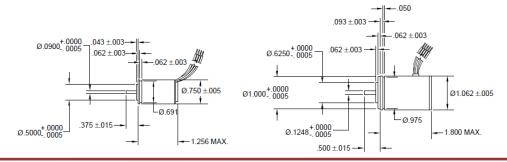
# **Woodward Engineered Components**

## **Product Specification**

### Synchro/Resolver Position Sensors

#### **Housed Brushless Synchro/Resolvers**

- Designs available for operation at 2VAC to 28VAC and 400 Hz to 10 KHz excitation
- Standard accuracy of 10 arc-minutes, high-accuracy designs to 3 arc-minutes (1 speed, 360° operating range)
- Multi-speed design capable of less than 1 arc-minute accuracy
- Custom input shafts, mounting features, cables, connectors, rigging aids, and other accessories readily available
- Transmitter (RX), Receiver (RC), or Differential (RD) configuration
- Aerospace-qualified construction per MIL-R-23417
- Custom accuracies, output characteristics, and synchro (3-phase) output available



#### Custom-Packaged Synchro/Resolvers

Geared and ungeared size 8 models with integral hard-mounted connector



- Multi-channel redundancy available in tandem (in-line) and cluster configurations
- Extended range, integrally geared models with ratios up to 4,000:1
- Environmentally sealed designs to meet DO-160 and MIL-STD-810 qualification requirements
- Mechanical envelopes tailored to application needs





Environmentally sealed cluster, tandem and geared tandem devices for flight control and harsh environment applications



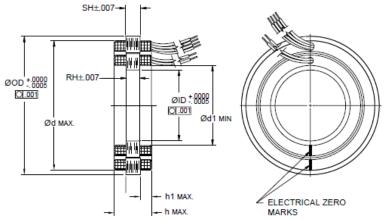
# **Woodward Engineered Components**

## **Product Specification**

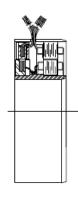
Synchro/Resolver Position Sensors

#### Frameless Synchro/Resolvers

- Single speed, multi-speed, and combination (coarse-fine) designs available
- Accuracies to 10 arc-seconds
- Brushless transformer-type designs available
- Custom rotor hubs and stator sleeves available on all frame sizes



Flying Lead Design Leadwires rotate with moving component



Brushless Design
All leadwires stationary - Contact
Woodward for exact dimensions

Frame Size	OD	ID	SH*	RH	d	d1	h*	h1*
8	.7100	.1250	.308	.280	.680	.200	.620	.120
10	.9660	.1285	.308	.280	.930	.150	.670	.175
14	1.3890	.5000	.308	.280	1.320	.700	.670	.175
20	1.8495	.8050	.308	.280	1.800	.840	.670	.175
25	2.4800	1.0450	.308	.280	2.310	1.260	.670	.175
28	2.8300	1.6540	.308	.280	2.775	1.700	.670	.170
30	2.9375	1.5047	.308	.280	2.750	1.700	.850	.250
34	3.3740	2.2503	.308	.280	3.270	2.350	.850	.250
38	3.8100	2.5950	.308	.280	3.685	2.830	.850	.250
42	4.1780	3.0010	.308	.280	4.150	3.120	.850	.250
52	5.2000	3.5000	.308	.280	5.000	3.700	.850	.250
63	6.3000	4.4710	.308	.280	6.200	4.500	.850	.250
120	11.280	10.500	.308	.280	11.100	10.700	.850	.250

<sup>\* &</sup>quot;SH," "h," and "h1" dimensions may be reduced based on excitation voltage and frequency. Consult Woodward Engineering for more information.

