CNT204/x
Counter Modules

The counter module CNT204/x contains 4 counters for single line pulse generators. Two of the channels can optionally be used as inputs for incremental encoders.

Features

- 4 counter inputs for single line pulse generators
- Status indication: LED (green) per counter / initiator input
- 2 input channels for incremental encoders
- Encoder power supply directly from the module via the terminal block
- Inputs can be synchronized
- Monitoring of all supply voltages
- Period measurement with 42 ns resolution
- Differential measurement (phase shift between C1 and C3 or C2 and C4) with 42 ns resolution

Part type designation	Part number
CNT204/H	00010709-10
CNT204/H CC	00016407-10
CNT204/R	00010709-20

CNT204/x

Incremental encoder inputs		
Number	2	
Counter resolution	32 bit	
Input signals	A-, A+, B-, B+, N-, N+	
Signal evaluation	1- / 2- / 4-fold edge evaluation or pulse direction mode	
Maximum input frequency	1 MHz (RS-422) / 300 kHz (HTL)	
Input filter	185 kHz to 6 MHz adjustable, default: 6 MHz	
Counter inputs		
Number	4 (2 if INC inputs are used)	
Counter resolution	32 bit	
Maximum input frequency	20 kHz	
Min. pulse length	25 µs	
Input filter	183 Hz to 46.88 kHz adjustable, disabled by default (fg = 100 kHz)	
Encoder supply	**+5 V**	**+24 V**
Voltage	+5 V	U_{ext} -1 V
Tolerance	±5 %	Like U_{ext}
Max. current/encoder	200 mA	300 mA
Residual ripple	< 150 mV_{ss}	Like U_{ext}
Short-circuit-proof	Yes, permanent	Yes, permanent
External power supply		
Power supply	18 V DC to 34 V DC	
Current consumption	40 mA at 24 V + 1.2 x current consumption of the encoders	
Reverse polarity protection	Yes	
Approvals/Certificates		
General	CE, UKCA, cULus	
Marine	ABS, BV, DNV, KR, LR, NK, RINA	
Environmental conditions	**Standard**	**ColdClimate (❄)**
Operating temperature	-30 °C to +60 °C	
Relative humidity, operation	5 % to 95 % noncondensing	5 % to 95 % with condensation
Storage temperature	-40 °C to +85 °C	
Relative humidity, storage	5 % to 95 % with condensation	
Pollution degree (IEC 60664-1)	2 (noncondensing)	2

Order data

Part type designation	Part number	Description
CNT204/H	00010709-10	Counter module; 2x INC HTL 300 kHz + 2x counter HTL 20 kHz or 4x counter HTL 20 kHz; HTL=24 V; 32 bit; INC A,A/B/N; counter; period; difference, trigger; isolated
CNT204/H CC	00016407-10	Like CNT204/H; ColdClimate (❄)
CNT204/R	00010709-20	Counter module; 2x INC RS-422 1 MHz + 2x counter HTL 20 kHz or 4x counter HTL 20 kHz; HTL = 24 V; 32 bit; INC A,A/B/N; counter; period; difference, trigger; isolated

Accessories

Part type designation	Part number	Description
KZ-CNT204 B	00012057-30	Terminal set Phoenix cage clamp (1x KZ 51/02; 1x KZ 51/12) with labeling strips
SV-CNT204 B	00010869-50	Terminal set Phoenix screw frontside (1x SV 51/02; 1x SV 51/12) with labeling strips