Eckelmann
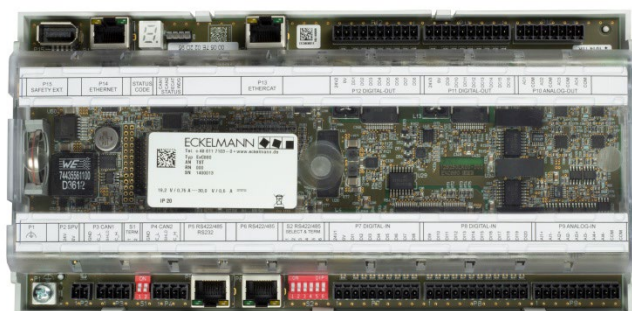
Embedded Controller – E°EXC 880

Special Functional and Performance Features

- All-in-one-solution
  Embedded controller with integrated IO-functions for PLC, motion and NC applications

- PLC programming with CODESYS® V3 according to IEC 61131-3

- NC operating system, DIN programming, up to 32 NC and 64 motion axes according to PLCOpen Part I and II (combinable), 6 simultaneously interpolating axes

- NC kernel with extended instruction set and a lot of technology specific additional functions e.g. reverse travel and restart on the contour, tangential tracking

- 20 digital inputs, 16 digital outputs, 4 analog inputs, 4 analog outputs

- 2 galvanic isolated CAN buses (e.g. for CANopen® drives), termination switchable

- EtherCAT® Master

- OPC UA Server and OPC UA Client for Industry 4.0 connection

- Real-time clock

- Compact design

- Low power consumption

- Programming via RS-232 and Ethernet

- Integrated Web server for web-based visualization

- Also available as an export version (no permit is required due to limitation of 4 simultaneously interpolating axes)

- Optional: memory extension via micro SDHC card slot (up to 32 GByte)

- Optional: prepared for connection of a Safety Controller

Connections for E°EXC880

2 x CAN-Interface

1 x EtherCAT®

3 serial interfaces

Programming interface Ethernet, RS232

Digital inputs and outputs

Analog inputs and outputs

Technical Data

Electrical connection
- Supply voltage — 24 V DC nominal, 19,2 V … 30 V permitted

Interfaces
- CAN1, CAN2 — 2x CANopen® port for external CAN bus devices and connected I/O modules, each port configurable as I/O or drive bus
- EtherCAT® — EtherCAT® Master interface, supports Distributed Clocks
- Ethernet — 1x 100Base-TX, 100 Mbit/s
- Serial interfaces — 1 x RS-232, 2 x RS-485 / RS422 switchable
- Digital inputs and outputs — 20 x Digital In, 24 V, LED status display, polarity reversal protection
  16 x Digital Out, 24 V, 500 mA, LED status display, short circuit protected
- Analog inputs and outputs — 4 x Analog In, -10V … 10V, differential
  4 x Analog Out, -10 V … 10 V, single-ended

Data memory — 256 MByte RAM, 1 MByte CMOS RAM, battery buffered
Program memory — 1 GByte FLASH
Memory extension — Optional: internal slot for micro SDHC card (up to 32 GB)
Programming interface — Ethernet, RS-232 interface with pilot LEDs
Real-time clock — Battery buffered power reserve
Operating monitoring — Outputs are turned off by a watchdog in case of an error

General data
- Dimensions (w x h x d) — 258 x 42 x 128 mm
- Temperature range — Transport/storage: -40 °C to +70 °C
  Operation: +5 °C to +50 °C
- Relative humidity — 10 % to 95 %, non-condensing
- Protection — IP20

Standards and regulations — EC Declaration of Conformity according to
  - 2014/30/EU (EMV Directive)
  - 2011/65/EU (RoHS Directive)
UK Declaration of Conformity according to
  - SI 2016/1091 The Electromagnetic Compatibility Regulations 2016
  - SI 2012/3032 The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012
UL listed: cULus E257496