

RE2010 SERIE



for Hybrids, Motors and Nuclear application



- ➡ Compact and small
- ➡ max. speed 160'000 RPM
- ➡ max. temperature up to 200°C
- ➡ Brushless Resolver
- ➡ Available in different models

Product description

The MICRONOR RE2010 frameless Resolver provides high performance in measurement and feedback applications where traditional resolver fail. Perfect for Aerospace, Space, Submarine or other severe applications. The solid rotor has no coils and the stator has only half the number of windings of a traditional brushless resolver, reliability is significantly increased. Solid rotor allows operation with the rotor oil or other liquids.

Application

Applications are Industrial tachometer, High-speed spindles, Motor feedback, for AC and DC Servo Motors, Angle measurement, Flight control systems, Hydraulic pumps, Down hole.

Technical specifications

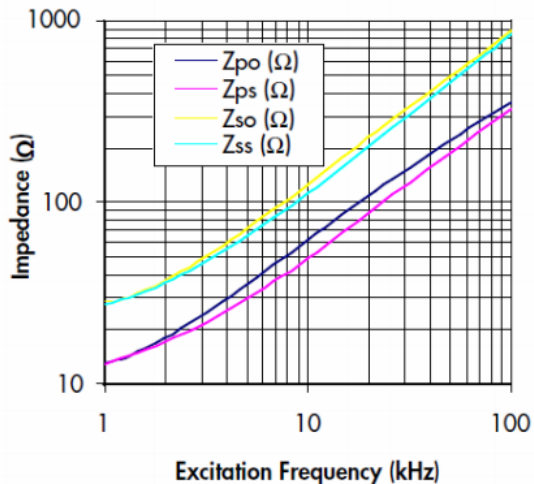
<p>Max. dimension Accuracy Bore diameter Cable outlet Lead wire size</p>	<p>ø 20 mm +/- 60 arc minutes ø 4-H7 axial 300 mm 26 AWG</p>
Electrical data	
<p>Excitation frequency Excitation amplitude Primary DC resistance Secondary DC resistance Transformation ratio Insulation Resistance Dielectric Strength winding to winding winding to housing</p>	<p>8 kHz typical 5 Vrms typical 11 Ohm (+/- 10%) 19 Ohm (+/- 10%) 0,5 (+/- 10%) 100 Mega Ohm minimum (Hipot) 300 Vac 500 Vac</p>
Mechanical data	
<p>Operating temperature Maximum speed Radial air gap Rotor inertia Weight Shock resistance Vibration</p>	<p>(see order code) (see order code) 0,3 mm nominal 2 gxc² 30 g 20G 10....50Hz, 10G over 0.5 Std.</p>

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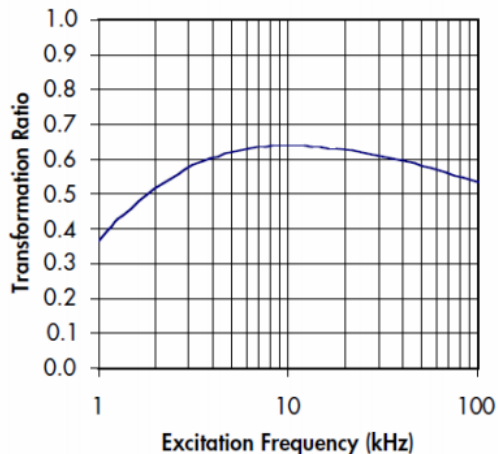


Electrical Outline drawing (only for info not absolute value)

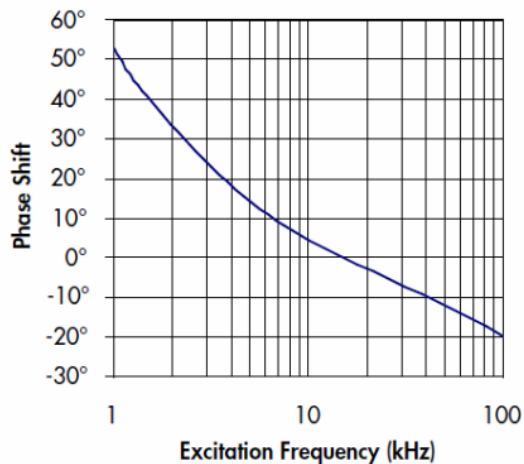
IMPEDANCES



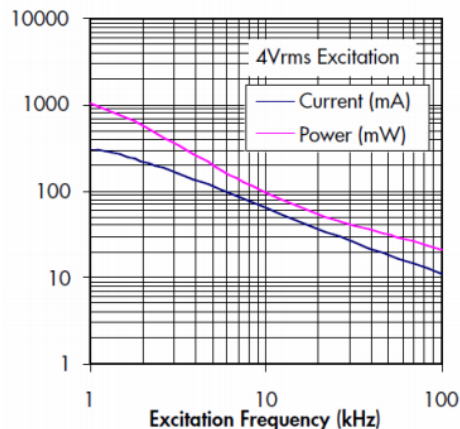
TRANSFORMATION RATIO



PHASE SHIFT

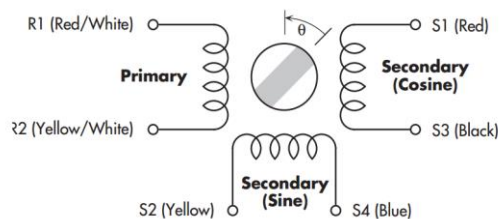


INPUT CURRENT AND Power



Electrical Connection

Ref+	red/white	R1
Ref-	yel/white	R2
Cos+	red	S1
Cos-	black	S3
Sin+	yellow	S2
Sin-	blue	S4



$$V_{(S1-S3)} = V_{(R1-R2)} \times TR \times \cos(\theta)$$

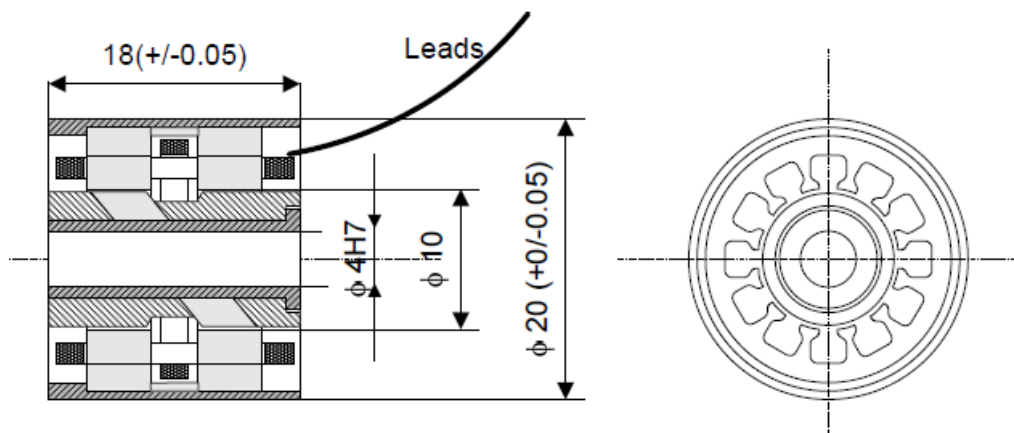
$$V_{(S2-S4)} = V_{(R1-R2)} \times TR \times \sin(\theta)$$

θ increases for CCW rotation when viewed from lead exit end

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Dimension in mm



Order Code

8200.00.000	Standard solution	
	Size	20 x 18mm
	Bore	4mm
	Leads length	300mm
	max. RPM	150'000
	Temperature range	- 40° ... +135°
8200.00.040	RAD solution	
	Size	20 x 18mm
	Bore	4mm
	Leads length	300mm
	max. RPM	160'000
	Temperature range	- 70°C...200°C
8200.00.050	High speed solution	
	Size	20 x 18mm
	Bore	4mm
	Leads length	300mm
	max. RPM	180'000
	Temperature range	- 40° ... +135°
8200.00.060	High temperature solution	
	Size	20 x 18mm
	Bore	4mm
	Leads length	300mm
	max. RPM	160'000
	Temperature range	- 70°C...200°C



Questions ?

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