

Inductosyn Encoder

Features

- High resolution and accuracy
- Remote sensing with operation over a wide temperature and humidity range

Description

MI Technologies offers an encoder option for many positioner models that provides an axis position accuracy of 0.005° worst case peak error with 0.0001° resolution. The increased accuracy and resolution enhances total antenna measurement system performance beyond conventional synchro transducers and optical encoding techniques.

The encoder package is available as a factory installed option or as a field upgrade for Series 5020 or Rev. "B" type positioner models. The encoder option includes the Inductosyn transducer along with the necessary cabling, electronics, and hardware, which is terminated at the positioner for interfacing with the Model 1885 Position Indicator or Model 1886 Position Data Processor.

The Model 1885 Position Indicator has the capability of processing six axes of position data while selectively displaying any two of the six axes. Up to three axes of position data can be input directly to the Model 1885. With the accessory Model 1886 Position Data Processor, up to six axes of position data can be input for processing and display. All six axes of position data as well as the front-panel controls can be accessed via the standard IEEE-488 Interface. Position data, updated every 400 nanoseconds, also can be accessed for any two of the six axes processed via two independent BCD ports.

The Model 1886 is also used when interfacing encoders with the Model 1885 at range lengths greater than 200 ft. The Model 1886 transmits the position data over an RS-232C/449 digital link up to 4,000 ft. Unlimited range lengths may be achieved with the use of digital modems. For more detailed information, refer to the Series 1880 Position Indicator cabling section.

Specifications

Size

6 inch, 512 Pole Rotor and Stator

Resolution

0.0001° with Model 1885 Position Indicator

Encoder Option Accuracy

±0.003° Peak Error

Position Accuracy

±0.005° Peak Error with Model 1885 Position Indicator

Repeatability

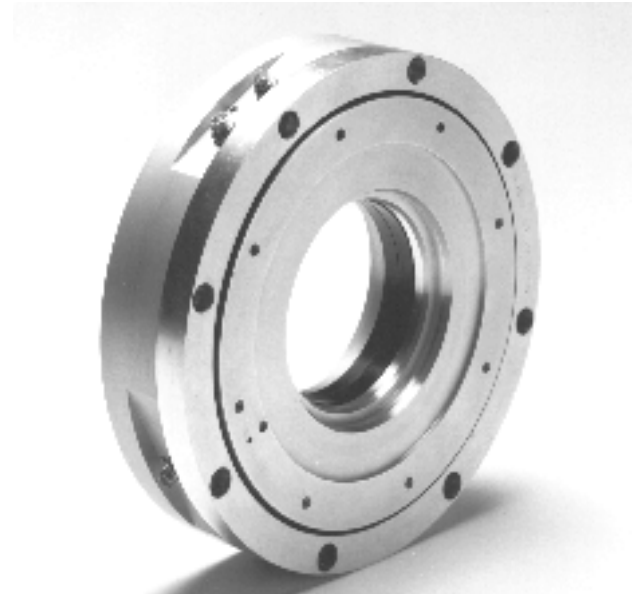
Within 0.0008°

Temperature

-20°C to +50°C

Humidity

90% Noncondensing



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Products – Positioners, Pylons, and Controllers

Inductosyn Encoder - continued

Ordering Information

The Inductosyn encoder option is available with the following positioner series:

5X23XB	5X30XB
5X24XB	5X43XB
5X26XB	5X45XB
5X29XB	

It is ordered as the following option numbers:

- ()-20 Option for azimuth axes
- ()-21 Option for elevation axes
- ()-22 Option for upper azimuth axis of Series 55000 Positioners

For Series 55000 Positioners, a slipping option cannot be installed in lower azimuth if ()-21 or ()-22 is chosen.

Consult the local MI Technologies Sales Office for applications with other positioner series.

Options

None

Accessories

Model 1885 Position Indicator

Model 1886 Position Data Processor

Outdoor Enclosure for Model 1886 – P/N 314521

Outdoor Enclosure for Model 1886 and Model 4181 Mainframe – P/N 315215