



**2MC-EX-H**



**Introduction**

Hollow Shaft Encoder , Micro  
 High IP-Rating IP 64 Standard (option: IP 67)  
 Power supply 5V ± 10%  
 Strong compact electronics  
 Based on 2 precision ballbearings for industrial environments

**MECHANICAL SPECIFICATIONS**

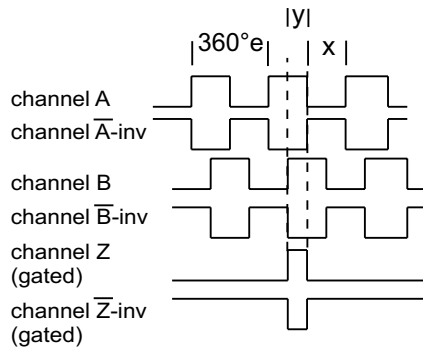
Weight, excl. Cable	About 80g
Materials	Housing - Brass / Aluminum Shaft - Brass Bearings - Lifetime lubricated ball-bearings
H.-Shaft dimensions	Ø2, Ø3, 1/8" (Ø3,175)
H.-Shaft Loads	axial maximum = 10 N radial maximum = 10 N
Max speed	12,000 rev./min.
IP-rating	IP 64, IP 67
Start Torque	< 0,001 Nm at 25° C
Mass Moment of Inertia	0,2 gcm <sup>2</sup>
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	Differential (RS-422A compatible)
Current No Load	35 mA
Max. Load pr. Output	20 mA
Supply Voltage	5V ± 10%
V <sub>out</sub> low	maximum 500 mV @ I = 10 mA
V <sub>out</sub> high	minimum (Vin -0.6) @ I = -10 mA minimum (Vin -1.3) @ I = -25 mA
Operating Temp.	- 20°C to +70°C (at 5000ppr -20°C to + 50°C only)
Storage Temp.	- 20°C to +85°C

## OUTPUT WAVEFORM

Rotation: Clockwise (cw) from shaftside



$X = 180^\circ e \pm 36^\circ e$  and  $Y = 90^\circ e \pm 18^\circ e$   
 Z puls: Gated with A and B (standard)

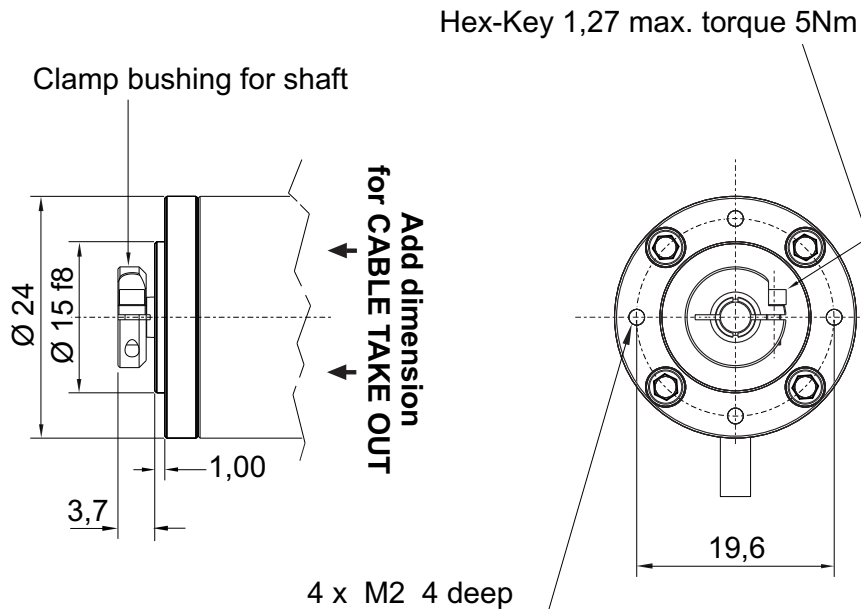
**Options:** TTL or HTL compatible. Open Collector NPN or PNP  
 Gated Z-puls or none-gated Z-puls.  
 View more Output options 51 to 52

## CONNECTIONS

### 8 leads cable

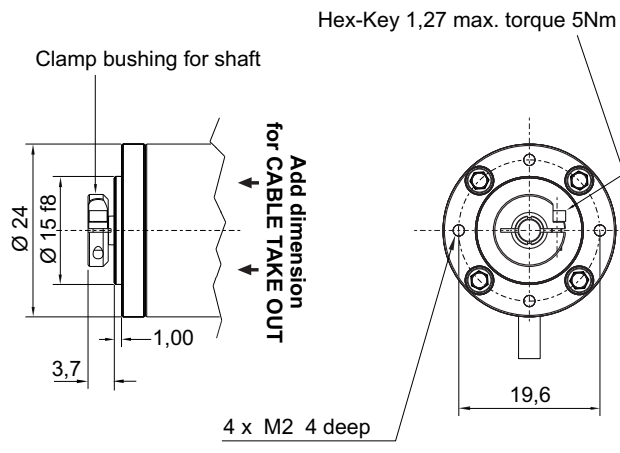
Color code	Differential
Pink	Ch A
Grey	Ch A inv
Green	Ch B
Yellow	Ch B inv
White	Ch Z
Brown	Ch Z inv
Red	Vcc
Blue	0-Volt

## MECHANICAL DIMENSIONS



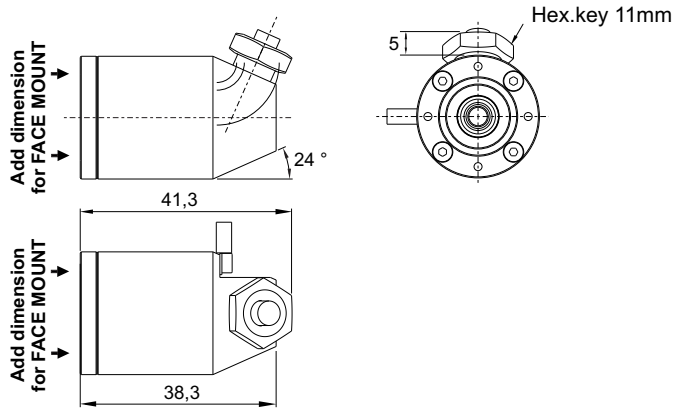
**FACE MOUNT**

**Option**  
Face mount: A  
Hollow Shaft:  
Ø2 x 15 mm deep  
Ø3 x 15 mm deep  
1/8" x 15 mm deep

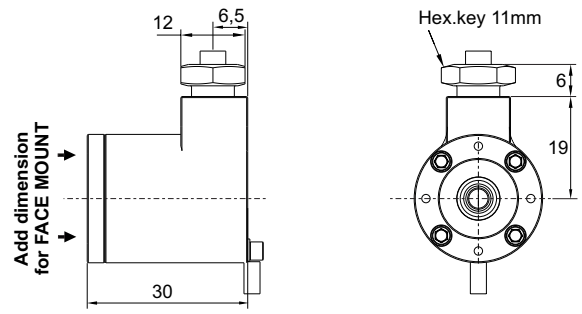


**CABLE TAKE OUT**

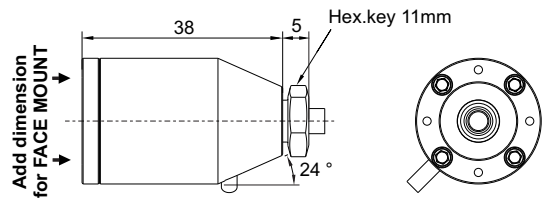
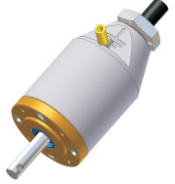
**Cable Take out 24°: V**



**Cable Take out Side: S**



**Cable Take out Back: B**



## ORDERING CODES

### Ordering Codes System Ex-Proof Incremental Shaft Encoder — 2MC-EX-H

Ordering Codes: 2MC-EX-H    XXXX    —    XXX    —    XXXXX    —    XX    —    XX    —    X    —    X

Pulses pr. rev:	No. of pulses	XXXX						
	100 300 500 2000 3600 125 360 1024 2500							
	Special: 1520 PPR / 19 Z-pulses 5000ppr -20°C to + 50°C only							
Output signal:	Standard Differential Inverted Normal OC NPN		00N 00D 00I NON					
Shaft dimensions:	Ø2 × 15 mm Ø3 × 15 mm Ø 1/8" (Ø 3,175) × 15 mm		02 03 1/8					
IP-rating:	IP 64 Standard IP 67				64 67			
Cable Length:	Standard 1 meter No. of meters					01 XX		
Cable take out:	Side Back 24° deg.						S B V	
Face Mount:	Face A							A

## 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