

DIGITAL CODER, SHAFT POSITION, OPTICAL
5895-99-521-1683

SUMMARY OF DATA

PURPOSE

The coder converts a mechanical shaft angular position input to an electrical (digital) output. The unit provides eight output tracks in binary form. Two tracks are incremental sine and cosine, four are linear giving counts from 4 to 4096 per revolution and two provide north-south and east-west markers.

BRIEF DESCRIPTION

The conversion from shaft angular position to digital electrical output is achieved with a glass disc mounting on the shaft. The glass disc is marked with clear-opaque patterns. Light is projected through the disc on to a number of photo-cells as light and dark states according to the patterns. The signals from the photo-cells provide balanced two wire outputs using amplifiers and line drivers. The light source is duplicated and an automatic change-over circuit is used to bring in a stand-by lamp if the master lamp fails.

POWER REQUIREMENTS

The following power supplies are connected to the coder via Plug Electrical 50 pole 5935-99-940-2611;

- 0 volts
- + 6 volts $\begin{matrix} +0.5 \\ -0 \end{matrix}$ volts, 1 amp
- 6 volts $\begin{matrix} +0 \\ -0.5 \end{matrix}$ volts, 1 amp

PHYSICAL DATA

<u>Diameter</u>	<u>Length</u>	<u>Weight</u>
12.0 cm (4.75 in)	10.8 cm (4.25 in)	1.9 kg (4.25 lb)

HANDBOOK

BR 2461

