



# precision rotary transducer

- conductive plastic

model 50ESC103W04515A

MIL-R 39023  
NF C 93-255

- SIZE 05
- REASONABLE COST
- LONGLIFE
- ACCURACY  $\pm 0.25\%$
- SERVO MOUNTING
- REAR MOUNTED TERMINALS WITH LOADS

## ELECTRICAL SPECIFICATIONS

|                                    |                         |
|------------------------------------|-------------------------|
| Maximum power rating at 70°C       | 0.2W                    |
| Independent linearity              | $\pm 0.25\%$            |
| Actual electrical angle (AEA)      | $330^\circ \pm 5^\circ$ |
| Theoretical electrical angle (TEA) | AEA - $2^\circ$         |
| Ohmic values (Rt) at $\pm 20\%$    | 10 K $\Omega$           |
| Output smoothness                  | 0.05% max               |
| Wiper current                      | 1 mA max continu        |
| Resistance load on wiper           | 1000 x Rt               |
| Insulation resistance              | 1000 MOhms min, 500 Vdc |
| Dielectric strength                | 500 Vrms min, 50 Hz     |

## MECHANICAL SPECIFICATIONS

|                       |                                     |
|-----------------------|-------------------------------------|
| Mechanical angle (MA) | 360° continu                        |
| Mounting type         | servo                               |
| Shaft                 | Length 8.1 $\pm$ 0.8                |
| Termination           | 28 gauge wires, L=10 inch $\pm$ 0.1 |
| Starting torque       | 0.2 N.cm max                        |

## PERFORMANCE

|                             |                                      |
|-----------------------------|--------------------------------------|
| Life ( $10^6$ cycles)       | 30                                   |
| Temperature range           | -55°C, +125°C                        |
| Climatic category           | 55 / 125 / 04                        |
| Speed rotation (RPM)        | 600                                  |
| Sine vibration on 3 axes    | 1,5 mm or 20 g from 10 Hz to 2000 Hz |
| Mechanical shocks on 3 axes | 50g - 11 ms - half sine              |