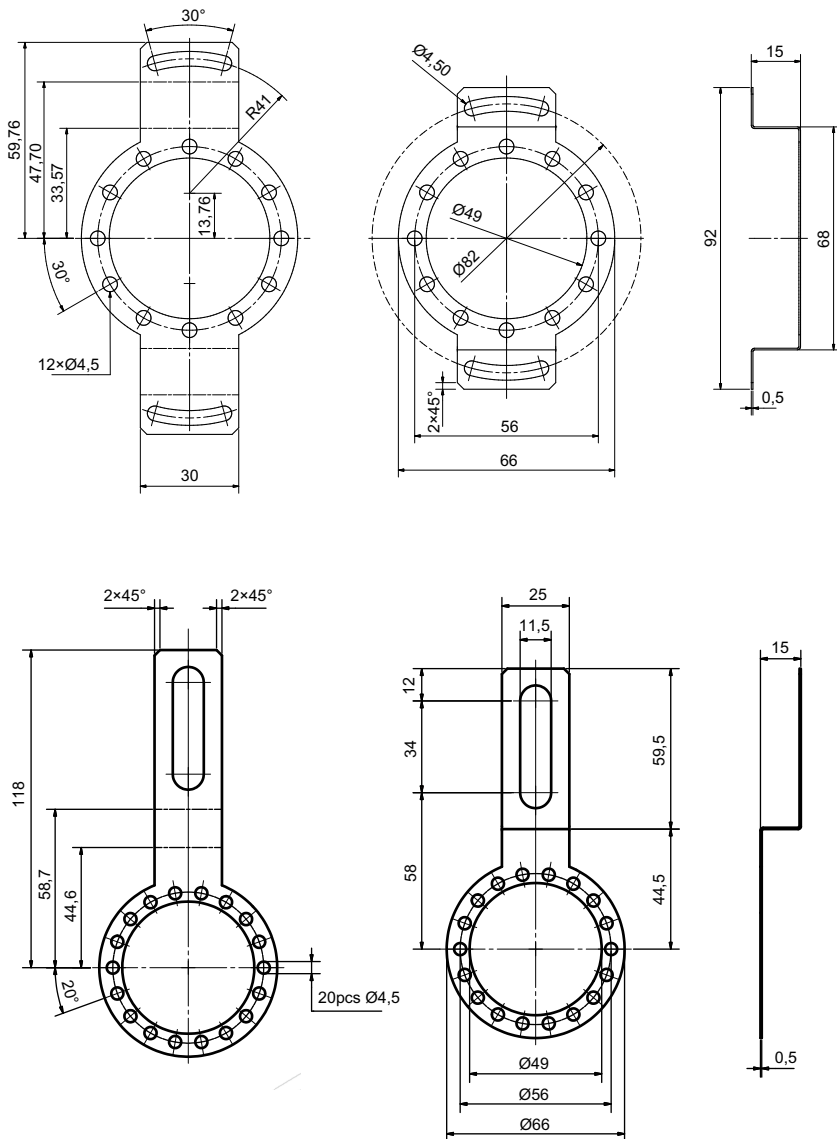
Color code	Differential
Pink	Ch. A
Grey	Ch. A inv
Green	Ch. B
Yellow	Ch. B inv
White	Ch. Z
Brown	Ch. Z inv
Red	Vcc
Blue	Gnd

\*Blue, grey, yellow and brown are internal connected

**MECHANICAL DIMENSIONS**



## MOUNTING SPRING



**ORDERING CODES**

**Ordering Codes System  
Incremental Heavy Duty Encoder — SCH68F**

**Ordering Codes: SCH68F XXXX — X — XX — XX — XX — X**

Pulses pr. rev:	No. of pulses XXXX				
	400 2048 3072 4096 1024 2500 3600				
	Other pulses are under construction				
Output signal:	Normal (TP-Standard) 3 channel = A, B, Z	N			
	TP-Differential, 6 channel A, B, Z and A-inv, B-inv, Z-inv	D			
	Line driver OL 7272 for extra long cable, up to 100 meters (Differential)	M			
	Line driver chip 26C31 (V out low < 0,4 V) (RS-422A compatible @ 5V) Only 5 Volt (Differential)	L			
Hollow Through Shaft dimensions: Tolerance G7. Other dimensions are under construction	1 inch (Ø25,4 mm) Ø 20 Ø 25		1X 20 25		
IP-rating:	IP 65 IP 66 IP 67			65 66 67	
Cable Length:	Standard 1 meter No. of meters				01 XX
Cable take out:	Side (Radial)				S
Anti rotation Spring coupling:	View Section xx page x to x				
Connector: (Coninvers on standard black cover)	Coninvers Connector View Section 14 page 3 to 5				
Connector: (MIL-connector)	MIL- connector View CONNECTOR CONNECTIONS				
More accessories Anti rotation spring and adaptors:	View section 12 page 1 to 8				

## WARRANTY

Scancon A/S warrants against manufacturing defects for a period of 12 months from the date of manufacture. Product dimensions, weights and all product illustrations are approximate and may be modified without prior notice.

This warranty does not cover problems or consequences due to common usage (wear and tear) for which the product was designed. Nor does it cover product failures caused by improper installation or use, overloading, incorrect maintenance, or operation outside the product's specifications.

Detailed warranty information can be found in Scancon's Terms & Conditions