

Type SCA24EX



- Ex d - Proof Shaft Encoder - \varnothing 24 mm
- Shaft: \varnothing 4 mm to \varnothing 6 mm
- Resolution up to 3600 ppr
- IP 67 (IP 64, 65 & 66 option)
- “Seawater-proof” - 22 micron Anodization
- ATEX, IECEx and North American Class I and Class II certified
- Formerly named 2MCEX-A



Electrical Specifications

Code:	Incremental
Resolution:	1 to 3,600 ppr (pulses per revolution)
Supply Voltage:	5 Vdc min. to 24 Vdc max. (35 mA max. - no load) **
Output Voltage:	Low: 500 mV max. at 10 mA High: (Vin - 0.6) at -10 mA (Vin - 1.3) at -20 mA
Output Current:	20 mA max. load per output channel **
Frequency Response:	200 kHz max. **
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:	+/- 0.8 arc-min.
Output:	ASIC Push-pull and Differential
Electrical Protection:	Reverse polarity and output short circuit protected
Noise Immunity:	Tested to EN61000-6-2 : 2005 (industrial environments) Electromagnetic compatibility (EMC) and EN 61000-6-3 : 2007 (residential, commercial, and light-industrial environments) for Electromagnetic compatibility (EMC)

** = It is recommended user not to combine max. values for all 3 parameter

Mechanical Specifications

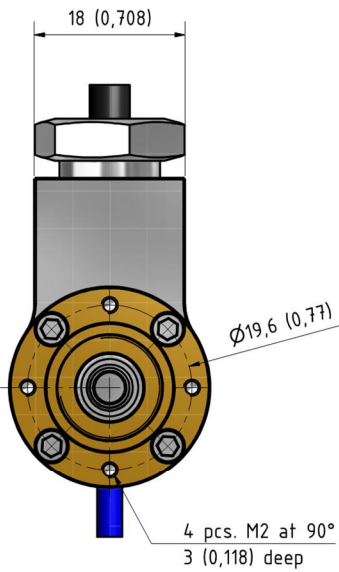
Material:	Housing: Aluminum Cap: Aluminum Shaft: Aisi 303
Weight:	Encoder: Approx. 80 gr (44.1 oz) Cable: 50 gr / meter (1.76 oz / meter)
Bearing Life:	> 1.9 x 10 ¹⁰ revolutions at rated load
Shaft Speed:	3,000 rpm continuous (max.) IP 67
Starting Torque:	< 0.001 Nm (0.14 oz-in) at 25° C
Mass Moment of Inertia:	0.2 gcm ² (2.8 x 10 ⁻⁶ oz-in-sec ²)
Shaft Loads:	Axial 10 N (2.25 lbs) max. Radial 10 N (2.25 lbs) max.

Environmental Specifications

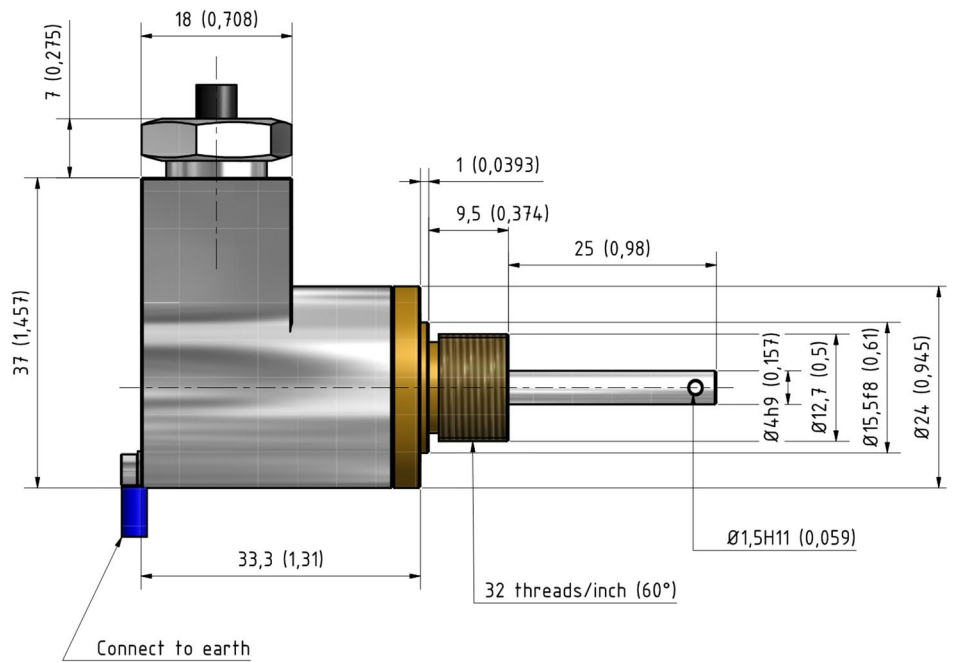
Operating Temp.:	-40° to +70° C
Storage Temp.:	-40° to +85° C
Shock:	100 G @ 11 ms
Vibration:	10 G @ 10-2000 Hz
Bump:	10 G @ 16 ms (1000 x 3 axis)
Humidity:	98 % RH without condensation
Enclosure Rating:	IP 64 / Nema 5 (approx.) option IP 65 / Nema 4 (approx.) option IP 66 / Nema 6 (approx.) option IP 67 / Nema 6 (approx.)

Connection Options

Cable:	8 leads (0.05 mm ² , 30 AWG) twisted pairs; shielded
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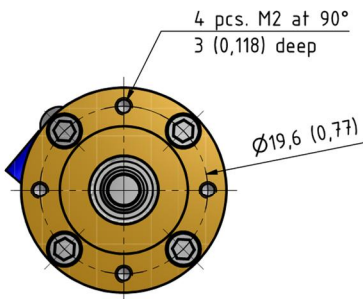


Flange G Option

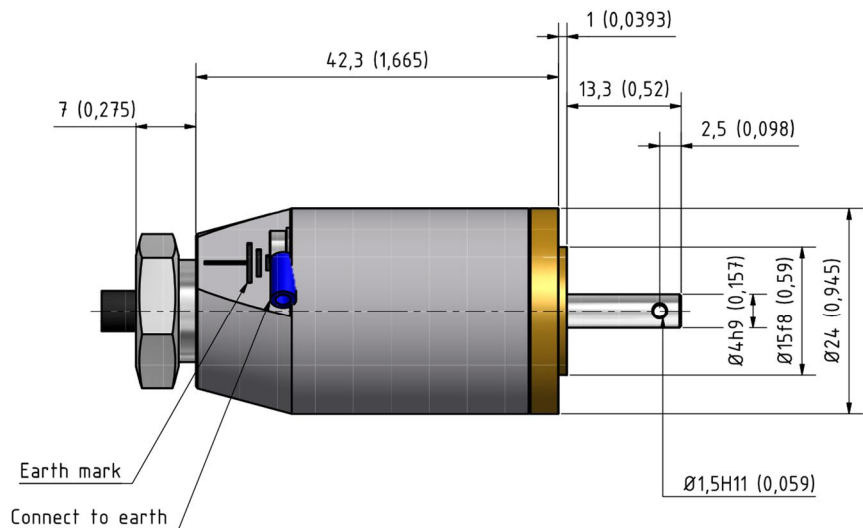


mm (inches)

Side Cable Takeout - S

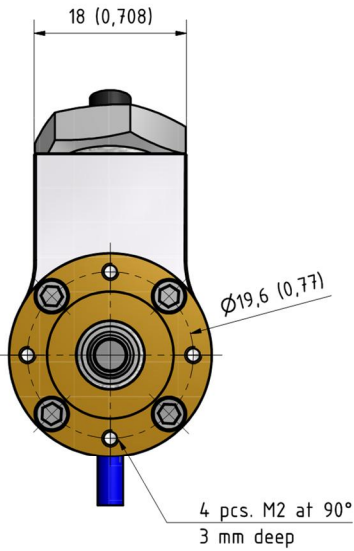


Flange A Option

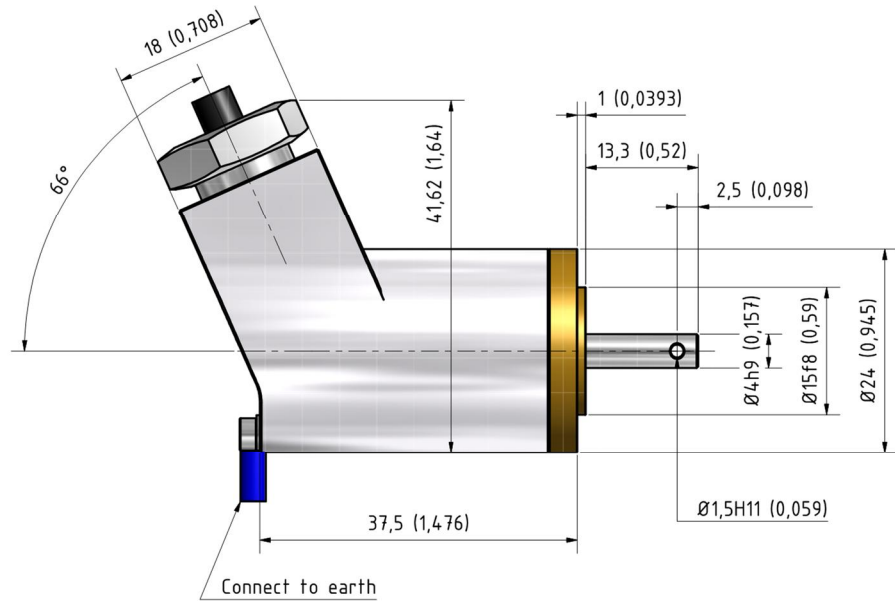


mm (inches)

Back Cable Takeout - B



Flange A Option



mm (inches)

Angled Cable Takeout -V

Output Terminations

Standard Cable	
	Differential Output
Channel	Wire Color
A	Pink
A -	Gray
B	Green
B -	Yellow
Z	White
Z -	Brown
Vsup	Red
GND	Blue

GND = Circuit Ground

