



# Product Specification

## VIBRATION INTERFACE – VI-6080

8x vibration input channels, 3x binary input channels, time series export to Compass 6000 Condition Monitoring System

*The Vibration Interface VI-6080 is used for providing vibration, position, process and speed signals of protection systems to Compass 6000 Condition Monitoring systems.*

### Applications

*The VI-6080 is a vibration interface used for adding condition monitoring functionality to (existing – non VC-6000) machine protection systems. Signals available from buffered outputs are in a simple and reliable way connected to the Compass 6000 Condition Monitoring system. The Compass 6000 system will provide full diagnostic capability based on these interfaced signals.*



### General Description

The features and functions of VI-6080 are briefly listed below.

- Vibration measurements
- Speed measurements
- Axial position measurements
- Process value measurements
- Status (binary) signals
- 100MBit Ethernet
- Standard +24V external power supply
- Homepage for testing and information

### Inputs

- 8x AC/DC input channels – freely configurable with measurements
- 3x binary input channels
- +24V DC power supply

### Measurements

The available measurements depend on configuration – every channel can do every kind of measurement:

- Speed/phase reference
- Bandpass measurements (rms, peak, peak-peak)
- Axial position
- Process values

### Outputs

- Time series export to Compass 6000 over Ethernet.
- Measurement and status value export to Compass 6000 over Ethernet.

Technical Specifications

The specifications given below are specific for the VI-6080.

AC/DC Vibration Sensor Inputs

Input voltage range ..... -24V to +24V

Input frequency range:

- Accelerometer sensor signals ..... 1Hz to 20kHz
- velocity sensor *signals*..... 1Hz to 20kHz
- Displacement sensor signals..... DC to 20kHz
- Process signals ..... DC to 20kHz

**Note:**

*For distances between Buffered Output and Input of VI-6080 larger than 100m (300ft), the maximum frequency is up to 10kHz!*

Sensitivity:

- Accelerometer.....adjustable (e.g. 100mV/g)
- Velocity sensor ..... adjustable (e.g. 100mV/mm/s)
- Displacement sensor .....adjustable (e.g. 8mV/μm)
- Process signals .....adjustable

Housing (DIN rail mounted)

Dimensions (H x W x D) ..... 120 x 42 x 84 mm  
 Protection class ..... IP 20  
 Operating Temperature ..... -5°C to + 65°C

Binary Inputs

Response time ..... < 10ms  
 Minimum current load (non-active signals)..... 1mA

Signal status *LOW*:

Nominal input voltage ..... 0V  
 Input voltage range ..... -5V to 5V

Signal status *HIGH*:

Nominal input voltage ..... +24V  
 Input voltage range ..... 12V to 35V

Power supply – external

Supply voltage for VI-6080 ..... +24V DC -15%/+15%  
 Ripple ..... 60mV pp  
 Temperature range ..... -5°C to + 65°C  
 Power consumption per VI-6080 ..... ≈5W

Approvals

- CE
- C-Tick
- UL in preparation

Accessories

Cabling

- EQ2672 Patch panel for 4 input signals 8x terminal screws to RJ45
- EQ2635 8 Port Giga Bit Switch
- AC-4703 Adapter 4x BNC – RJ45 (Standard for BN 3500 modules)

Power supplies

- EQ2651-01524 +24V / 15W (for EQ2635)
- EQ2651-06024 +24V / 60W (for 6x VI-6080)
- EQ2651-12024 +24V / 120W (6x VI-6080+EQ2635)
- EQ2565 Redundancy module

Installation possibilities

Please refer to the instruction manual for installation guidelines.

## Accuracy

Meas. Name	Frequency Range	Accuracy (25°C,)
AC measurements	1Hz to 20kHz	Max. 0.3mV rms +/- 2% of proper value
DC measurements	DC	Max. 50mV +/- 1% of proper value

*Brüel & Kjær Vibro reserves the right to change specifications without notice*

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