The solution for your individual drive system

**Fuxx**

Ventura

**Fuxx Pilot**

**Fuxx Control**

**Fuxx Drive**
The motion software Fuxx Pilot is easy to integrate into existing controller concepts and is based on CoDeSys, the hardware-independent IEC 61131-3 programming system under Windows® for creating controller applications. The hardware and software are harmonized throughout to reduce the complex programming workload for drive applications significantly. Sophisticated drive application projects can now be taken on even without expert knowledge.

The programming workload for single- and multi-axis functionalities is reduced thanks to:

- Cam and contouring editors,
- Motion Control Libraries,
- type-specific parameterization and diagnosis programs.

Existing visualization modules support fast commissioning of drives.

Technical data - Ventura IPC

- Scalable processor output (300 MHz - 1 GHz)
- No rotating mass memory
- Fanless operation
- 24 V power supply
- Expansion socket point
- Interfaces: 2 x USB, 2 x Ethernet, 2 x COM, CANopen
- 2 CF card drives or hard disk
- Display connection per DVI
- Short boot times
- Operating systems: Microsoft® Windows® CE.NET/ Microsoft® Windows® XP embedded

Harmonized software tools

Parameterization and diagnosis program

- Simple setting of all controller parameters
- Clearly laid out display of operating parameters, such as speeds, currents, torques, status displays, error messages etc.
- Extensive online help (context-sensitive)
- Automatic user guidance on initial operation
- Graphic display of structures
- Oscilloscope function

Interpolating multi-axis motion

In conjunction with the KUHNKE Ventura IPC, ARS-series drive controllers can execute interpolating multi-axis movements such as cam, contouring control or NC functions.

To do this, position target values are predefined in a fixed time grid. The servo position controller then interpolates the data values between two support points automatically. Communication is normally via the EtherCAT® field bus. PROFINET, CANopen and SERCOS are available as further interfaces.
Compactness
- Smallest dimensions
- Directly alignable
- Full integration of all components for control and output unit, including RS232 and CANopen interface
- Integrated brake chopper
- Integrated EMC filter
- Conforms to current CE and EN standards without additional external measures

Universal motor feedback interface
Integrated universal encoder analysis for the following feedback systems:
- Resolver, high control quality through very high-quality sensors
- Incremental encoder with/without commutating signals, absolute-value device with HIPERFACE, high-resolution Heidenhain incremental encoder, absolute-value device with EnDat

Integrated CANopen interface
- Integrated CANopen interface
- Protocol per CANopen standards DS 301 and DSP 402
- Includes "Interpolated Position Mode" for multi-axis applications

Power range 50 W to 25 kW

Motion Control
- Operating mode as torque, speed or position controller
- Acceleration as optimum-time trapezoid function or as shock-free sinus function
- Speed and angle synchronization

Motor variants
- AC servo motors, synchronous linear and torque motors
- Brushless EC motors
- Direct current motors

Field bus and expansion modules
- CANopen, PROFINET, SERCOS, EtherCAT®
- I/O module, 8/8
- Service memory module

The Fuxx Control servo position controllers are intelligent servo inverters with extensive parameterization and expansion options. They can be flexibly adjusted to numerous applications of various types. Fuxx Control units are drive controllers that can be operated with CoDeSys-supported hardware and software (MC modules and PC tools).

The following are presently supported:
- Fuxx Control 683
- Fuxx Control ARS
- Fuxx Control DIS-2
- Fuxx Control BG* (*in preparation)

Fuxx Control
Drive controller
Fuxx Drive

Motors

The Fuxx Drive servo motors meet the highest demands in terms of dynamics and precision. Different sizes and lengths offer the right torque for almost any application. Implementation of different encoder systems or integrated holding brakes is possible at any time.

All drives that can be operated with CoDeSys-supported hardware and software (MC modules and PC tools) are suitable for Fuxx Custom Drive.

Standard types
- Fuxx Drive BG/EC (small DC motors 24 - 60 V DC)
- Fuxx Drive SH, small servo (24 - 60 V DC)
- Fuxx Drive SH, servo motors (230/400 V AC)

Fuxx Custom Drive
EC motor with special gearbox, maximum torque 120 Nm

Torques from 0.05 to 120 Nm

Small drives/positioning drives
DC/EC motors 24 V DC
- Up to approx. 1 Nm
- CANopen DS 402
- EtherCAT®

Small servo
AC servo motors 24/60 V DC
- Up to approx. 3 Nm
- CANopen DS 402
- PROFIUSB DP
- EtherCAT®

Servo motors
Servo motors 230/400 V AC
- Up to approx. 100 Nm
- CANopen DS 402
- PROFIUSB DP
- EtherCAT®

Innovation for Innovators
Profile sheathing machine with Ventura
L & L Maschinen GmbH, Harsewinkel, Germany

Application example

The Fuxx Drive concept consists of hardware and software. Ventura IPC with the Fuxx Pilot motion software, the Fuxx Control drive controllers and the Fuxx Drive motors, that is motion programming that runs.

Fuxx Pilot

Application example

The slot PLC in the Ventura+, programmed with CoDeSys, controls the world’s first automatic profile sheathing machine. Menus on a Ventura touch-panel in conjunction with a database system guide the user.

Up to 40 axes can quickly and easily be set up by using the Fuxx Drive concept. This method reduces set-up times to a precisely defined and so far unprecedented minimum.

Fuxx Control

Fuxx Drive
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