

RE3620 SERIE



For hybrids, engines and nuclear applications

- ➔ Compact and balanced
- ➔ Max. Speed 110'000 rpm
- ➔ Max. Temperature range up to 200°C
- ➔ Brushless rotor
- ➔ Available in different versions

Product description

The MICRONOR RE3620 resolver, with its wrap-around free rotor, provides high availability and a reliable measurement and Feedback signal where traditional resolvers fail. Perfect for aerospace, submarine or other very harsh applications. The solid rotor has no winding and the stator has only half the windings of a traditional brushless resolver, significantly increasing reliability is significantly increased. The solid rotor allows operation in hydraulic oil or other fluids.

Application

Applications include tachometers, high speed spindle, motor feedbacks, AC or DC servo motors, angle measurements, hydraulic pumps, boring bars etc.

Technical Data

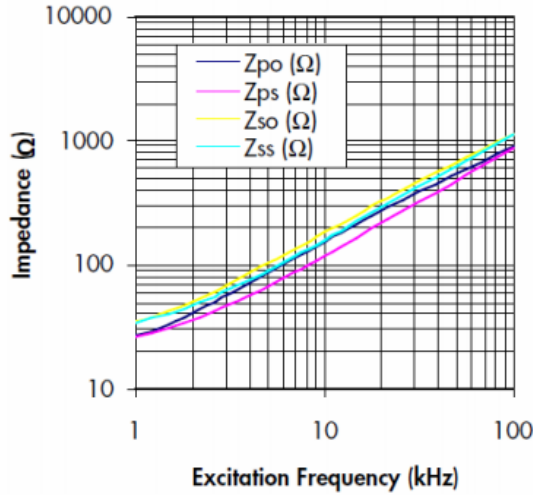
Housing size	ø 36 mm
Accuracy	+/- 60 arc minutes
Bore diameter (mm)	ø 10-H7
Cable exit	axial 300 mm
Strand type	26 AWG
Electrical data	
Feed frequency	8 kHz typical
Amplitude	5 Vrms typical
Input resistance	13 Ohm (+/- 10%)
Output resistance	20 Ohm (+/- 10%)
Transformation ratio	0.5 (+/- 10%)
Insulation resistance	100 Mega Ohm minimum
Dielectric values (Hipot)	300 Vac
Winding to winding	500 Vac
Winding to case	
Mechanical Data	
Working temperature	(See order code)
Max. Speed	(See ordering code)
Air gap	0.3 mm nominal
Rotor inertia	40 gxc ²
Shock	20G
Vibration	10....50Hz, 10G over 0.5 hr.

RE3620 SERIE

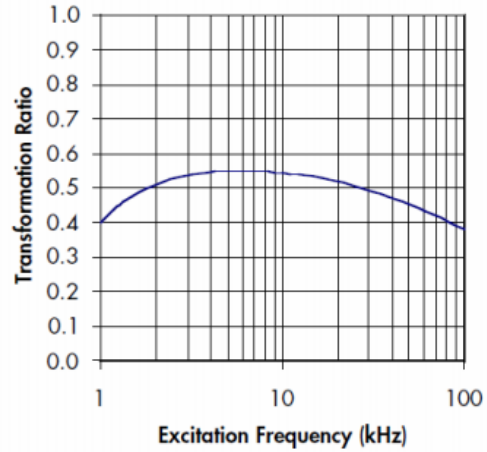


Electrical ratios (only as an example not absolute values)

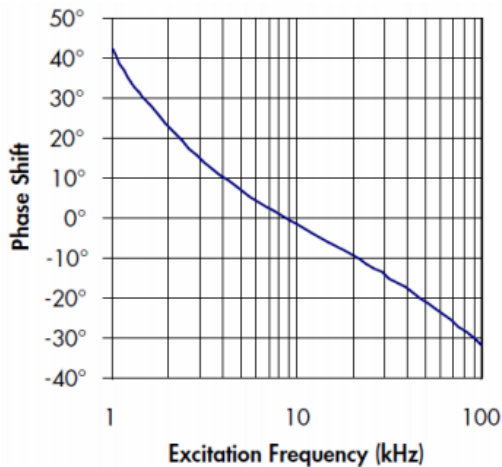
IMPEDANCES



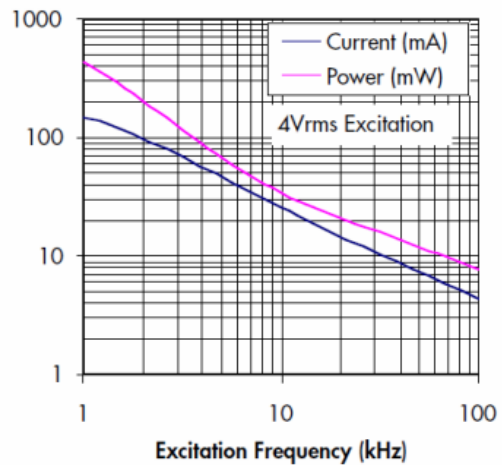
TRANSFORMATION RATIO



PHASE SHIFT

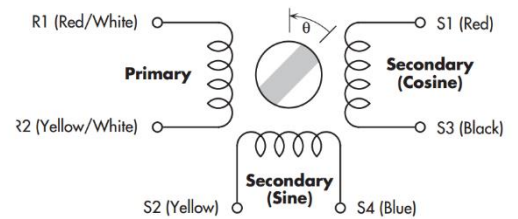


INPUT CURRENT AND Power



Electrical connection

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



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

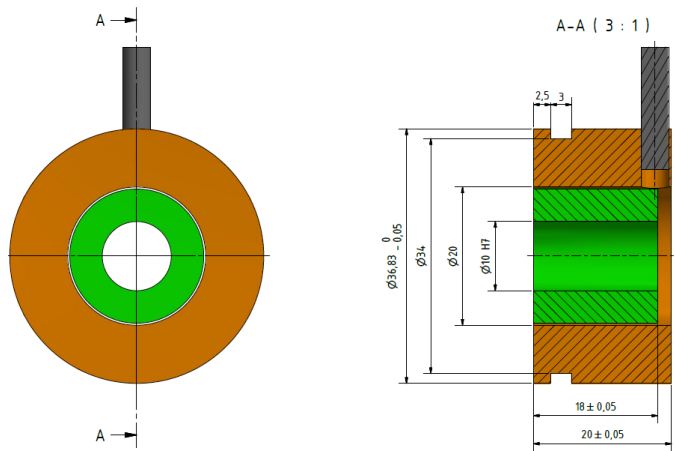
$$V_{(S2-S4)} = V_{(R1-R2)} \times TR \times \sin(\theta)$$

θ increases for CCW rotation when viewed from lead exit end

RE3620 SERIE



Reference drawing in mm



Order key

Order Key

8	2	0	0	.	0	2	.	1	0	0
									a	b

Configuration

a	Temperature	
	1 Standard	-40°C bis +135°C
2	High temperature	-70°C bis +200°C
b	Speed	
	1 Standard	100'000 U/min
2	High Speed	110'000 U/min



Do you have any questions ?

Phone: +41 (0)44 843 40 20 or Mail: sales@micronor.ch