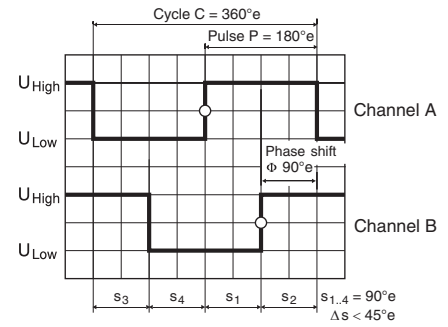
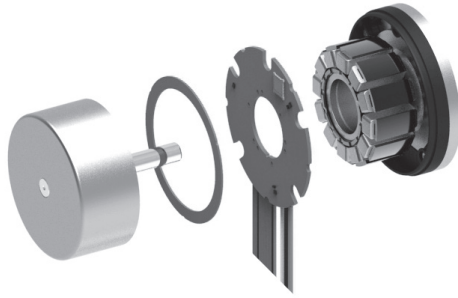


Encoder MILE 512–4096 CPT, 2 Channels, with Line Driver

Integrated into motor



Direction of rotation cw (definition cw p. 150)

- Stock program
- Standard program
- Special program (on request)

Part Numbers

421985	421986	421987	421988
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Type	421985	421986	421987	421988
Counts per turn	512	1024	2048	4096
Number of channels	2	2	2	2
Max. operating frequency (kHz)	500	500	500	500
Max. speed (rpm)	6000	6000	6000	6000



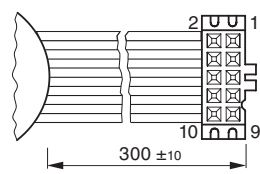
maxon Modular System						Overall length [mm] / ● see Gearhead			
+ Motor	Page	+ Gearhead	Page	+ Brake	Page				
EC 60 flat, IP00	304					39.0	39.0	39.0	39.0
EC 60 flat, IP00	304	GP 52, 4 - 30 Nm	355			●	●	●	●
EC 60 flat, IP54	304					43.0	43.0	43.0	43.0
EC 60 flat, IP54	304	GP 52, 4 - 30 Nm	355			●	●	●	●

Technical Data

Supply voltage V_{CC}	5 V \pm 10%
Output signal	CMOS and TTL compatible
State length s_n (1000 rpm)	90°e \pm <45°e
Signal rise time (typically, at $C_L = 25$ pF, $R_L = 1$ k Ω , 25°C)	100 ns
Signal fall time (typically, at $C_L = 25$ pF, $R_L = 1$ k Ω , 25°C)	100 ns
Operating temperature range	-40...+100°C
Moment of inertia of code wheel	≤ 13 gcm ²
Output current per channel	max. 4 mA
Open collector output of the Hall sensors with integrated pull-up resistor	10 k Ω \pm 20%
Wiring diagram for Hall sensors see p. 37	

Additional information can be found under 'Downloads' in the maxon online shop.

Pin Allocation

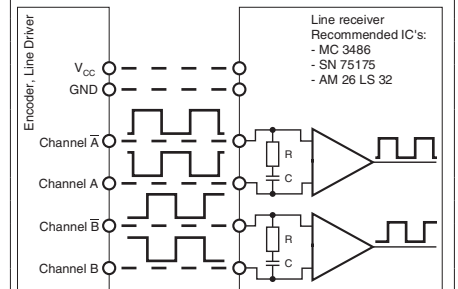


DIN Connector 41651/EN 60603-13 flat ribbon cable AWG 28

- 1 N.C.
- 2 V_{CC}
- 3 GND
- 4 N.C.
- 5 Channel \bar{A}
- 6 Channel A
- 7 Channel \bar{B}
- 8 Channel B
- 9 Do not connect
- 10 Do not connect

Note: Pull-down resistors < 100 k Ω on the encoder outputs are not permitted. Pull-up resistors are permitted, but not required.

Connection example



Opt. terminal resistance R = typical 120 Ω
Capacitor C ≥ 0.1 nF per m line length