The VIB I/O modules are used for online monitoring of the machine vibration level. It records the two most important parameters required for the condition analysis; vibration severity and roller bearing condition.

The severity of vibration is a measurement of the machine vibration energy and therefore, a suitable indicator for the vibration forces acting on the machine. The ISO 10816-3 standard is used to assess the results in which the effective values of the (measured) vibration are divided into three quality categories.

The roller bearing condition is evaluated on the basis of high-frequency shock impulse signals. Shock impulses are momentary impulses arising from mechanical damage to roller bearings or the bearing surfaces.

Evaluation uses a scale where the measured shock impulses are divided into three bearing condition categories: 'good', 'limited' and 'poor'. By recording the measurement results and evaluation in a trend curve, bearing damage can be detected at an early stage.

A special Tandem-Piezo® acceleration sensor at the same time, provides the measurement of machine vibrations and high-frequency shock impulse signals.

### Description

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack.</th>
<th>Unit</th>
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<tbody>
<tr>
<td>750-645</td>
<td>1</td>
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</table>

#### Technical Data

- **Sensor inputs**: +AI1, -AI1, +AI2, -AI2
- **Number of inputs**: 2
- **Input ranges**:
  - Vibration velocity: 0 - 100 mm/s
  - Shock pulse: -10 ... +80 db
- **No. of outputs**: 2 (Alarm and System ok)
- **Configuration**:
  - Alarm and warning threshold via process image and I/O Check
- **Outputs**:
  - 24 V DC 0.5 A short-circuit protected
- **Current consumption typ. (KBUS)**: 30 mA
- **Voltage via power jumper contacts**: 24 V DC (15 % ... +20 %)
- **Isolation**: 500 V system/supply
- **Wire connection**: CAGE CLAMP®
- **Cross sections**: 0.08 mm² ... 2.5 mm² / AWG 28 ... 14
- **Strip lengths**: 8 ... 9 mm / 0.33 in
- **Weight**: 52 g

### Accessories

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#### Tandem-Piezo sensor

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<th>Pack.</th>
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<tbody>
<tr>
<td>248-501</td>
<td>5</td>
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</tbody>
</table>

#### Miniature WSB Quick marking system

- **plain**: see Section 11
- **with marking**

### Approvals

- **Conformity marking**: CE
- **Korea Certification**: K
- **ANSI/ISA 12.12.01 Class I, Div. 2, Gep. ABCD, T4**
- **TÜV 07 ATEX 554086 X**:
  - I M2 Ex d I Mb
  - II 3 G Ex nA IIC T4 Gc
  - II 3 G Ex tc IIIC T135°C Dc
- **IECEEx TUN 09.0001 X**:
  - Ex d I Mb
  - Ex nA IIC T4 Gc
  - Ex tc IIIC T135°C Dc

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