

# ROTARY ENCODERS

## NSC NSC-RES Encoder

The servo-mount faceplate makes aligning electrical and mechanical zero fast and easy. In addition, this encoder is superior to a resolver by lowering costs and eliminating the need for an analog to digital converter. The NSC-1024-2MD-RES is a direct encoder replacement for a NEMA 11 resolver.



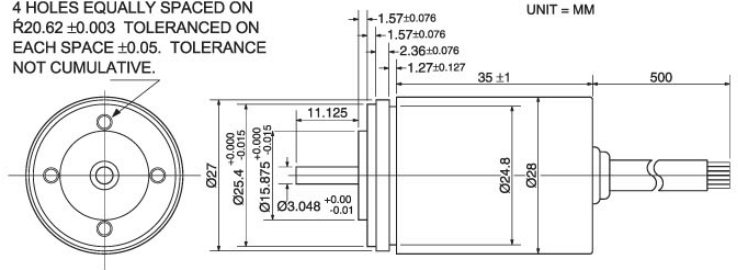
### Features:

- Digital output - communicates directly with the CPU
- Direct mechanical replacement with servo-mount
- Eliminates the cost of an A/D converter
- Typical cost is far lower than a resolver
- Works on 5VDC

*go online for full product details*

## NSC-RES dimensions/specs

#4-40 UNC-2B, 3.175 MIN. DEPTH  
4 HOLES EQUALLY SPACED ON  
R20.62 ±0.003 TOLERANCED ON  
EACH SPACE ±0.05. TOLERANCE  
NOT CUMULATIVE.



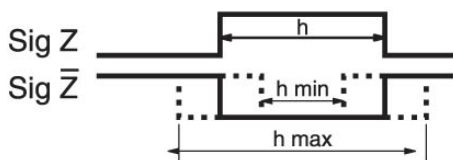
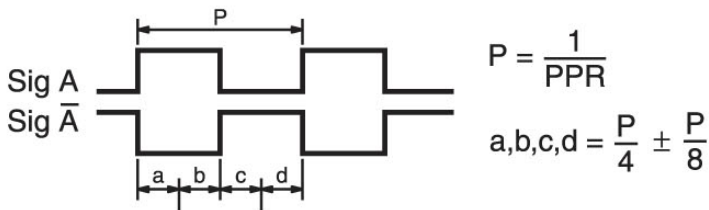
| electrical      |                          |
|-----------------|--------------------------|
| resolution      | 1024PPR                  |
| supply voltage  | 5VDC ±5%                 |
| current         | 150mA max.               |
| output voltage  | H=2.5V min.; L=0.5V max. |
| sink current    | 20mA max.                |
| signal risetime | 200nS max.               |
| freq. response  | 150kHz max.              |

| mechanical           |  |
|----------------------|--|
| max shaft load       | radial: 1.0 kgf; axial: 0.5 kgf        |
| moment of inertia    | 2.0 g•cm <sup>2</sup>                  |
| angular acceleration | 1 x 10 <sup>5</sup> rad/S <sup>2</sup> |
| max slewing speed    | 6000 RPM                               |
| starting torque      | 10 gf•cm max                           |
| rotational life      | 1 x 10 <sup>8</sup> rpm•hrs            |

| environmental  |                          |
|----------------|--------------------------|
| operating temp | -10° to ± 70° C          |
| storage temp   | -30° to ± 80° C          |
| humidity       | ≤85% RH, no condensation |
| vibration      | 10~55 Hz, 1.5mm, 2 hrs.  |
| shock          | 50G, 11ms, 3 axes, 3reps |

## NSC-RES output waveform

*clockwise rotation viewed from front*



## ordering



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