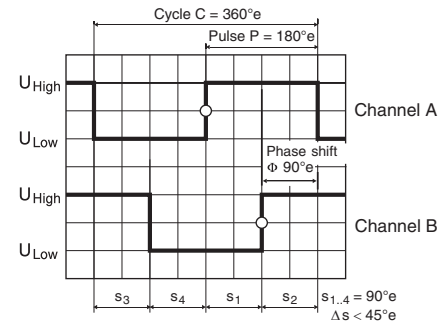
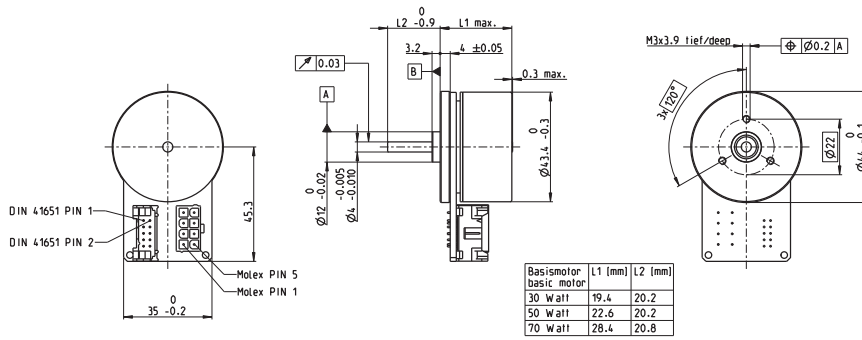


Encoder MILE 256–2048 CPT, 2 Channels, with Line Driver

Integrated into motor



M 1:3

Direction of rotation cw (definition cw p. 150)

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

Article Numbers

462002	462003	462004	462005
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Type	462002	462003	462004	462005
Counts per turn	256	512	1024	2048
Number of channels	2	2	2	2
Max. operating frequency (kHz)	500	500	500	500
Max. speed (rpm)	10000	10000	10000	10000



maxon Modular System

+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length [mm] / ● see Gearhead
EC 45 flat, 30 W	299					19.4 / 19.4 / 19.4 / 19.4
EC 45 flat, 30 W	299	GP 42, 3 - 15 Nm	351			● ● ● ●
EC 45 flat, 30 W	299	GS 45, 0.5 - 2.0 Nm	353			● ● ● ●
EC 45 flat, 50 W	300					22.6 / 22.6 / 22.6 / 22.6
EC 45 flat, 50 W	300	GP 42, 3 - 15 Nm	351			● ● ● ●
EC 45 flat, 50 W	300	GS 45, 0.5 - 2.0 Nm	353			● ● ● ●
EC 45 flat, 70 W	301					28.4 / 28.4 / 28.4 / 28.4
EC 45 flat, 70 W	301	GP 42, 3 - 15 Nm	351			● ● ● ●
EC 45 flat, 70 W	301	GS 45, 0.5 - 2.0 Nm	353			● ● ● ●

Technical Data

Supply voltage V_{CC}	5 V ± 10%
Output signal	CMOS and TTL compatible
State length s_n 90°e (1000 rpm)	45...135°e
Signal rise time (typically, at $C_L = 25$ pF, $R_L = 1$ kΩ, 25°C)	100 ns
Signal fall time (typically, at $C_L = 25$ pF, $R_L = 1$ kΩ, 25°C)	100 ns
Operating temperature range	-40...+100°C
Moment of inertia of code wheel	≤ 3.5 gcm ²
Output current per channel	max. 4 mA
Open collector output of the Hall sensors with integrated pull-up resistor	10 kΩ ± 20%
Wiring diagram for Hall sensors see p. 37	

Pin Allocation

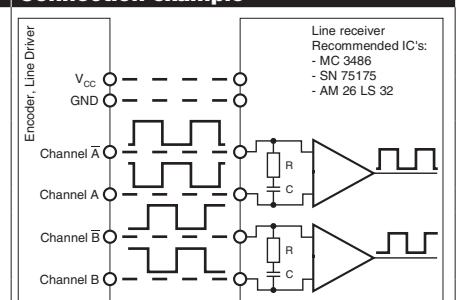
Connection motor	Connection Encoder
Pin 1 Hall sensor 1*	Pin 1 N.C.
Pin 2 Hall sensor 2*	Pin 2 V_{CC}
Pin 3 V_{Hall} 4.5...18 VDC	Pin 3 GND
Pin 4 Motor winding 3	Pin 4 N.C.
Pin 5 Hall sensor 3*	Pin 5 Channel \bar{A}
Pin 6 GND	Pin 6 Channel A
Pin 7 Motor winding 1	Pin 7 Channel \bar{B}
Pin 8 Motor winding 2	Pin 8 Channel B
	Pin 9 Do not connect
	Pin 10 Do not connect

*Internal pull-up (10 kΩ) on pin 3 (V_{Hall})

Connector:
39-28-1083 Molex
DIN 41651/EN 60603-13

Note: Pull-down resistors < 100 kΩ 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