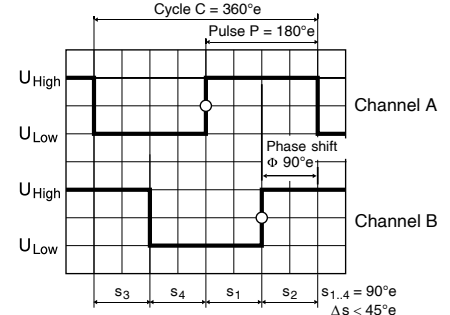
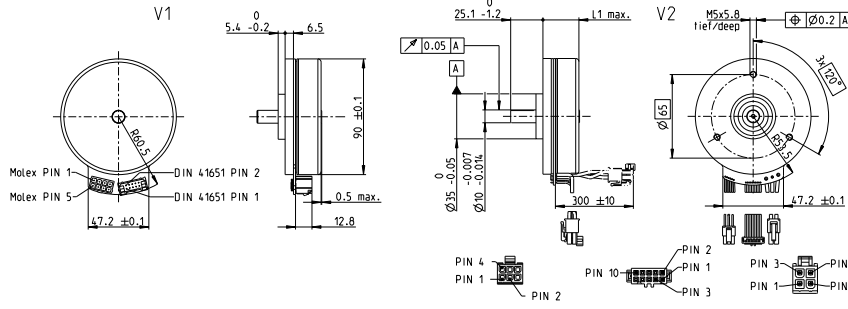


Encoder MILE 512-6400 CPT, 2 channels, with line driver

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	621796	621789	621795	621790	621794	621791	621793	621792
V2 with cable and connector	607517	607510	607516	607511	607515	607512	607514	607513

Type	512	800	1024	1600	2048	3200	4096	6400
Counts per turn	512	800	1024	1600	2048	3200	4096	6400
Number of channels	2	2	2	2	2	2	2	2
Max. operating frequency (kHz)	1000	1000	1000	1000	1000	1000	1000	1000
Max. speed (rpm)	5000	5000	5000	5000	5000	5000	5000	5000



maxon Modular System											
+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length L1 max. [mm] / • see Gearhead					
EC 90 flat, 160 W	307					28.0	28.0	28.0	28.0	28.0	28.0
EC 90 flat, 160 W	307	GP 52, 4.0 - 30.0 Nm	411			•	•	•	•	•	•
EC 90 flat, 220 W	308					28.0	28.0	28.0	28.0	28.0	28.0
EC 90 flat, 220 W	308	GP 52, 4.0 - 30.0 Nm	411			•	•	•	•	•	•
EC 90 flat, 360 W	309					40.5	40.5	40.5	40.5	40.5	40.5
EC 90 flat, 360 W	309	GP 52, 4.0 - 30.0 Nm	411			•	•	•	•	•	•
EC 90 flat, 260 W	310					40.5	40.5	40.5	40.5	40.5	40.5
EC 90 flat, 260 W	310	GP 52, 4.0 - 30.0 Nm	411			•	•	•	•	•	•
EC 90 flat, 400 W	311					40.5	40.5	40.5	40.5	40.5	40.5
EC 90 flat, 400 W	311	GP 52, 4.0 - 30.0 Nm	411			•	•	•	•	•	•
EC 90 flat, 600 W	312					53.0	53.0	53.0	53.0	53.0	53.0
EC 90 flat, 600 W	312	GP 52, 4.0 - 30.0 Nm	411			•	•	•	•	•	•

Technical Data	
Supply voltage V_{CC}	$5 V \pm 10\%$
Typical current draw	15 mA
Output signal driver used:	CMOS compatible
State length s_n (500 rpm)	$90^\circ e \pm < 45^\circ e$
Signal rise and fall times (typically, at $C_L = 25 \text{ pF}$, $R_L = 1 \text{ k}\Omega$, $25^\circ C$)	100 ns
Operating temperature range	$-40...+100^\circ C$
Moment of inertia of code wheel	$\leq 65 \text{ gcm}^2$
Output current per channel	max. 4 mA
Open collector output of the Hall sensors with integrated pull-up resistor	$10 \text{ k}\Omega \pm 20\%$
Wiring diagram for Hall sensors see p. 59	
Additional information can be found under 'Downloads' in the maxon online shop.	

Pin Allocation	
Connection V1	
Motor + Sensors	
Pin 1	Hall sensor 1
Pin 2	Hall sensor 2
Pin 3	V_{Hall} 3.5...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} 3.5...18 VDC
Pin 6	NTC*
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
Pin type:	
43025-0600 Molex	
39-01-2040 Molex	
DIN 41651/EN 60603-13	
*NTC resistance $25^\circ C$: $5 \text{ k}\Omega \pm 1\%$, beta ($25-85^\circ C$): 3490 K	

