

USB-MiniCounter Data

Encoder interface for SinCos / Incremental encoder



USB-MiniCounter

The USB-MiniCounter is especially designed for the exact position recording with linear measuring scales and encoders. Latch inputs and the facility for the parallel evaluation of several transmitter systems allows high-precision positioning in the micrometer range.

Variant

Features

Freely programmable	with the public domain APOSS® win software
I/O functions	reading, setting, interrupt control, latch inputs
Bus and control functions	interrupts on inputs, bus bits, positions, etc., arithmetic and bit handling, conditional branches and loop constructions
Position recording	highly-precise based on parallel evaluation and latch inputs

Electrical data

Logic supply V_c	24 V DC \pm 25%, 180 mA with three connected encoders
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CPU & memory

Microprocessor	TI F28M35H52C2 DSP 150 MHz / ARM 75 MHz
Main and program memory	64 kByte SRAM, 2 x 512 kByte flash, 2 x 32 kByte RAM

Encoder connections

Sine/cosine encoder (Heidenhain 1 Vss interface)	5 V DC \pm 5 %, encoder, max. 300 mA SinCos 0.6 – 1.2 Vss, max. 150 kHz diff, centr. (1.5 v DC, resolution: 1 sine = 256 qc)
Incremental encoder	5 V DC \pm 5 %, encoder, max. 300 mA, max. 5 MHz, RS422 diff. (5 V)

Digital inputs & outputs

	Inputs 1 - 6 can be configured as marker signal for latching the encoder positions.
Digital inputs	6 (low: < 4.6 V / high: > 18 V); max. 40 V, max. 200 kHz
Digital outputs	optional on request

Position latch

Number of position latch register	3
Configuration trigger signals/latch	index signal encoder 1-3 digital inputs 1-6

Interfaces

Serial interface	USB 2.0 (data exchange & visualization)
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Display

LEDs	3 (status)
Display	-

Environmental conditions

Temperature – operation	0...+45°C
Temperature – storage	-20...+85°C
Humidity (not condensing)	20...80%

Mechanical data

Weight	300 g
Dimensions (L x W x H)	180 x 63 x 35 mm
Housing	compact metal housing
Connection technology	DSUB, Molex

Order information

Please contact us:	by phone +41 (0)41 540 50 40 or e-mail info@zub.ch
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Fields of Application

The USB-MiniCounter is designed for the high-precision position recording above all for Heidenhain glass scales. It is used among others for X/Y/Z position recording in measuring systems, robots, analysis, and handling devices.

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