



**Brüel & Kjær Vibro**

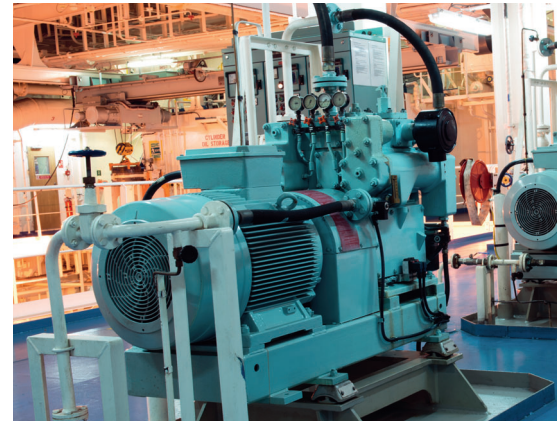
A member of the NSK Group

# Easy and cost-effective protection of small to medium-sized industrial machines

Small and medium-sized industrial machine trains are widely used in many industries. Early fault detection by continuously monitoring case and shaft vibration as well as bearing condition will prevent unplanned downtime and increase machine availability, reduce maintenance and production cost.

Brüel & Kjær Vibro's **VIBROCONTROL 1800 Series of machine protection systems** provides a single platform for all relevant parameters of both rolling-element and fluid-film bearing machines such as case vibration, relative shaft vibration, axial position, speed and process data.\*

Application-based kits including stand-alone machine protection units, cables and sensors are ready for installation. Simply choose the appropriate kit for your application and get started now.



**Forget about complexity:  
Monitor machines with all bearing types with a single system.  
Application-based kits are ready for use!**

Application:

## Compressor Train

### Monitoring kit motor and gearbox:

#### Case vibration

- 4-channel device VIBROCONTROL 1850
- 4 accelerometers
- Sensor cables

#### 6 measurements for each sensor/channel:

- 2x overall vibration (2 frequency bands) for machine protection
- 4 values for rolling-element bearing condition

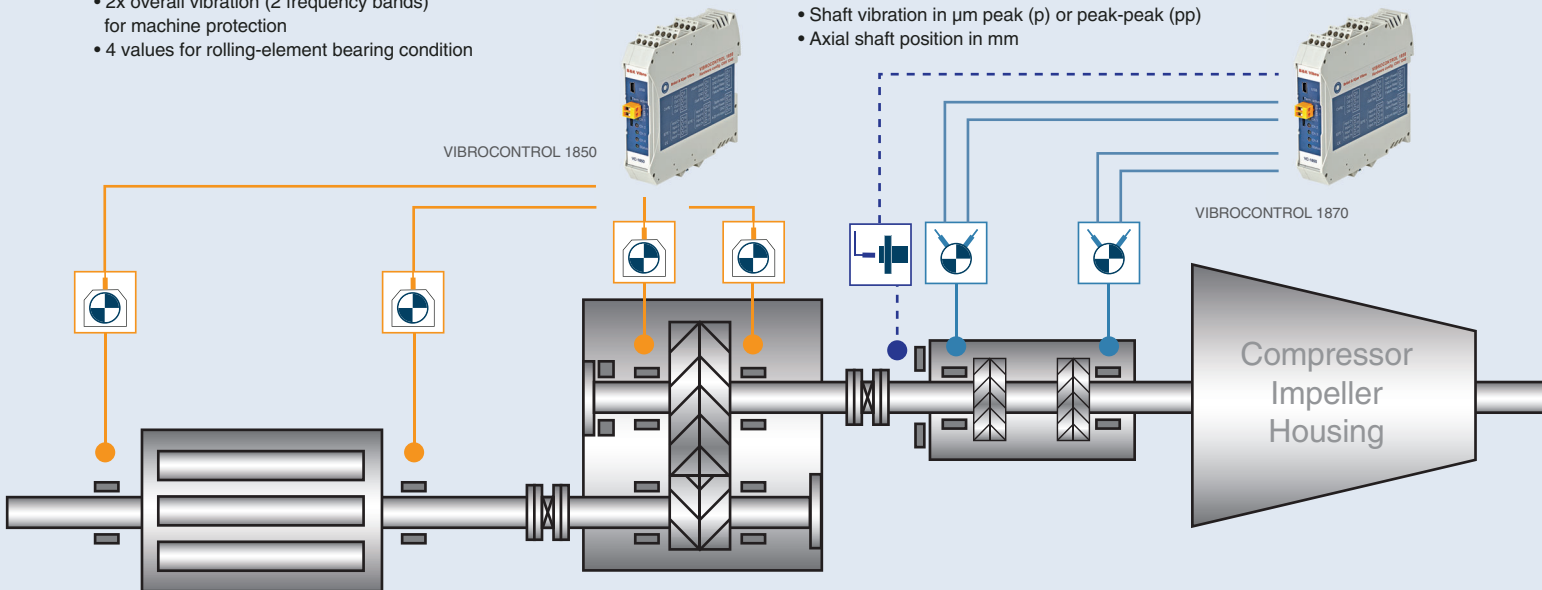
### Monitoring kit compressor:

#### Relative shaft vibration and axial position

- 4-channel device VIBROCONTROL 1870
- 4 displacement sensors
- 1 channel for axial position
- Optional: axial position sensor

#### 6 measurements for each sensor/channel:

- Shaft vibration in  $\mu\text{m}$  peak (p) or peak-peak (pp)
- Axial shaft position in mm



\*The VIBROCONTROL 1800 Series was designed for effective monitoring of smaller to medium-sized machine trains. For larger, more complex critical machine trains, we recommend to use our rack-based system VIBROCONTROL 8000/SETPOINT® to provide full API-conform machine protection and online condition monitoring. For more information, please refer to [www.bkvb.com](http://www.bkvb.com)

# VIBROCONTROL 1850 and VIBROCONTROL 1870

## Technical features:

- 4 real-time vibration channels
- 1 tacho channel
- VIBROCONTROL 1850: 1 process input
- VIBROCONTROL 1870: 1 channel for axial position
- 4 configurable outputs (analog output or relay)
- 1 redundant safety relay (for OK status, danger and alert limits)
- Self-test and alarm inhibit
- Remote access through USB/RS 485
- Digital interface for data transfer and remote access (RS-485, USB, Modbus, OPC)
- The instrument is compliant with ISO 10816-3, ISO 13849-1 (PL-d), CE, EAC, ETL

## SOLUTION KITS: CASE VIBRATION



### Ordering code and delivery scope

#### VIBROCONTROL 1850

2 x AS-063 (sensor)  
2 x AO073-S-0100 (cable MIL 10 m)  
**Ordering code: VC-1850 / AS / 02**

#### VIBROCONTROL 1850

4 x AS-063 (sensor)  
4 x AO073-S-0100 (cable MIL 10 m)  
**Ordering code: VC-1850 / AS / 04**

For hazardous areas:

#### VIBROCONTROL 1850

2 x ASA-063 (sensor)  
2 x EL2075-S-0100 (cable MIL 10 m)  
2 x AC-297 Safety Barrier  
**Ordering code: VC-1850 / ASA / 02**

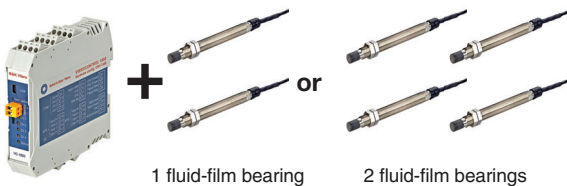
#### VIBROCONTROL 1850

4 x ASA-063 (sensor)  
4 x EL2075-S-0100 (cable MIL 10 m)  
4 x AC-297 Safety Barrier  
**Ordering code: VC-1850 / ASA / 04**

**Note:** For hazardous area applications, safety barriers must be added to each sensor line!



## SOLUTION KITS: RELATIVE SHAFT VIBRATION AND AXIAL POSITION



1 fluid-film bearing

2 fluid-film bearings

X/Y installation for relative shaft vibration measurement

### Ordering code and delivery scope

#### VIBROCONTROL 1870 (IN-081)

2 x IN-81 (5 m)  
**Ordering code: VC-1870 / DS / 02**

#### VIBROCONTROL 1870 (IN-081)

4 x IN-81 (5 m)  
**Ordering code: VC-1870 / DS / 04**

### Option:

#### Axial position measurement

- 1 additional measuring channel is available in each VIBROCONTROL 1870 unit
- Displacement sensors, e.g. IN-081 or INA-081 to be ordered individually

**Note:** Sensor solution for hazardous areas:

- 2 safety barriers must be added to each sensor line
- Displacement sensor type INA-081 can be ordered individually.



In addition to VIBROCONTROL 1850 and VIBROCONTROL 1870, the following extension modules are available (not included in the above kits):

### VIBROCONTROL 1801

Module with 12 additional relays

### VIBROCONTROL 1803/1804

Communication modules, network operation, OPC, Modbus, data storage

### Please contact us for more information:

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