

Kuhnke FIO MIX 111

EtherCAT®- Multifunctional Bus Terminal

This module series combines many different I/O signals to an intelligent module, saving the limited space in the control cabinet and reducing the variety of modules required in an EtherCAT® system. Under the system name FIO MIX complements the series of highly compact and multifunctional I/O modules the Kuhnke EtherCAT I/O family.

The Kuhnke FIO MIX 111 module provides besides 2 analogue inputs and 2 analogue outputs, each configurable for current and voltage, 12 digital inputs and 8 digital outputs. Thereby defined IOs can also be configured for special functions e.g. 2 event counters, 2 A-B-Z encoder, 4 pulse-train outputs (PTO) or 4 PWM outputs. The configuration in CODESYS is done by pluggable modules with corresponding slots. Each slot thereby represents e.g. one analogue channel or an encoder interface. This procedure bases on "EtherCAT Modular Device Profile".

Integrated functions:

- Functions selectable by using CODESYS V3 libraries
- Signal preprocessing on the module
- Customizing possible



Technical Data

Type	Kuhnke FIO Mix 111	
Order no.	694 444 66	
Integrated I/Os	10 x DI 24 V 0,3 ms (konfigurable filters) 2 x DI / AI 24 V 0,3 ms (konfigurable filters) / 0...10 V, 12 Bit 8 x DO 4 x 24 V 0,5 A / 4 x 24 V 0,25 A 2 x AI 0...10 V, 0/4 ...20 mA, 12 Bit 2 x AO 0...10 V, 0/4 ...20 mA, 12 Bit Integrated functions (reducing the number of available I/Os): 4 x event counter (2 x 32bit, 2 x 16bit, 200kHz), 2 x Encoder A-B-Z (200 kHz), 4 x Timestamp (1µs resolution, 32Bit counting depth) 2 x encoder supply or 2 x frequency generator (100 kHz) or 4 x PWM (50 kHz) or 2 x PTO axis (100 kHz, Step/Dir + opt. PTO enable)	
Specialties	EtherCAT operation in Free RUN or DC-synchronous mode, analogue values provided in physical units	
Power supply	24 VDC (-20% / +25%)	
Fieldbus	EtherCAT® 100 Mbit/s LVDS: E-Bus	
Mounting	35 mm DIN-Rail	
Indication	LED, assigned to the clamping point locally	
Shield connection	Directly at module	
I/O connection	Spring-loaded plug with mechanical ejection	
Ambience conditions	0 °C...+55 °C, IP 20, Interference immunity Zone B acc. EN 61131-2	
Housing (W x H x D)	Aluminium, plastic, 25 x 120 x 90 mm	
Certifications	CE (industry), cULus	

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