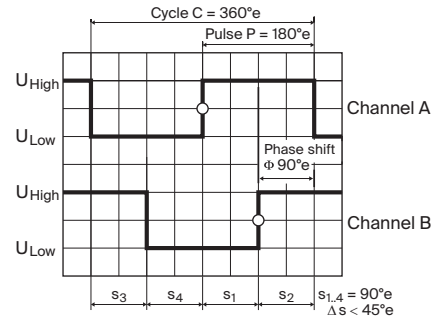
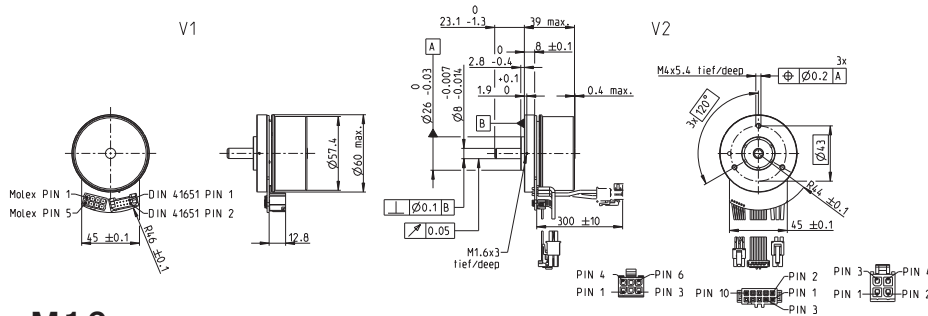


Encoder MILE 512-4096 CPT, 2 channels, with line driver

Integrated into motor

sensor



M 1:6

Direction of rotation cw (definition cw p. 78)

- 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 L1 max. [mm] / ● see Gearhead			
+ Motor	Page	+ Gearhead	Page	+ Brake	Page				
EC 60 flat, 100 W	304					●	●	●	●
EC 60 flat, 100 W	304	GP 52, 4 - 30 Nm	411			●	●	●	●
EC 60 flat, 150 W	305					●	●	●	●
EC 60 flat, 150 W	305	GP 52, 4 - 30 Nm	411			●	●	●	●
EC 60 flat, 200 W	306					●	●	●	●
EC 60 flat, 200 W	306	GP 52, 4 - 30 Nm	411			●	●	●	●

Technical Data	
Supply voltage V_{CC}	5 V ± 10%
Typical current draw	15 mA
Output signal	CMOS compatible
State length s_n (1000 rpm)	90°e ± <45°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	≤ 13 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. 59	

Pin Allocation	
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 28)	
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 18)	
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
Pin type:	
43025-600 Molex	
39-01-2040 Molex	
DIN 41651/EN 60603-13	

