Kuhnke FIO Controller	Control Technology

Kuhnke FIO Controller 111
Modular CODESYS PLC with integrated I/Os

The Kuhnke FIO Controller 111 with multifunctional I/O interface offers comprehensive input and output functions such as analogue value processing, fast counters or encoder inputs and pulse train outputs (PTO) for cost-optimized control of 2 axes. Thanks to the innovative plug-and-play configuration, the special functions can be configured easily and flexibly.
The modular controller is programmed with CODESYS V3 and can be flexibly expanded with EtherCAT I/O modules from the Kuhnke FIO Line via the E-bus connection on the side.
A µSD card enables local storage of process data and the exchange of control programs.

Features
- Flexible with several communication interfaces
- Configurable I/O channels for several applications
- Plug-n-Play functionality for the I/O configuration
- CODESYS V3 with EtherCAT®

Technical Data	Kuhnke FIO Controller 111
Processor	STM32H7, M7 (480 MHz) + co-processor for high-speed IOs-M4 (240 MHz)
RAM / Remanenter Speicher	32 MB / 8 kB NVRAM
Drive / Mass storage	16 MB Flash, µSD-Card up to 32 GB
Software	RTOS / CODESYS V3 Soft SPS
Interfaces	1 x RS485 or CAN (configurable; not galvanically isolated)
Network	1 x Ethernet 10/100 Mbit – RJ45
Fieldbus interfaces	1 x CANopen® or Modbus RTU Master (via RS485) Modbus TCP Master (via Ethernet) EtherCAT® internal via E-Bus-Interface, external via Extender-Modul
Integrated I/Os	9 x DI 24 V (8 x adjustable filter times, 1 x interrupt-capable) 8 x DO 4 x 24 V 0,5 A (HighSide) / 4 x 24 V 0,2 A (PushPull) 2 x AI 0…10 V, 0/4 …20 mA, 12 Bit 2 x AO 0…10 V, 0/4 …20 mA, 12 Bit special functions (reduce the no. of available digital IOs): 2 x AI 0…10 V, 12 Bit 4 x event counter (200 kHz), 2 x Encoder A-B-Z (100 kHz), 2 x frequency generator (100 kHz) or 4 x PWM (50 kHz) or 2 x PTO axis interface (100 kHz)
Housing (W x H x D	Aluminum, plastic housing 25 x 120 x 90 mm
Mounting	35 mm DIN Rail
Power supply	24 V DC / (19.2 … 28.8)
Power consumption	approx. 3.5 W (@ 24 V DC)
Operating temperature	0 °C …+55 °C
Cyber Security, CRA	In Progress
Approvals / Standards	CE (Industry), cULus, IEC 61131-2, IEC 61000-6-4, IEC 61000-6-2