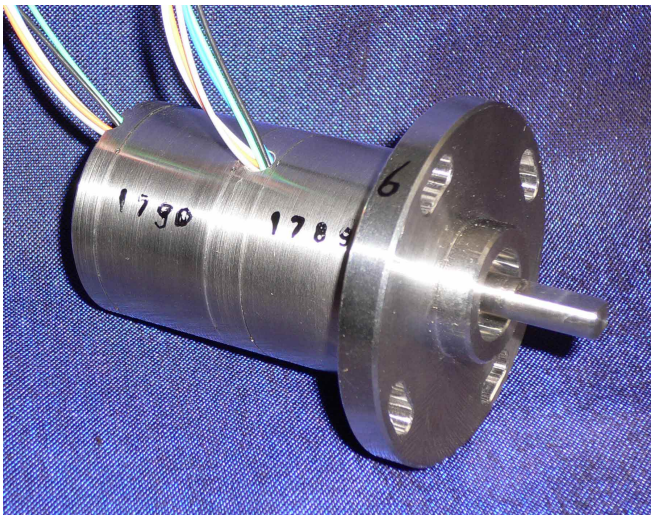


DG

ROTASYN

SOLID ROTOR RESOLVER

Solid rotor duplex brushless resolver for severe applications.

Admotec DG Series Rotasyn duplex resolvers provide high performance in measurement and feedback applications where traditional resolvers fail. Perfect for aerospace, down-hole, nuclear, and other severe applications, these solid-rotor duplex resolvers offer original equipment manufacturers reliable solutions at any quantity—from prototype units all the way up to high-volume production.

The Rotasyn has fewer parts and a solid rotor without windings, making it much simpler than traditional brushless resolvers. Since 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.

The Rotasyn resolver is mechanically and electrically compatible with traditional brushless resolvers and can replace them as original equipment or in existing applications. And if our standard products don't meet your needs, custom versions can be quickly designed for your application.

Admotec—motion and position sensing for original equipment manufacturers.

admotec
Advanced Motion Technology

Typical Applications

- Industrial tachometer
- Motor feedback
- Angle measurement
- Aerospace
- Downhole (oilwell)
- High-speed spindles
- AC and DC servo motors
- Flight control systems
- Hydraulic pumps
- Nuclear environments

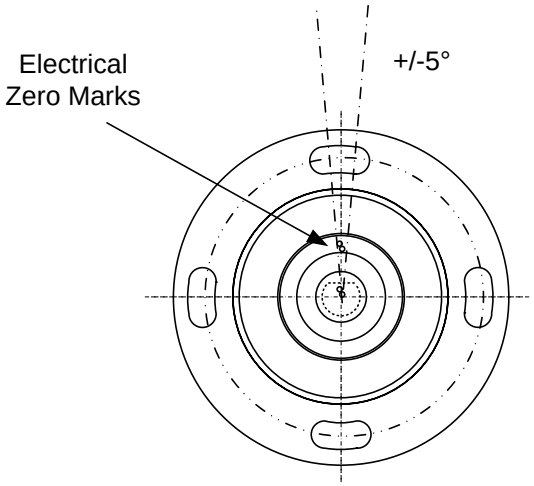
Features & Benefits

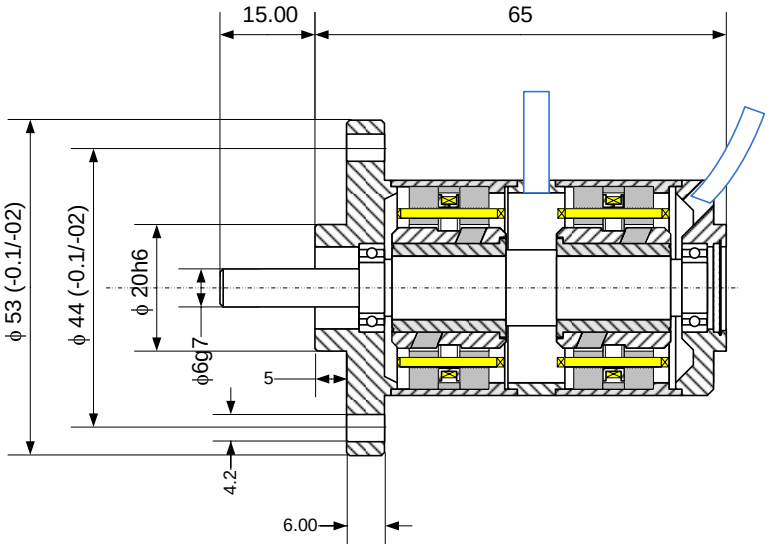
Duplex design	Increased redundancy
Rugged construction	Tolerates vibration and shock
Solid rotor	Higher speed, lower inertia
Lower impedance	Better noise immunity
Fewer coils	Higher reliability
Functionally equivalent to traditional brushless resolvers	Higher performance replacement for obsolete or unavailable devices
Absolute over 360°	No homing at power up

General Specifications

Operating Temp.		
DG2-3620-M	−40 to +150	°C
DG2-3620-K	−60 to +230	°C
Shock	20	G
Vibration	10	G (10–500 Hz, 0.5 Hr)
Radial Air Gap	0.3	mm nominal
Excitation Frequency	5 to 50	kHz typical
	10	kHz recommended
Excitation Amplitude	2 to 12	Vrms typical
Transformation Ratio	0.50	nominal
Accuracy	±60	arc-minutes
Insulation Resistance	100	Megohm minimum
Dielectric Strength (Hipot)		
Winding to Winding	250	Vdc
Winding to Housing	500	Vdc
Lead Wire Size	26	AWG
Lead Length	300	mm

DG2-3620 Outline & Mounting Dimensions*

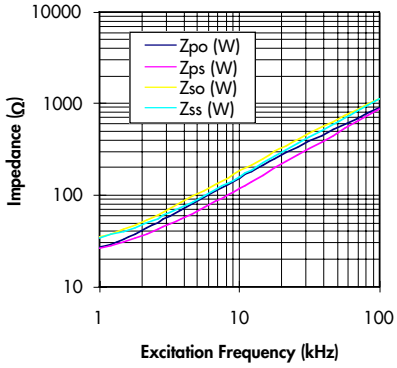




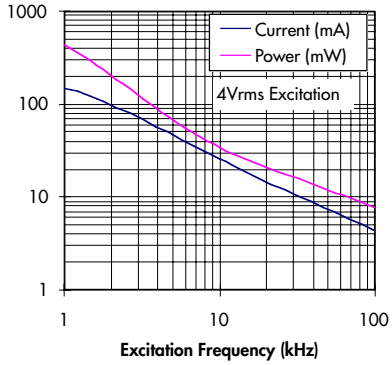
DG2-3620 Specifications

Mass (Weight)	350	grams
Maximum Speed	16	kRPM
Rotor Moment of Inertia	45	gram•cm^2
Primary DC Resistance	10	Ω nominal
Secondary DC Resistance	25	Ω nominal
Duplex Synchronization	≤ 30	arc-minutes

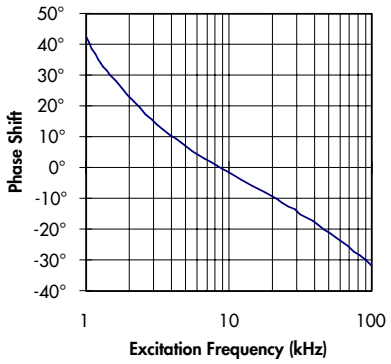
DG2-3620 Impedances



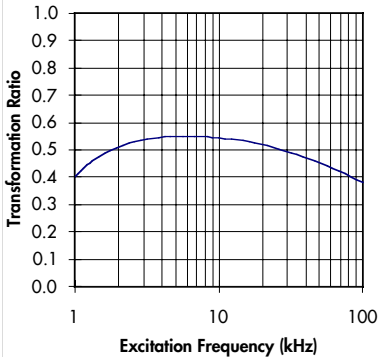
DG2-3620 Input Current and Power



DG2-3620 Phase Shift



DG2-3620 Transformation Ratio



DG2-3620 Ordering Information

DG2-3620 - □

Stator Construction

M = Standard

K = Hi Temp/Hi Rad (Kapton insulation)

Custom constructions available

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* All dimensions in mm.

DG0910