



EPP3632-0001 | 2-channel interface for Condition Monitoring (IEPE), 16 bit

The EPP3632 EtherCAT P Box is a 2-channel oversampling interface for up to two IEPE sensors with 2-wire connection. The current of the integrated constant current source can be set to 2, 4 or 8 mA separately for each channel depending on the sensor and cable length. The input signal is sampled according to the oversampling principle with up to 50 ksamples per second per channel. The measured values can be correlated to other parts of the system through distributed clocks. Except for filtering, the EPP3632 does not pre-process the vibration amplitude values. This is done by the retrieving controller. The interface can be adapted to application-specific requirements by means of adjustable filters and supply currents. The TC3 Condition Monitoring library offers extensive algorithms for signal evaluation in the controller, enabling full utilisation of the performance and flexibility benefits of the PC platform.

Technical data	EPP3632-0001
Technology	Condition Monitoring/IEPE
Sensor types	IEPE
Connection method	M8, 4-pin, screw type, shielded
Number of inputs	2
Signal voltage	IEPE constant current supply and recording of modulated AC voltage
Sensor state monitoring	yes, through monitoring of the bias voltage
Measuring range	default ± 5 V up to 25 kHz, ± 250 mV up to 10 Hz
Input filter limit frequency	analog parameterisable 5th order low-pass filter up to 25 kHz, typically 0.05 Hz high-pass filter
Measuring error	$< \pm 0.5$ % (DC; relative to full scale value)
Resolution	16 bit (incl. sign)
Nominal voltage	24 V DC (-15 %/+20 %)
Conversion time	20 μ s (max. 50 ksamples/s)
Supply current I _{EXCITE}	typ. 2/4/8 mA (separately configurable for both channels)
Sensor supply	from control voltage U _s
Current consumption	typ. 120 mA
Distributed clocks	yes
Special features	automatic anti-aliasing function, wire breakage detection
Bus interface	2 x M8 socket, shielded, screw type, EtherCAT-P-coded
Electrical isolation	500 V
Weight	approx. 165 g
Operating/storage temperature	-25...+60 °C/-40...+85 °C
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protect. class/installation pos.	IP 65/66/67 (conforms to EN 60529)/variable
Approvals	CE

Accessories	
ZK700x-010x-0xxx	Cables for EtherCAT P: Ultra-fast Communication and Power in One Cable
TF3600	TC3 Condition Monitoring Level 1