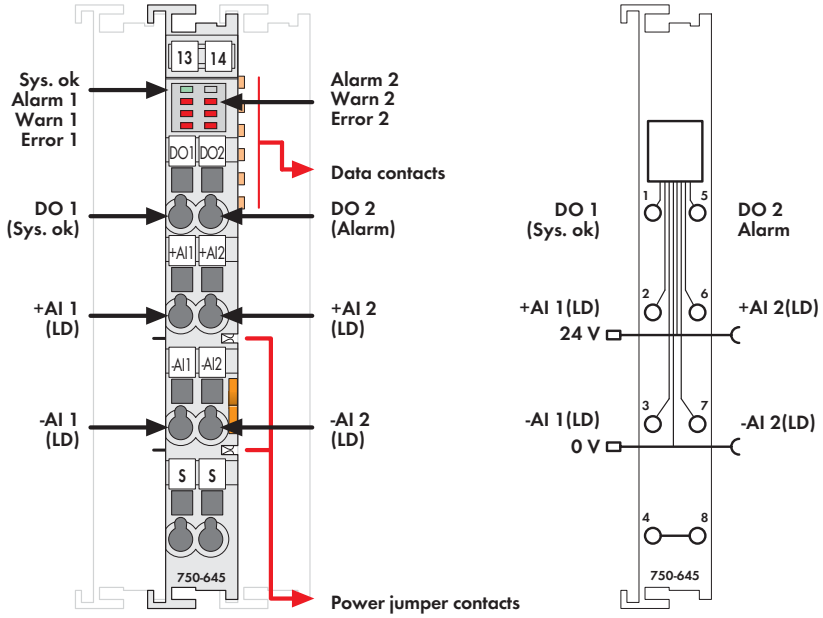
2-Channel Vibration Velocity/Bearing Condition Monitoring VIB I/O



Delivered without miniature WSB markers

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	Item No.	Pack. Unit
2AI/2DO VIB VRMS/SPM Multi	**750-645**	1

Accessories	Item No.	Pack. Unit
Tandem-Piezo sensor	**750-925**	1
Miniature WSB Quick marking system		
plain	**248-501**	5
with marking	see Section 11	

Approvals

Conformity marking	CE
Korea Certification	
cULus UL 508	
cULus ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135°C Dc
IECEx TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135°C Dc

Technical Data

Sensor inputs	+AI1, -AI1, +AI2, -AI2
Number of inputs	2
Input ranges	
Vibration velocity	0 - 100mm/s
Shock pulse	-10 ... +80 db_{SV}
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
Width	12 mm
Weight	52 g
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-3