BUCHER
automation

JetControl 440EXT

Controller



- Supports up to 24 servo axes
- Up to 256 local I/Os (allows for expansion to > 65,000 distributed I/Os)
- 32 MB STX program/data memory
- 480,000 bytes of non-volatile memory
- 1 x Ethernet port with integrated switch
- EtherCAT® (option)
- 2 x CANopen
- 1 x serial interface
- 1 x USB 2.0 (for storage media)
- Web server
- Email client (option)
- Modbus TCP (option)
- OPC UA server (option)
- MQTT (option)
- Programming in STX – a high-level language according to IEC-61131-3
- Multitasking
- File handling
- String processing

Description

The JetControl 440EXT controller offers high performance in a compact design. It is ideally suited for computationally intensive and extensive applications with up to 24 servo axes.

It provides an easy entry into the world of MotionControl. In conjunction with the servo amplifiers of the JetMove 1000/2000/3000 series and the integrated drives of the JMX series, point-to-point axes (PtP), technology axis systems such as cam plates, and even path systems with kinematic transformations, such as a SCARA robot, can be programmed and put into operation in the simplest possible way.

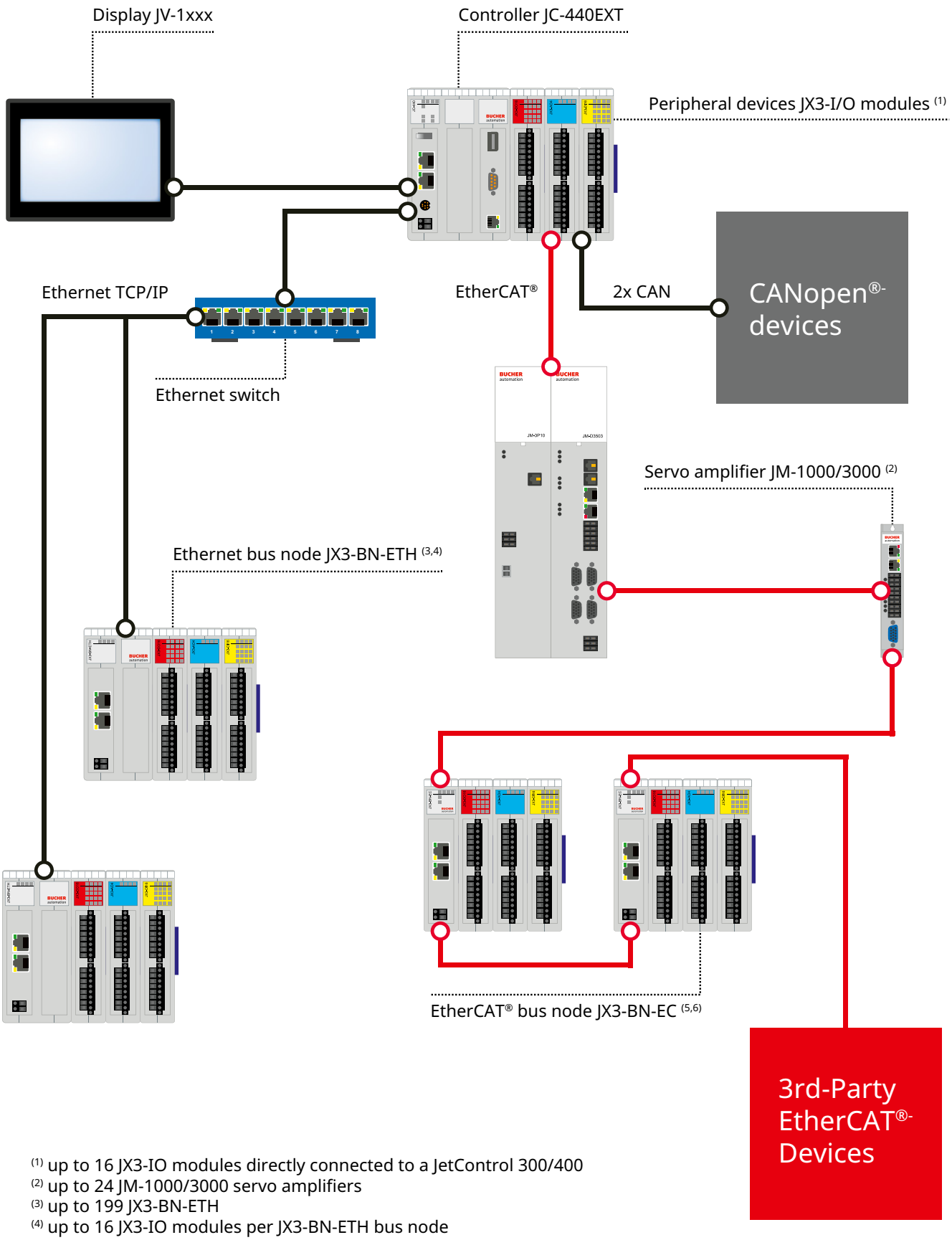
Technical specifications

Non-volatile memory (NVRAM)	480,000 bytes (120,000 registers)
STX program/data memory (SDRAM)	32 MB
Flash drive	32 MB
Number of expansion modules	16 JX3-IO modules local (remote expansion modules are supported)
Number of axes (MCX) (motion control/path control)	24 max.
Ports and interfaces	1 serial port (RS232/422/485)
	1 EtherCAT® (option)
	2 CANopen
	2 Ethernet ports (with integrated switch)
Expansion options	JX3-IO modules, JM-1000/2000/3000, JCF4 options
Real-time clock	Yes
Modbus TCP	Option
Rated input voltage	DC 24 V (-15 % ... +20 %)
Input current	2.3 A with DC 24 V
Dimensions (H x D x W)	approx. 131 x 100 x 75 mm
Degree of protection	IP20
Operating temperature	0 ... +50 °C
Storage temperature	-40 ... +70 °C
Humidity	5 % ... 95 %, non-condensing

Ordering information

Item no.	Designation	Description
10001740	JC-440EXT	JC-440EXT controller, expandable with JCF4 options
10001752	JCF4-C_ETH_(PRIM)	User-programmable Ethernet function
10001744	JCF4-C_ETHERCAT_MASTER	EtherCAT master (BN-EC, JM)
10001751	JCF4-C_FTP_CLIENT	FTP client file dispatch from STX
10001748	JCF4-C_MODBUS/TCP	MODBUS/TCP client+server
10001753	JCF4-C_MQTT	MQTT client
10001747	JCF4-C_OPCUA_SERVER	OPC UA server
10001746	JCF4-C_OPCUA_CLIENT	OPC UA client
10001750	JCF4-C_SMTP	SMTP client (email messaging)
10001741	JCF4-M_AX	1 physical axis (incl. PtP function)
10001743	JCF4-M_PATH	MCX path groups
10001757	JCF4-M_SV1	Software-based positioning function 16 axes via JX3-IO modules
10001742	JCF4-M_TECHNO	MCX technology groups

Note
All options are available as retrofit. When ordering as retrofit, specify the serial number of the JC-440EXT. The options will be activated by installing a license file.



(1) up to 16 JX3-IO modules directly connected to a JetControl 300/400
(2) up to 24 JM-1000/3000 servo amplifiers
(3) up to 199 JX3-BN-ETH
(4) up to 16 JX3-IO modules per JX3-BN-ETH bus node
(5) up to 99 JX3-BN-EC
(6) up to 32 JX3-IO modules can be connected (depending on module type)
(The maximum number of nodes on the EtherCAT® system bus is limited to 127)

Configuration example

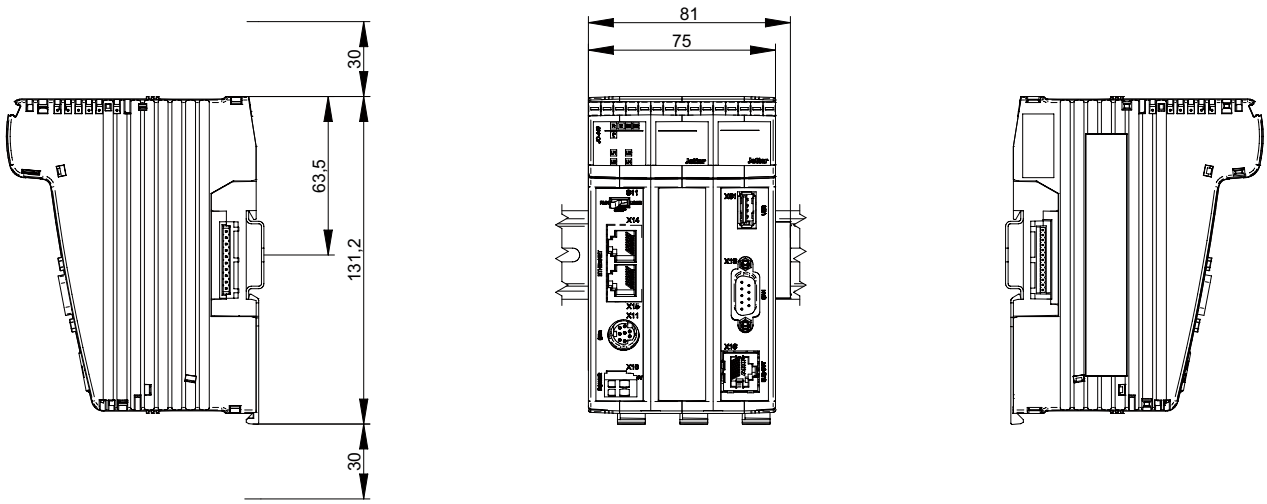
Your application has 4 axes (JM-1000 or JM-3000 servo amplifier). It requires motion control for technology functions (e.g. the cam disk) and you want to make operating data available to other devices via OPC UA.

Required system components:
1 x 10001740 – JC-440EXT
1 x 10001744 – JCF4-C_ETHERCAT_MASTER
1 x 10001742 – JCF4-M_TECHNO
4 x 10001741 – JCF4-M_AX
1 x 10001747 – JCF4-C_OPCUA_SERVER

Configuration aid

The JCF License Configurator supports you with configuring the options for the JC-440EXT.

Dimensional drawing



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Further details and order information are available on request. Specifications are subject to change without notice. Errors and omissions excepted.

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