

RS310

Rotary encoder for feedback applications

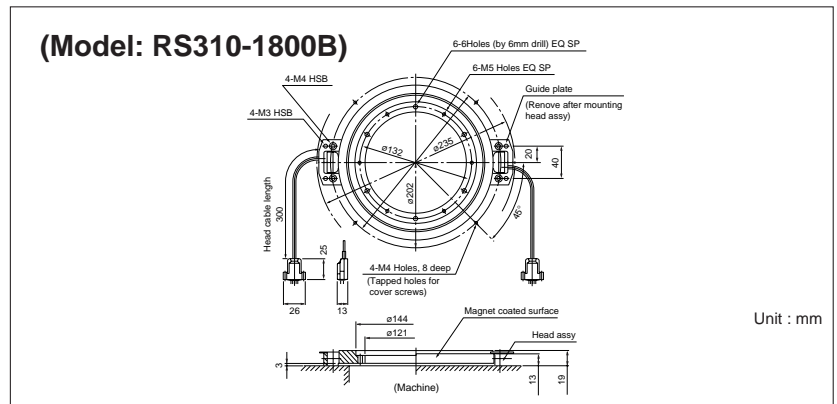
- Magnetic principle
- Excellent resistance to workshop conditions. Resistant to oil, dirt and vibrations.
- Thin design
- Cancels out error (less than 30 μm) due to jolting of the rotary shaft (2 head type RS310-1800B).
- Directly mountable onto a machine's rotary shaft. Large-diameter scale drum that can be used for large-sized machines such as turning centers.
- Easy installation
- Noncontact. Clearance: 0.1 mm/ 0.004"

Specifications

Model		RS310-1800A	RS310-1800B
No. of read heads		1	2
No. of recorded waves		1800 λ / revolution	
Recorded wave length		0.32 mm	
Resolution		1" /1000	
Clearance		100 to 110 μm (recommended)	
Cumulative pitch accuracy		± 1" /1000	
Interpolation accuracy		± 5"/10000 (With ripple ratio adjusted to 1.5%)	
Allowable scale drum runout		Keep to min. at installation*	30 μm or less*
Allowable head mounting face flatness		5 μm or less (No burs or unevenesses)	
Allowable residual machine magnetism		250 μT	
Max. mechanical revolutions		7000 min ⁻¹	
	Dimensions	ø 183.3 x ø 121 x 16 mm (ø 7.21" x ø 4.76" x 0.63") (Outer dia. x inner dia. x thickness)	
	Roundness	3 μm or less	
Scale drum	Mounting pitch dia	ø 132 mm/ 5.19"	
	Mass	Approx. 1.6 kg/ 3.53 lbs	
	Moment of inertia	1.1 x 10 ⁻² kg-m ²	
Diameter excl. cable guide		Max. approx. ø 235 mm/ 9.25"	
Operating temperature		0 °C to 40 °C/ 32 °F to 104 °F	
Storage temperature		-10 °C to 50 °C/ 14 °F to 122 °F	
Read heads	Mass	Approx. 0.12 kg/ 0.27 lbs	
	Cable length	300 mm/ 11.8"	

*With RS310-1800A, pitch accuracy lowers by 2.3" P-P for every increment of 1 μm in runout

Dimensions



System configuration

