

Orbis™

Through-hole Analogue and Incremental Rotary Encoder

Orbis™ family is extended by Analogue, Incremental and Commutation through-hole encoders. Orbis Analogue provides sinusoidal outputs with a single sine/cosine period per revolution. Orbis (Ux output) is designed for use in motor applications requiring both A, B, Z incremental and U, V, W commutation signals. Installation is simplified by one-time programming of the zero position, which eliminates the need for careful encoder adjustment.



VARIOUS SIZES



WIDE INSTALLATION TOLERANCES



NON-CONTACT

SAMPLES AVAILABLE



Why choose Orbis™?

FEATURES:

- ✓ 5 V power supply
- ✓ Analogue output with one sin/cos per revolution
- ✓ Incremental with 4096 cpr
- ✓ UVW up to 16 poles
- ✓ Available ID: 16, 22, 30 mm

BENEFITS:

- ✓ Wide installation tolerances
- ✓ Through-hole design
- ✓ Zeroing function
- ✓ Non-contact, frictionless design



MOTOR CONTROL



GIMBALS



PRECISE GEAR BOX



AGRICULTURE



AGV

RLS d. o. o.
Poslovna cona Žeje pri Komendi
Pod vrbami 2
SI-1218 Komenda
Slovenia

T: +386 1 5272100
E: mail@rls.si

www.rls.si

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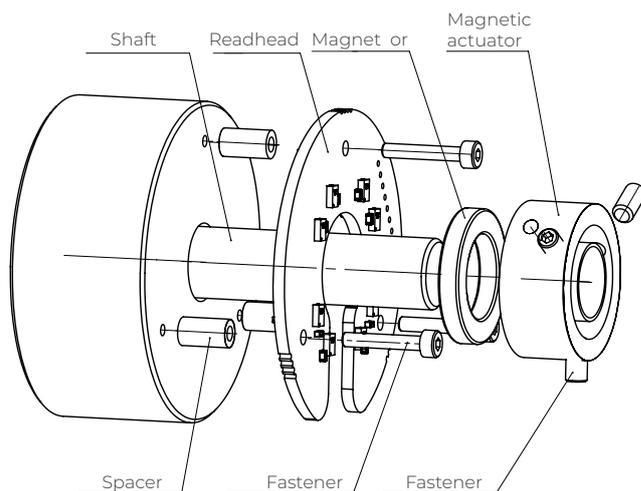
Orbis™ technical specifications

SYSTEM DATA	
Analogue outputs	One sin/cos per revolution, single-ended and differential
Commutation outputs (for Ux) and Incremental outputs	U, V, W A+, A-, B+, B-, Z+, Z- (RS422)
Accuracy	±0.5°
Resolution	12 bit
ELECTRICAL DATA	
Supply voltage	5V ± 10%
Current consumption	30 mA typical
MECHANICAL DATA	
Magnet material	NeFeB with Ni-Cu-Ni protective layer
Actuator material	Anodised aluminium
ENVIRONMENTAL DATA	
Operating and storage temperature	-40 °C to +105 °C (with connector) -40 to +125 (without connector)
Humidity	0 % to 70 % non-condensing
External magnetic field	Max. ±3 mT (DC or AC) on top side of readhead

READHEAD	READHEAD ID / OD	RIDE HEIGHT	COMPATIBLE MAGNET	MAGNET ID / OD / H
BR10	15.8 / 45 mm	4 ± 1 mm	BM120	12 / 19 / 3 mm
BR20	22.8 / 50.3 mm	5.5 ± 1 mm	BM220	22 / 32 / 4 mm
BR30	30.8 / 60.2 mm	4 ± 1 mm	BM300	30 / 44 / 4 mm

* Magnetic actuator is magnet inside metal housing.

Orbis™ installation



See document BRD01 for technical drawings with dimensions and magnet or actuator selection guide.

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