



## 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.

- 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 connectors
- 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

Item	Item-No.
CNT204/ H	00010709-10
CNT204/H CC	00016407-10
CNT204/R	00010709-20

CNT204/x		
<b>Incremental encoder inputs</b>		
Quantity	2	
Counter resolution	32 bit	
Input signals	A-, A+ / B-, B+ / N-, N+	
Signal evaluation	1- / 2- / 4-edge evaluation or pulse direction mode	
Max. input frequency	1 MHz (RS422) / 300 kHz (HTL)	
Input filter	185 kHz to 6 MHz adjustable, default 6 MHz	
<b>Counter inputs</b>		
Quantity	4 (2 if INC inputs are used)	
Counter resolution	32 bit	
max. input frequency	20 kHz	
min. pulse length	25 µs	
Input filter	183 Hz to 46.88 kHz adjustable, default off (fg=100 kHz)	
<b>Encoder power supply</b>		
	+5 V	+24 V
voltage	+5 V	U <sub>ext</sub> -1 V
Tolerance	±5 %	like U <sub>ext</sub>
max. current / encoder	200 mA	300 mA
Ripple	< 150 mV <sub>SS</sub>	like U <sub>ext</sub>
Short circuit proof	Yes, permanent	Yes, permanent
<b>External power supply</b>		
Power supply	18 to 34 VDC	
Current consumption internal	40 mA at 24 V + 1.2x current consumption of the encoders	
Reverse polarity protection	Yes	
<b>Approvals / Certificates</b>		
General	CE, cULus, CCC	
Marine	DNV GL, LR, ABS, BV	
<b>Ambient conditions</b>		
	Standard	ColdClimate (❄)
Operating temperature	-30 to +60 °C	
Rel. humidity operation	5 to 95 % without condensation	5 to 95 % with condensation
Storage temperature	-40 to +85 °C	
Rel. humidity storage	5 to 95 % with condensation	
Pollution degree	2 (without condensation; according to IEC 60664-1)	2 (according to IEC 60664-1)

Order Codes		
Item	Item No.	Description
CNT204/H	00010709-10	Counter module; 2x INC HTL 300kHz + 2x counter HTL 20kHz or 4x counter HTL 20kHz; HTL=24V; 32bit; INC A,A/B/N; position; phase difference; period; trigger; isolated
CNT204/H CC	00016407-10	Like CNT204/H; ColdClimate (❄)
CNT204/R	00010709-20	Counter module; 2x INC RS422 1MHz + 2x counter HTL 20kHz or 4x counter HTL 20kHz; HTL=24V; 32bit; INC A,A/B/N; position; phase difference; period; trigger; isolated
<b>Accessories</b>		
KZ-CNT204 B	00012057-30	Terminal set Phoenix cage clamp (1x KZ 51/02; 1x KZ 51/12) with labeling strip
SV-CNT204 B	00010869-50	Terminal set Phoenix screw frontside (1x SV 51/02; 1x SV 51/12) with labeling strip