



Description

The **EBIS-ENC4** system is the counter interface of the *EBIS IoT product family*. In addition to the standard features of the *EBIS product series*, the **EBIS-ENC4** unit has **3 sin/cos and 1 incremental counter inputs** or **4 incremental counter inputs**. Furthermore to the sensor data acquisition, the system provides a **trigger input** (e.g. for footswitch) or **one output to control an axis (X3 Option)**. Due to the available versions and configuration options, a wide range of different sensors can be used and thus a wide variety of applications can be realized.

Applications

- Automotive industry
- Machine tool industry
- Optical industry
- Wind power plants
- Control technology
- Robotics

EBIS-ENC4

Solid aluminium desktop housing

(optional DIN rail adapter)

Status LEDs



24 V Power Supply

(3-pin. M16 circular male connector)



Ethernet

(Standard RJ45)



X3 Optionen:

- EBIS-ENC4: Trigger input for e.g. footswitch
- EBIS-ENC4(Axis): Output for one axis with external driver
- EBIS-ENC4(Axis-P): Output for one axis with internal driver (up to 3A)

4 x Counter input (sin/cos or incremental)

(9-pin. M23 circular female connector)

General Specifications

Power supply

Nominal voltage	24V DC
Voltage supply	18V - 30V DC
Connector (X1)	3-pin. M16 male connector

Ethernet

IP-Address	192.168.0.17x (configurable)
Connector (X2)	Standard RJ45 connector (optional: IP68)

Housing

Aluminium desktop housing	optional: DIN rail adapter
Dimensions (mm)	224 x 150 x 60

Communication interfaces

TCP/IP	EBIS-Protocol
.NET library	
Web interface	Configuration, Firmware update, etc.
Cloud Support	MQTT, Azure, AWS

Safety features

Status LEDs	Power supply, network status, error
Encryption protocol	TLS

Versions

Type	Description	Order number
EBIS-ENC4(INC)	- ENC1-ENC4 incremental - X3: Trigger-Input for e.g. footswitch	700
EBIS-ENC4(SIN/COS)	- ENC1-ENC3 sin/cos, ENC4 incremental - X3: Trigger-Input for e.g. footswitch	701
EBIS-ENC4(INC/AXIS)	- ENC1-ENC4 incremental - X3: Output for one axis with external driver	702
EBIS-ENC4(SIN/COS/AXIS)	- ENC1-ENC3 sin/cos, ENC4 incremental - X3: Output for one axis with external driver	703
EBIS-ENC4(INC/AXIS-P)	- ENC1-ENC4 incremental - X3: Output for one axis with internal driver (up to 3A)	704
EBIS-ENC4(SIN/COS/AXIS-P)	- ENC1-ENC3 sin/cos, ENC4 incremental - X3: Output for one axis with internal driver (up to 3A)	705

EBIS-ENC4 Specifications ⁽¹⁾

Allgemein

Connectors (ENC1-ENC4)	9-pin. M23 circular female connector
Power supply	5 V / 250 mA (regulated)

Input (ENC4)	1 x incremental counter input with A, B, Z signal
Differential inputs	TIA/EIA-422-B Standard, TTL
Input hysteresis	35 mV typ.
Max. input frequency	32 MHz

"Open Circuit, Short Circuit, and Terminated Fail-Safe design"

ESD	± 15 kV HBM ANSI/JEDEC JS-001 ± 8 kV IEC61000-4-2 Contact Gap Discharge ± 15 kV IEC61000-4-2 Air Gap Discharge
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Sin/Cos counter inputs (ENC1-ENC3)

Inputs	3 x sin/cos counter inputs with A, B, Z signal
Differential inputs	10 mV _{pp} - 1 V _{pp} (9 prog. gain) 11 μA _{pp}
Input hysteresis	5,625° - 9° (depends on interpolation)
Interpolation	1 - 16
Max. input frequency	200 kHz - 3,2 MHz (depends on interpolation)
ESD	2 kV HBM

Incremental inputs (ENC1-ENC3)

Input (ENC1-ENC4)	3 x incremental counter input with A, B, Z signal
Differential inputs	TIA/EIA-422-B Standard, TTL
Input hysteresis	35 mV typ.
Max. input frequency	32 MHz
"Open Circuit, Short Circuit, and Terminated Fail-Safe design"	
ESD	± 15 kV HBM ANSI/JEDEC JS-001 ± 8 kV IEC61000-4-2 Contact Gap Discharge ± 15 kV IEC61000-4-2 Air Gap Discharge

⁽¹⁾ Specification depends on version(sin/cos or incremental)