

## AB330137 Radial Signal Conditioner and Controller

## AB330138 Axial Signal Conditioner and Controller

### Application:

AB330137/8 Radial/Axial Signal Conditioner and Controller is widely used in the condition monitoring and failure analysis of the shell vibration of mechanical devices, such as: petrochemical pipeline, centrifuge, steam turbine, blowing engine, generator, motor, air compressor, engine, pumps, gear boxes, industrial fans and other critical machineries.

### Features:

- Built-in integrated driver, directly-connected sensor
- Providing -24V voltage for proximity probe, receiving voltage signals from probe and converting to 4-20mA signal
- EMC electromagnetic compatibility
- High sensitivity and accuracy
- Double circuit alarm control relays; AB330136 with 4-level alarm settings
- 4-20mA output or 1-5v output
- Remote reset (bypass alarm) function
- Bright LED local display
- Optional DIN-rail mounting
- Two groups of dynamic signal output
- Sensor malfunction indication
- Compatible to 5/8/11mm proximity probes by most major manufacturers

### Specifications

#### Electrical

#### Power Supply Voltage:

18 to 30VDC, 100mA; 90 to 265 VAC; 50/60Hz, 50mA. Power Supply for Sensor: -24V, 30mA.

#### Output:

4-20mA, **Maximum** Signal Transmission Distance: 1000m, Maximum Load Resistance: 750 Ω; 1-5V, **Maximum** Signal Transmission Distance: 300m to 500m, Output Impedance: 50Ω;

#### Double circuit alarm control relays

#### Type: SPDT:

7A, 30VDC; 7A, 250VAC; 12A, 125VAC.

**Alarm Setpoint Range:** 0-100% of vibration full range. AB330138 with 4-level alarm settings: 0-100% of vibration full range.

LED Indicator: Bright LED,

Green OK light: indicating sensor condition

Yellow Alert Light: Indicating 1st circuit "Alert" condition

Red Alert Light: Indicating 2nd circuit "Danger" condition

**Sensor Malfunction:** Output current driven below 3mA, sensor breaks off; Green "OK" light off.

**Frequency Response:** AB330137: 2-10KHz



**Testing Material:** AISI4140

**ESD Protect:** Connectors provide ESD protection.

#### Linear Range:

-1 to 1mm (5/8mm probe);

-2 to 2mm (11mm probe);

#### Signal Output Connection:

**BNC connector (TEST) and terminal (GAPV):**

Used with 5/8mm probes, sensitivity is 8mV/um;

Used with 11mm probes, sensitivity is 4mV/um;

Sensor Output: 2-18VDC

Suggested probe voltage: 8 ±0.2v.

Output Impedance: 100Ω.

**Maximum Signal Transmission Distance:**  
300m to 500m.

#### Environmental

**Temperature Limits:** -40°C to +85°C;

**Storage Temperature Range:** -51°C to +100°C;

**Operating Humidity Range:**

**95% non-condensing, external environmental protection is required.**

#### Physical

#### Dimensions(mm):

35mm DIN Rail-Mounting:

130 (Length) x 73 (wide) x 82 (height)

Baseplate mounting:

120 (Length) x 88 (wide) x 79 (height)

**Weight:** 600g;

**Enclosure:** Aluminum casting

#### Installation:

35mm DIN rail or baseplate mounting:

## How to Select

**MODEL** AB330137-AXX-BX-CX-DX-EX

**Standard:** AB330137-01-0-0-0-0

### A: Range Code (PK-PK)

- 01: 0-75um
- 02: 0-100um
- 03: 0-125um
- 04: 0-200um
- 05: 0-250um
- 06: 0-500um
- 07: 0-800um
- 08: 0-1000um

### B: Power Supply

- 0: 24VDC
- 1: 90 - 265 VAC

### C: Alarm control relays

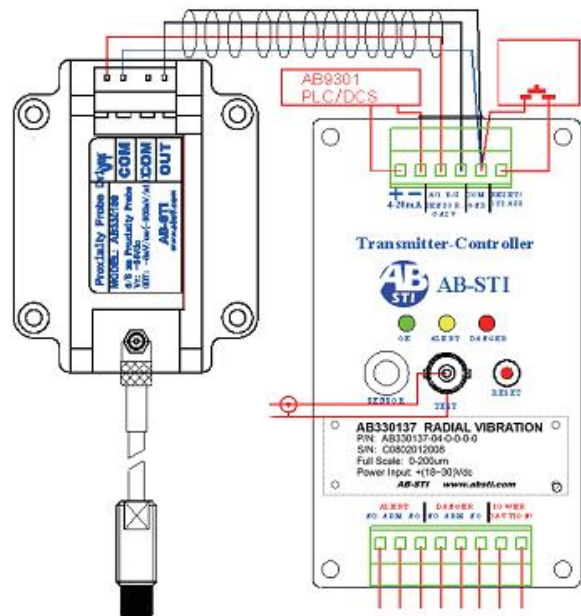
- 0: Double circuit alarm control relays
- 1: None

### D. Transmitter Output

- 0: 4-20mA
- 1: 1-5V

### E. Mounting Style:

- 0: 35mm DIN-rail
- 1: Baseplate



## NOTES:

When using this model, proximity sensors or compatible products must be selected; no driver needed.

## How to Select

**MODEL** AB330138-AX-BX-CX-DX-EX

**Standard:** AB330138-1-0-0-0-0

### A: Range Code (mm)

- 0: (-1) - 0 - (+1)
- 1: (-0.75) - 0 - (+0.75)
- 2: (-2) - 0 - (+2)

### B: Power Supply

- 0: 24VDC
- 1: 90 - 265 VAC

### C: Alarm control relays

- 0: Double circuit alarm control relays
- 1: None

### D. Transmitter Output

- 0: 4-20mA
- 1: 1-5V

### E. Mounting Style:

- 0: 35mm DIN-rail
- 1: Baseplate