
2Q
CE

Introduction

Standard shaft encoder
 Std. IP 65
 Thermal shut down at 155°C
 Strong compact electronics
 Based on 2 precision ball bearings,
 for harsh industrial environments

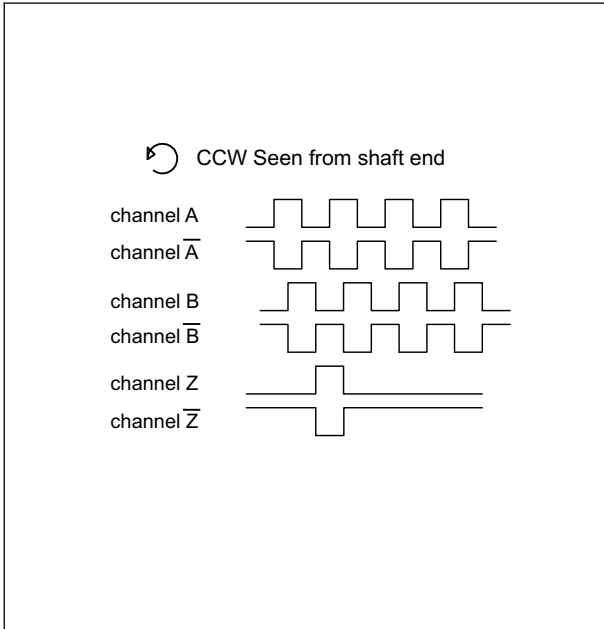
MECHANICAL SPECIFICATIONS

Weight	About 350g + cable 60g/meter
Material	Housing - Aluminum Shaft - Stainless Steel Bearings - Lifetime lubricated ball bearings
Shaft Loads	axial maximum = 50 N radial maximum = 100 N
Max. rev.	6,000 rev./min.
IP-rating	Standard IP 65
Start Torque	< 0,01 Nm at 25° C
Mass Moment of Inertia	4 gcm ²
Shock	maximum 100G / 11 ms
Bump	10G - 16 ms (1000 × 3 axis)
Vibration	(10-2000Hz)/ 10G

ELECTRICAL SPECIFICATIONS

Output Waveform	Incremental (A, B)
Output Signals	Normal (Standard), Inverted, Differential (RS-422A compatible @ 5V)
Current No Load	Max.45 mA
Max. load pr. output	30 mA - (Short circuit protected)*
Supply-Voltage(Vin)	Min 4,5V to Max. 30V* , Reverse polarity protection
V _{out} low	maximum 500 mV @ I = 10 mA
Phase difference Duty cycle	180° ± 36° 90° ± 18°
Operating Temp.	- 40°C to +85°C
Storage Temp.	- 40°C to +85°C

OUTPUT WAVEFORM



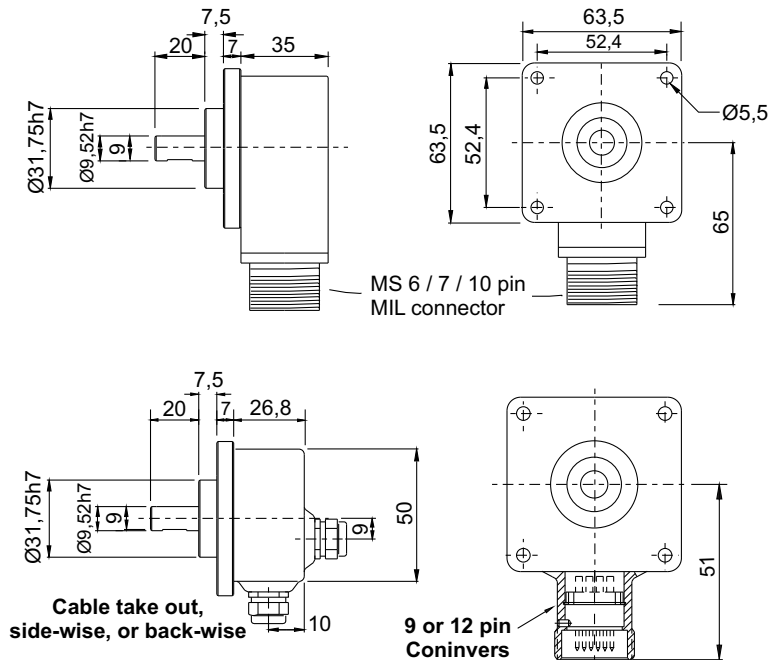
CONNECTIONS for Cable (colours)

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

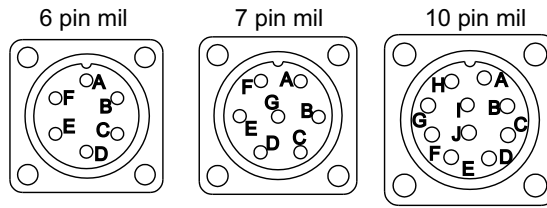
*Blue, grey, yellow and brown are internal connected

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

MECHANICAL DIMENSIONS

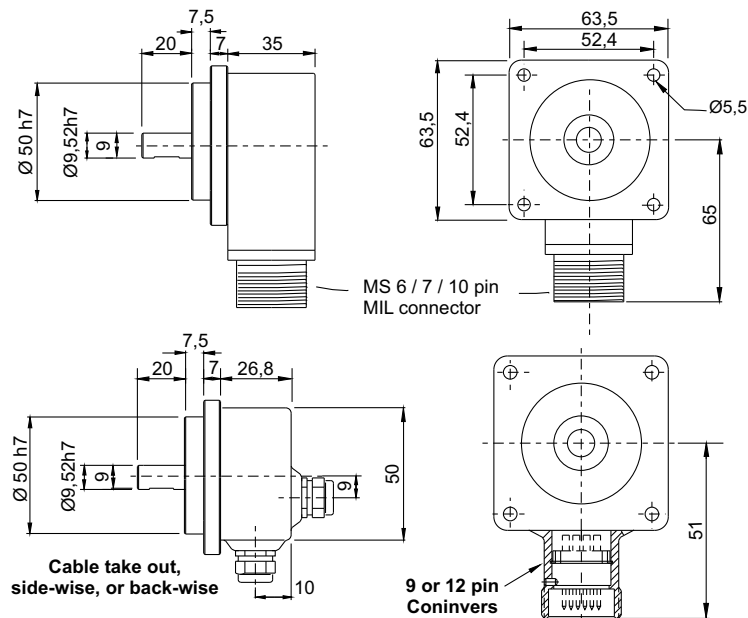


CONNECTIONS MIL - connector



	6 pin mil	7 pin mil	10 pin mil
+Vcc	B	D	D
-Gnd	A	F	F
A	E	A	A
B	D	B	B
Z	C	C	C
A inv.	-	-	H
B inv.	-	-	I
Z inv.	-	-	J

OPTION: 2Q-ELT FACE



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

ORDERING CODES

Ordering Codes System Incremental Shaft Encoder — 2Q

Ordering Codes: 2Q XXXXX — XX — XXXXX — XX — XX — X — XX — XX

Pulses pr. rev:	No. of pulses	XXXXX							
	1 30 100 455 1250 5000								
	2 32 125 500 1500 8192								
	5 36 150 512 2000 9000								
	6 40 180 600 2048 10000								
	8 50 200 635 2400 12500								
	10 60 250 720 2500								
	15 64 256 800 3000								
	16 75 300 1000 3600								
	20 80 360 1024 4000								
	25 90 400 1131 4096								
Output signal:	Standard (normal)	N							
	Inverted	I							
	Differential	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							
	Line Driver RS-422, Chip 26C31 Volt out 5 volt Volt in 5 to 30 (Differential)	5L							
Shaft dimensions:	1/4" (Ø6,35) × 20 mm		1/4 × 20						
	3/8" (Ø9,525) × 20 mm		3/8 × 20						
	Ø8 × 20 mm		08 × 20						
	Ø10 × 20 mm		10 × 20						
IP-rating:	IP 65			65					
Cable Length:	Standard 1 meter				01				
	No. of meters				XX				
Cable take out:	Back (Axial)						B		
	Side (Radial)						S		
MIL-Connector	6 Pin							06	
ONLY side-wise:	7 Pin							07	
	10 Pin							10	
Coninvers Connector	9 Pin								09
ONLY side-wise:	12 Pin								12
Connector:	Coninvers Connector or MIL-connector								
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