

# Radial Displacement Transmitter



# Description

The 1-828 series radial displacement transmitters continue the successful line of vibration transmitters designed and manufactured by CEC. These single channel signal conditioners interface with proximity transducers like the 3300, 3300XL and 7200 series or probe types with similar specifications.

Each unit provides a calibrated 4-20 mA output that is proportional to the radial peak to peak displacement vibration sensed by the transducer and extension system. The probe Gap and buffered dynamic signal are easily accessed via the front panel BNC.

## **Applications**

- Turbine / Generator Sets
- Fans or Blowers
- Motors
- Gear Boxes
- Bearing Caps

#### **Features**

- 4-20 mA output proportional to mils Peak-to-Peak displacement
- Compatible with major probe types
- DIN Rail mountable
- Probe failure detect modes
- BNC buffered output and Gap voltage

Probe failure conditions are quickly identified via the multicolored status LED and the 4-20 mA output. This unique feature allows for instant feedback of the probe system condition during installation or machine operation.











### 1-828 Radial Displacement Transmitter

#### Performance Specifications

Frequency Response: 5 Hz - 4kHz (-3 dB)

Input: Ref. 3300, 3300XL, 7200 series or

equivalent

**Outputs:** 

Current 4-20 mA proportional to 5 mils or

10 mils peak to peak displacement

ranges (see table 1)

**Buffered Signal (GAP V)** Buffered sensor signal, short

circuit protected, BNC connector

**Operating Linear Range:** 0 to 16 VDC corresponding to a

gap of 10 to 90 mils.

Isolation: 500 VDC case to circuit 18 - 32 VDC @ 250 mA **Power Supply:** 

Maximum Load Resistance: 1K ohms

Range: 5 to 10 mils (see table 1)

Sensitivity:

Scale -200 mV/mil **Accuracy** ±5% at 77°F

**Temperature Coefficient** ±3.5% per 100°F temperature

Linearity increase from 77°F

±1 mil of best fit straight line

**Target Material:** 4140 stainless steel or Incoloy 901

(see Table 1)

**Probe Failure Detect:** 

Probe to close to target Output goes below 2.5 mA if the

gap is less than 10 mils

Probe not connected or

Output goes to 20.5 mA if gap is

too far from target greater than 90 mils -40°F to +150°F **Operating Temperature:** 

**Relative Humidity:** To 95% non-condensing Shieldina: Yes, see case material

**Dimensions:** See Figure 1 Weight: 8 ounces

Mounting: 35 mm DIN rail

Case Material: PVC with interior zinc overspray

Terminals: **Tension Loaded Contacts** 

**BNC Connector:** Cover Provided

#### **Hazardous Approvals**



#### **North America**

CSA C/US Class I, Division 2, Groups A, B, C and D Temp Code T3C; Amb. Temp -40°C to 65°C



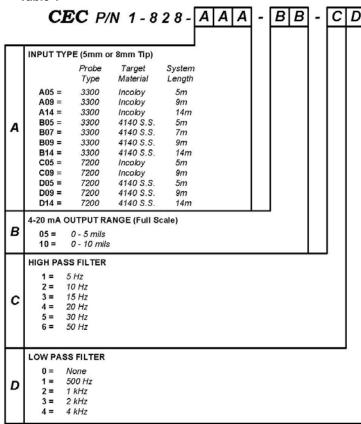
#### European ATEX

II 3 G Ex nA II T3

#### Ordering Information

When ordering, use table 1 to develop part number. In keeping with CEC's policy of continuing product improvement, specifications may be changed without notice.

Table 1



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Figure 1

