

Orbis™

true absolute rotary encoder

Orbis™ is a true absolute rotary encoder suitable for applications where a typical OnAxis encoder cannot be mounted at the end of the rotating shaft due to space constraints or if hollow shaft is required.



HIGH SPEED



WIDE
INSTALLATION
TOLERANCES

14

14 BITS
RESOLUTION



Why choose Orbis™?

FEATURES:

- ✓ True absolute
- ✓ Multiturn counter option
- ✓ Resolution 14 bits
- ✓ Accuracy to $\pm 0.25^\circ$
- ✓ High speed

BENEFITS:

- ✓ Wide installation tolerances
- ✓ Through-hole design
- ✓ Integrated status LED
- ✓ SSI, SPI, PWM, BiSS and async serial
- ✓ Self-calibration after assembly



ROBOTIC ARM
JOINTS



PAN/TILT
POSITIONING



PRECISE
GEAR BOX



MEDICAL



MOTOR CONTROL

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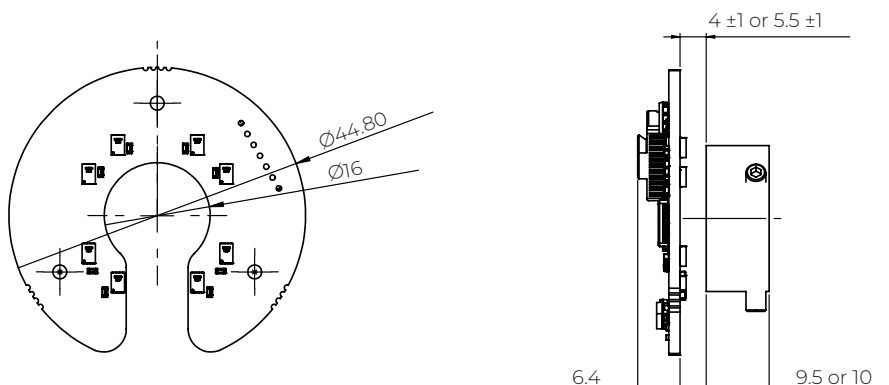
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Orbis™ technical specifications

SYSTEM DATA		
Reading type	Axial reading	
Resolution	14 bit	
Maximum speed	10,000 RPM	
Accuracy	±0.25° (optimal installation) and up to ±0.1° after self-calibration	
ELECTRICAL DATA		
Supply voltage	4.5 V to 5.5 V (at the connector)	
Current consumption	65 mA typical (no output load)	
MECHANICAL DATA		
Available magnet sizes (inner diameter)	12 mm, 16 mm	
Available magnet actuator (inner diameter)	6 mm, 8 mm, 10 mm, 12 mm, 15 mm	
Readhead outer diameter	45 mm	
Readhead inner diameter	16 mm	
ENVIRONMENTAL DATA		
Temperature (Not valid for cables with DSUB-9 connector)	Operating	0 °C to +85 °C
	Storage	−40 °C to +105 °C

Orbis™ dimensions

Encoder readhead

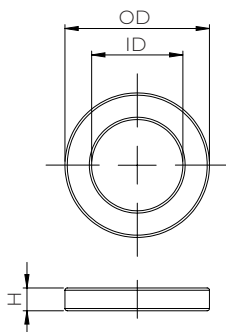


Permanent magnets

Available magnets:

ID	OD	H
12	19	3
16	24	3.5

ID and OD tolerances are ±0.05.

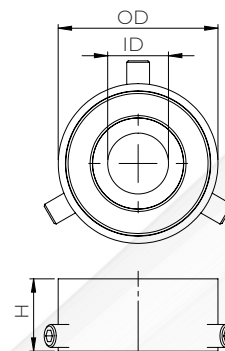


Magnetic actuators

Available actuators:

ID	OD	H
6	21	9.5
8	21	9.5
10	22	9.5
12	27	10
14	27	10
15	27	10

ID tolerances are H7.



All dimensions in mm.

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