

# 200150-09-CN

## General-Purpose Accelerometer

Bently Nevada 200150-09-CN is a general-purpose accelerometer for Trendmaster monitoring systems. It converts machine-case acceleration into the signal used for vibration trending and condition assessment.

| Manufacturer      | Bently Nevada                                                      |
|-------------------|--------------------------------------------------------------------|
| Product family    | Trendmaster 2000 and Trendmaster Pro                               |
| Part number       | 200150-09-CN                                                       |
| Country of origin | USA                                                                |
| Source            | 200150, 200155 and 200157 Accelerometers Datasheet — 164986 Rev. Y |

### Product role

- 1

Converts casing acceleration into an IEPE-compatible electrical signal
- 2

Supports general-purpose Trendmaster vibration measurements
- 3

Uses a ceramic-shear sensing element in a stainless-steel case
- 4

Accepts the configured threaded mounting adaptor

### Document purpose

| Technical review     | Model identity and manufacturer-published values      |
|----------------------|-------------------------------------------------------|
| Installation review  | Mounting, connection and companion-hardware checks    |
| Commissioning review | Controlled signal, diagnostic and functional response |

APTER POWER SALES TEAM

WHATSAPP / PHONE<br/>+86 180 3023 5313

EMAIL<br/>sales13@apterpower.com

WEBSITE<br/>www.apterpower.com



200150-09-CN

# 1. Technical specifications

The following values are transcribed only from the manufacturer records named in this document.

| Sensitivity             | 10.2 mV/(m/s2) (100 mV/g), +/-12% |
|-------------------------|-----------------------------------|
| Acceleration range      | +/-245 m/s2 (+/-25 g)             |
| Resonant frequency      | >20 kHz                           |
| Amplitude linearity     | +/-2%                             |
| Transverse sensitivity  | 7% maximum                        |
| Settling time           | 300 ms maximum                    |
| Mounting thread         | 3/8-24 female                     |
| Mounting torque         | 2.7 to 6.8 N m                    |
| Sensing design          | Ceramic shear                     |
| Case material           | 316L stainless steel              |
| Connector               | 5-pin, 1/2-20                     |
| Mounting adaptor option | 3/8-24 to 3/4 NPT, 1-1/4 in hex   |

## Configuration identity checks

| Complete model    | 200150-09-CN                         |
|-------------------|--------------------------------------|
| Manufacturer part | 200150-09-CN                         |
| Installed family  | Trendmaster 2000 and Trendmaster Pro |
| Record authority  | 164986 Rev. Y                        |

## 2. System function and integration

Bently Nevada 200150-09-CN is a general-purpose accelerometer for Trendmaster monitoring systems. It converts machine-case acceleration into the signal used for vibration trending and condition assessment.

### Compatible installation elements

| Component 1 | Trendmaster 2000 or Trendmaster Pro channel |
|-------------|---------------------------------------------|
| Component 2 | compatible accelerometer interface cable    |
| Component 3 | threaded machine mounting point             |
| Component 4 | approved signal-conditioning input          |

### Engineered application matrix

| Machine-case vibration trending          | Converts casing acceleration into an IEPE-compatible electrical signal |
|------------------------------------------|------------------------------------------------------------------------|
| Motor bearing-housing monitoring         | Supports general-purpose Trendmaster vibration measurements            |
| Pump condition monitoring                | Uses a ceramic-shear sensing element in a stainless-steel case         |
| Fan and gearbox acceleration measurement | Accepts the configured threaded mounting adaptor                       |

### Related products on Apter Power

| 200150-06-CN    | General-purpose accelerometer | <a href="#">Open product page</a> |
|-----------------|-------------------------------|-----------------------------------|
| 200155-00-CN    | Low-frequency accelerometer   | <a href="#">Open product page</a> |
| 200151-40-03-00 | Accelerometer interface cable | <a href="#">Open product page</a> |
| 16710-50        | Armored accelerometer cable   | <a href="#">Open product page</a> |

### 3. Installation and commissioning controls

Mount 200150-09-CN on a clean, rigid surface using the configured adaptor and published torque, then verify connector seating, bias condition and signal polarity before collecting baseline vibration data.

- 1

Confirm the full 200150-09-CN marking and mounting adaptor before installation.
- 2
- Isolate the connected monitoring input before cable work.

3

4

5

6

7

8

#### Acceptance record

| Identity              | 200150-09-CN recorded                                     |
|-----------------------|-----------------------------------------------------------|
| Mounting / connection | Trendmaster 2000 or Trendmaster Pro channel               |
| Companion hardware    | compatible accelerometer interface cable                  |
| Functional duty       | Machine-case vibration trending                           |
| As-left evidence      | Connections, diagnostics and controlled response recorded |

#### Return-to-service sequence

| 1 | Confirm physical security and connector condition            |
|---|--------------------------------------------------------------|
| 2 | Restore the documented channel or system configuration       |
| 3 | Observe stable diagnostics before applying a controlled test |
| 4 | Record the final process response and release authorization  |

## 4. Engineer FAQ and source record

|                                                                   |                                                                                                                                                                                                              |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| What must be matched before replacing 200150-09-CN?               | Match the complete 200150-09-CN marking, general-purpose accelerometer, installed mounting or connector execution and the approved equipment record before removal.                                          |
| Which system components should be checked with 200150-09-CN?      | Confirm the installed Trendmaster 2000 or Trendmaster Pro channel, compatible accelerometer interface cable and the assigned monitoring or connection point are the documented combination for 200150-09-CN. |
| How should wiring or cabling for 200150-09-CN be recorded?        | Record conductor identity, shield termination, connector orientation, cable route and the as-found diagnostic state before disconnecting 200150-09-CN.                                                       |
| What installation control is important for 200150-09-CN?          | Use the model-specific mounting arrangement, protect mating surfaces and maintain the documented cable support and mechanical clearance for 200150-09-CN.                                                    |
| How is 200150-09-CN checked during commissioning?                 | Apply the approved controlled test for machine-case vibration trending, verify polarity or direction where applicable, and compare the measured response with the configured channel.                        |
| Can parameters from a similar model be used for 200150-09-CN?     | No. Retain only values and configuration details that apply directly to the complete 200150-09-CN ordering code and installed system.                                                                        |
| What maintenance evidence should be retained for 200150-09-CN?    | Retain the full 200150-09-CN identity, as-left mounting and connections, continuity or bias checks, diagnostics and the final functional-test result.                                                        |
| What should be verified before returning 200150-09-CN to service? | Confirm secure mounting, connector integrity, restored configuration, stable signal behavior and the intended response of the associated monitoring channel.                                                 |

### Manufacturer source identifiers

|                        |                                                    |
|------------------------|----------------------------------------------------|
| Document title         | 200150, 200155 and 200157 Accelerometers Datasheet |
| Publication / revision | 164986 Rev. Y                                      |
| Manufacturer           | Bently Nevada / Baker Hughes                       |

### APTER POWER SALES TEAM

WHATSAPP / PHONE<br/>+86 180 3023 5313

EMAIL<br/>sales13@apterpower.com

WEBSITE<br/>www.apterpower.com



200150-09-CN