

EtherCAT analog input system

16 analog inputs, SE, 16-bit

New!*



MSX-EC-3000-16

16 analog inputs, SE, 16-bit

Voltage or current inputs

Fast distributed data acquisition

8 digital I/O, 24 V, optically isolated



EtherCAT



TWINCAT

*Operating temperature

Features

- Robust standardised metal housing
- Power Save Mode: Reduced power consumption if no acquisition runs

Analog inputs

- 16 single-ended inputs, 16-bit, Phoenix Contact MSTBA connector
- Throughput rate: 5 kHz (fixed)
- Input range: ± 5 V, ± 10 V (16-bit), 0-5 V, 0-10 V (15-bit)
- Current inputs (optional)

Digital I/O

- 4 digital inputs, 4 digital outputs
- 24 V, optically isolated

Acquisition modes

- Untriggered live signal
- Acquisition synchronised with the EtherCAT master

Applications

- Industrial process control, measurement
- Industrial measurement and monitoring
- Process monitoring • Remote diagnosis
- Control of chemical processes • Factory automation

Interfaces

- 2 EtherCAT interfaces
- 24 V supply

Specifications*

Analog inputs

Number/type:	16 single-ended inputs
Architecture:	One 16-channel multiplexer
Resolution:	16-bit, SAR ADC
Relative precision (INL):	± 1 LSB max (ADC)
Optical isolation:	500 V
Input range:	± 5 V, ± 10 V (16-bit), 0-5 V, 0-10 V (15-bit), software-programmable, current inputs (optional)
Throughput rate:	5 kHz (fixed)
Gain:	x1, x2, software-programmable
Common mode rejection:	80 dB min., DC up to 60 Hz (differential amplifier)
Input impedance (PGA):	$10^9 \Omega$ // 10nF relating to GND
Band width (-3 dB):	160 kHz limited through TP filters

Digital inputs

Number of inputs:	4
Nominal voltage:	24 V
Optical isolation:	1000 V (through opto-couplers)
Input voltage:	0-30 V

Digital outputs

Number of outputs:	4
Output type:	Open Collector
Nominal voltage:	24 V
Optical isolation:	1000 V (through opto-couplers)
Supply voltage:	0-30 V

Power supply

Nominal voltage:	24 V
Supply voltage:	18-30 V
Optical isolation:	1000 V
Current consumption at 24 V:	To be defined
Reverse voltage protection	

EMC - Electromagnetic compatibility

The product complies with the European EMC directive. The tests were carried out by a certified EMC laboratory in accordance with the standard DIN EN IEC 61326-1. The limit values as set out by the European EMC directive for an industrial environment are complied with. The respective EMC test report is available on request.

System features

Interface:	EtherCAT
Dimensions:	232 x 121 x 31 mm
Weight:	850 g
Degree of protection:	IP 40
Operating temperature:	-40 °C to +85 °C

Interface connectors

EtherCAT:	2 x RJ45
Voltage supply	
24 VDC input:	1 x 4-pin Phoenix Contact MSTBA connector

Sensor connectors

Analog inputs:	2 x 16-pin Phoenix Contact MSTBA connector
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Ordering information

MSX-EC-3000-16

EtherCAT analog input system, 16 analog inputs, SE, 16-bit. Incl. technical description and software drivers.

* Preliminary product information