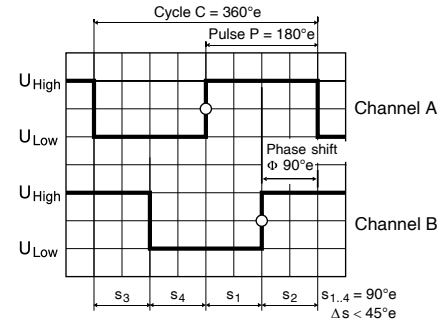
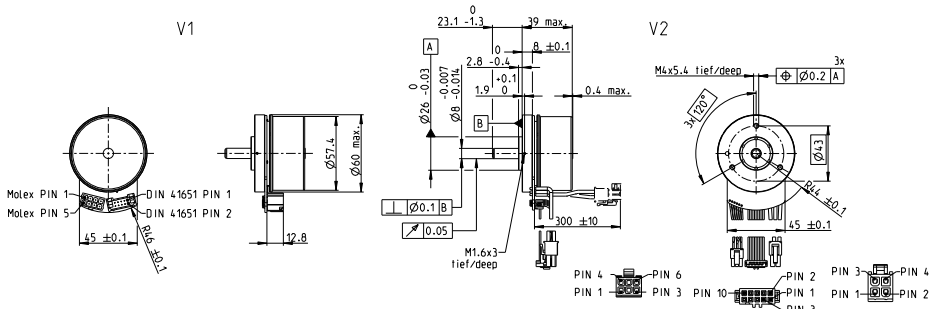


Encoder MILE 512-4096 CPT, 2 Channels, with Line Driver

Integrated into motor

sensor



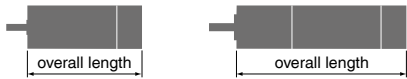
M 1:6

Direction of rotation cw (definition cw p. 68)

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

Part Numbers				
V1 with connector	651156	651163	651166	651168
V2 with cable and connector	421985	421986	421987	421988

Type	Counts per turn	Number of channels	Max. operating frequency (kHz)	Max. speed (rpm)
	512	2	1000	6000
	1024	2	1000	6000
	2048	2	1000	6000
	4096	2	1000	6000



maxon Modular System						Overall length [mm] / • see Gearhead			
+ Motor	Page	+ Gearhead	Page	+ Brake	Page				
EC 60 flat, 100 W	294					39.0	39.0	39.0	39.0
EC 60 flat, 100 W	294	GP 52, 4 - 30 Nm	402			•	•	•	•
EC 60 flat, 150 W	295					39.0	39.0	39.0	39.0
EC 60 flat, 150 W	295	GP 52, 4 - 30 Nm	402			•	•	•	•
EC 60 flat, 200 W	296					46.5	46.5	46.5	46.5
EC 60 flat, 200 W	296	GP 52, 4 - 30 Nm	402			•	•	•	•

Technical Data	Pin Allocation	Connection example
Supply voltage V_{CC} $5 V \pm 10\%$ Typical current draw 15 mA Output signal CMOS compatible State length s_n (1000 rpm) $90^\circ e \pm <45^\circ e$ Signal rise time (typically, at $C_L = 25 pF, R_L = 1 k\Omega, 25^\circ C$) 100 ns Signal fall time (typically, at $C_L = 25 pF, R_L = 1 k\Omega, 25^\circ C$) 100 ns Operating temperature range $-40...+100^\circ C$ Moment of inertia of code wheel $\leq 13 gcm^2$ Output current per channel max. 4 mA Open collector output of the Hall sensors with integrated pull-up resistor $10 k\Omega \pm 20\%$ Wiring diagram for Hall sensors see p. 49	Connection V1 Motor + Sensors Pin 1 Hall sensor 1 Pin 2 Hall sensor 2 Pin 3 $V_{Hall} 4.5...18 VDC$ Pin 4 Motor winding 3 Pin 5 Hall sensor 3 Pin 6 GND Pin 7 Motor winding 1 Pin 8 Motor winding 2 Encoder Pin 1 N.C. Pin 2 V_{CC} Pin 3 GND Pin 4 N.C. Pin 5 Channel A Pin 6 Channel A Pin 7 Channel B Pin 8 Channel B Pin 9 Do not connect Pin 10 Do not connect Pin type: 46015-0806 Molex DIN 41651/EN 60603-13	Connection V2 Sensors (AWG 24) Pin 1 Hall sensor 1 Pin 2 Hall sensor 2 Pin 3 Hall sensor 3 Pin 4 GND Pin 5 $V_{Hall} 4.5...18 VDC$ Pin 6 N.C. Motor (AWG 16) Pin 1 Motor winding 1 Pin 2 Motor winding 2 Pin 3 Motor winding 3 Pin 4 Not connected Encoder (AWG 28) Pin 1 N.C. Pin 2 V_{CC} Pin 3 GND Pin 4 N.C. Pin 5 Channel A Pin 6 Channel A Pin 7 Channel B Pin 8 Channel B Pin 9 Do not connect Pin 10 Do not connect 43025-600 Molex 39-01-2040 Molex DIN 41651/EN 60603-13
Additional information can be found under 'Downloads' in the maxon online shop.		<p>Opt. terminal resistance $R =$ typical 120 Ω Capacitor $C \geq 0.1 nF$ per m line length</p>