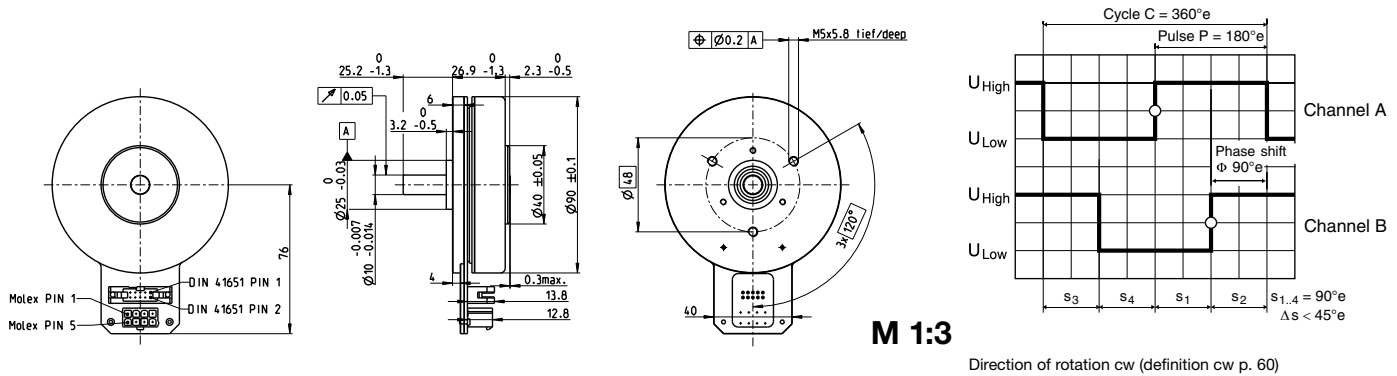


# Encoder MILE 512-6400 CPT, 2 Channels, with Line Driver RS 422

Integrated into motor



M 1:3

Direction of rotation cw (definition cw p. 60)

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

### Part Numbers

453234	409996	453233	411964	453232	411965	453231	411966
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Type	453234	409996	453233	411964	453232	411965	453231	411966
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)	500	500	500	500	500	500	500	500
Max. speed (rpm)	5000	5000	5000	5000	5000	5000	5000	4650



maxon Modular System						Overall length [mm] / ● see Gearhead					
+ Motor	Page	+ Gearhead	Page	+ Brake	Page	29.2	29.2	29.2	29.2	29.2	29.2
EC 90 flat	271					●	●	●	●	●	●
EC 90 flat	271	GP 52, 4 - 30 Nm	351			●	●	●	●	●	●

### Technical Data

Supply voltage $V_{CC}$	$5V \pm 10\%$
Typical current draw	14 mA
Output signal driver used:	EIA Standard RS422 AM26C31QD
State length $s_n$ (500 rpm)	$90^\circ \pm < 45^\circ$
Signal rise and fall times (typically, at $C_L = 120$ pF, $R_L = 100 \Omega$ )	20 ns
Operating temperature range	$-40 \dots +100^\circ C$
Moment of inertia of code wheel	$\leq 65$ gcm <sup>2</sup>
Output current per channel with integrated pull-up resistor	min. -20 mA, max. 20 mA
Wiring diagram for Hall sensors see p. 43	

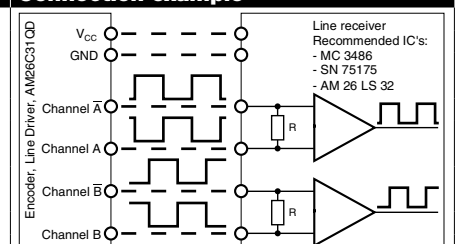
### Pin Allocation

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 A
Pin 6 GND	Pin 6 Channel A
Pin 7 Motor winding 1	Pin 7 Channel 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

### Connection example



Opt. terminal resistance R = typical 120 Ω