

1-830 Axial Displacement Vibration Transmitter

Applications

- Turbine / Generator Sets
- Fans or Blowers
- Motors
- Gearboxes
- Bearing Caps

Features

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



Description

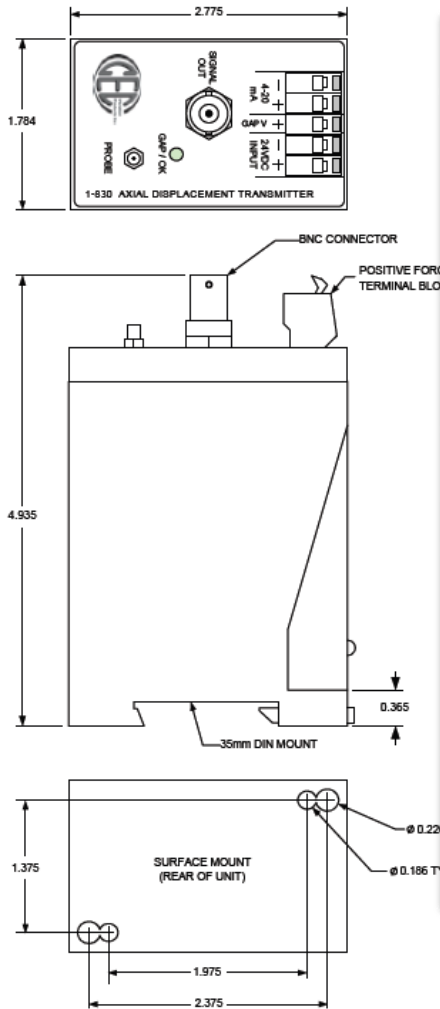
The 1-830 series axial displacement transmitters continue the successful line of vibration transmitters designed and manufactured by CEC. These single channel signal conditioners interface with proximity transducers like the 3300, 3300XL and 7200 series or probe types with similar specifications.

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

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.

Performance Specifications

Input:	Ref. 3300, 3300XL, 7200 series or equivalent	Target Material:	4140 stainless steel or Incoloy 901 (see Table 1)
Operating Linear Range:	0 to 16 VDC corresponding to a gap of 25 to 80 mils.	Probe Failure Detect:	
Outputs:		Probe to close to target	Output goes below 2.5 mA if the gap is less than 25 mils
Current:	4-20 mA proportional to displacement where 4mA = 25 mils & 20mA = 80 mils, voltage reversal and short circuit protected terminal connection.	Probe not connected or too far from target	Output goes to 20.5 mA if gap is greater than 80 mils
Buffered Signal (GAP V)	Buffered sensor signal, short circuit protected, BNC connector	Operating Temperature:	-40°C to 65.6°C (-40°F to +150°F)
Isolation:	500 VDC case to circuit	Relative Humidity:	To 95% non-condensing
Power Supply:	18 - 32 VDC @ 250 mA	Dimensions:	See Figure 1
Maximum Load Resistance:	1K ohms	Weight:	10 ounces
Range:	50 mils (±25 mils from 50 mil offset)	Mounting:	35 mm DIN rail
Sensitivity:		Case Material:	PVC with interior zinc overspray
Scale	-200 mV/mil	Terminals:	Tension Loaded Contacts
Accuracy	±5% at 77°F	BNC Connector:	Cover Provided
Temperature Coefficient	±3.5% per 100°F temperature increase from 77°F		
Linearity	±1 mil of best fit straight line		



Example:

CEC Part Number:

Ordering Guide

1 - 830 - AAA

**Axial
Displacement
Transmitter**

Input Type (5mm or 8mm tip)

	Probe Type	Target Material	System Length
A05	3300	Incoloy	5m
A09	3300	Incoloy	9m
A14	3300	Incoloy	14m
B05	3300	4140 S.S.	5m
B07	3300	4140 S.S.	7m
B09	3300	4140 S.S.	9m
B14	3300	4140 S.S.	14m
C05	7200	Incoloy	5m
C09	7200	Incoloy	9m
D05	7200	4140 S.S.	5m
D09	7200	4140 S.S.	9m
D14	7200	4140 S.S.	14m

Hazardous Area Rating



North American
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