Encoder MILE 64 Counts per turn, 3 Channels, with Line Driver

Cycle C = 360°e

Pulse P = 180°e

Phase shift Φ 90°e

$s_{1..4}$ = 90°e
Δs < 45°e
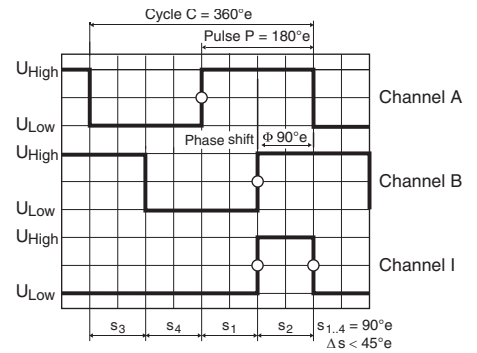
Direction of rotation cw (definition cw p. 70)

Stock program
Standard program
Special program (on request)

Part Numbers

361545

Type

Counts per turn	64	
Number of channels	3	
Max. operating frequency (kHz)	107	
Max. speed (rpm)	100 000	

overall length

overall length

maxon Modular System

+ Motor	Page	+ Gearhead	Page	+ Brake	Page	Overall length [mm] / ● see Gearhead
EC 6, 1.2 W	162					21.7
EC 6, 1.2 W	162	GP 6, 0.002-0.03 Nm	230			●

Technical Data

Supply voltage V_{CC}	5 V ± 10%
Output signal	CMOS and TTL compatible
Phase shift Φ	90°e ± 45°e
Signal rise time (typically, at C_L = 25 pF, R_L = 1 kΩ, 25°C)	10 ns
Signal fall time (typically, at C_L = 25 pF, R_L = 1 kΩ, 25°C)	10 ns
Index pulse width (nominal)	90°e
Operating temperature range	-20…+100°C
Moment of inertia of code wheel	≤ 0.006 gcm²
Output current per channel	max. 4 mA

The index signal I is synchronised with channel A or B.

Pin Allocation
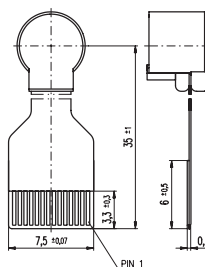
|	
1	V_{CC}
2	Channel A
3	Channel $\overline{A}$
4	Channel B
5	Channel $\overline{B}$
6	Channel I
7	Channel $\overline{I}$
8	Commutation H1
9	Commutation H2
10	Commutation H3
11	GND
12	Motor winding 1
13	Motor winding 2
14	Motor winding 3

PIN 1

Note: Pull-down resistors on the encoder outputs are not permitted. Pull-up resistors are permitted, but not required.

Compatible connector: Molex 0527451497 / Tyco 1-1734839-4
Adapter print EC 6 MILE encoder to terminal strip and DIN 41651 adapter order no. 397973

Pitch 0.5 mm, top contact style.

Connection example

Encoder, Line Driver

V_{CC}
GND
Channel $\overline{A}$
Channel A
Channel $\overline{B}$
Channel B
Channel $\overline{I}$
Channel I

Line receiver
Recommended IC's:
- MC 3486
- SN 75175
- AM 26 LS 32
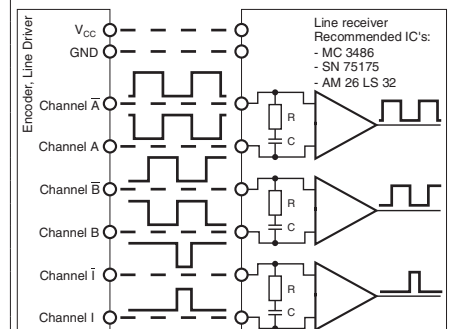
Terminal resistance R = typical 120 Ω
Capacitor C ≥ 0.1 nF per m line length