Bently Nevada Service Manual

TACH100

1. Description

Bently nevada TACH100 Standalone Digital Tachometer

3. Product Information

Bently nevada TACH100 Standalone Digital Tachometer

The Bently Nevada TACH100 Digital Tachometer can be used as a stand-alone unit for speed indication or in conjunction with any permanently installed monitoring system as a remote speed indicator. It is often used when a permanent monitoring system is located some distance away (e.g. in a control room) or when no permanent monitoring system is installed and speed indication is required at the machine. The digital tachometer is a compact unit, containing its own power supply that can power a Proximitor sensor (-24 Vdc). The tachometer also accepts signal and common wires from an externally-powered Keyphasor Proximity Probe (such as may be available when a permanent monitoring system is installed). The wires can be connected in parallel with the Keyphasor input on the monitor rack or to the Keyphasor probe itself.

Inputs

Signal From any Bently Nevada Proximitor Sensor.

Threshold Automatic adjustment.

Hysteresis 0.2 Vdc to 2.5Vdc, fieldadjustable.

Events Per Turn 1 to 99, field-adjustable.

Electrical

Supply

110-230 Vac, 50-60 Hz. 1.5 Amp, SB fuse. 1.01 Watts nominal power consumption with 88888 displayed.

Outputs

Display Type

6-digit LED, 7 segments per digit. Digit height is 13.2 mm (0.52 in)

Measurement

Range 1 to 999,999 rpm.

Measurement

Resolution 1 rpm

Measurement

Accuracy

Accurate to within 0.015% of input speed displayed in RPM.

Display

Hysteresis

Input signal must change by 0.003% minimum to display a new output value.

Proximitor Power -24 Vdc at 20 mA maximum.

Environmental Limits

Pollution

Degree 2

Installation

Category II

Altitude 2000 m

Operating

Temperature

0°C to +60°C (+32°F to +140°F)

Storage

Temperature

-40°C to +85°C (-40°F to

+185°F)

Relative

Humidity 95% max, noncondensing

Physical Size

Height 76.2 mm (3 in)

Width 139.7 mm (5.5 in)

Depth 149.1 mm (5.8 in)

Weight 1.13 kg (2.5 lb)

EMC Directives

Radiated

Emissions EN5501, Group 1 Class A

Conducted

Emissions EN5501, Group 1 Class A

EN61000-6-2

Electrostatic

Discharge

IEC 61000-4-2, Criteria B

Radiated

Susceptibility IEC 61000-4-3, Criteria A

Electrical Fast

Transient IEC 61000-4-4, Criteria B

AC Power Surge

Susceptibility IEC 61000-4-5, Criteria B

AC Power Flicker

Emissions IEC 61000-3-3, Criteria A

RF Conducted

Susceptibility IEC 61000-4-6, Criteria A

Voltage Interrupt

Susceptibility IEC 61000-4-11, Criteria B

Voltage Dip

Susceptibility IEC 61000-4-11, Criteria A

EMC Standards

This product is tested to meet Council Directive

89/336/EEC Electromagnetic Compatibility

(EMC) as last amended by EC Directive

93/68/EEC.

EN61000-6-4 Generic emission standard, Part 2,

Industrial Environment. EN61000-6-2 EMC

Generic Immunity standard, Part 2, Industrial

Environment.

Certificate of Conformity

Registration Number: AE 72062927 0001