

# Incremental encoders

Mini series end shaft  $\varnothing 6$  mm

Resolution 360...5120 pulses

## BHK programmable



BHK with end shaft

### Features

- Mini encoder programmable
- Resolution max. 5120 ppr
- Optical sensing
- Programmable via DIP-switch
- Housing  $\varnothing 40$  mm
- End shaft  $\varnothing 6$  mm

### Technical data - electrical ratings

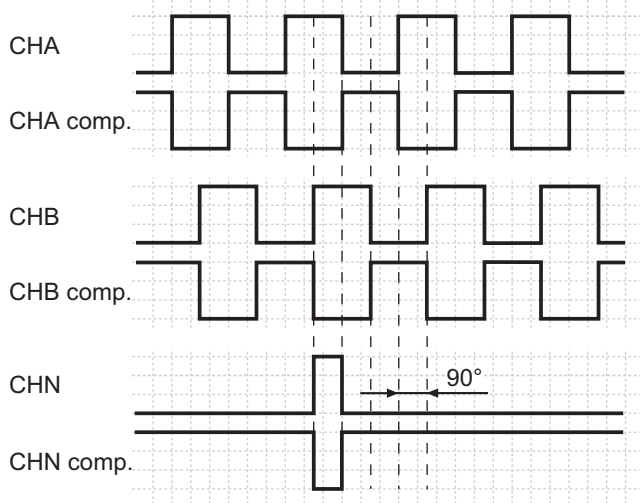
Voltage supply	5 VDC $\pm 10$ % 4.5...30 VDC
Consumption w/o load (typ.)	60 mA (5 VDC) 30 mA (24 VDC)
Resolution (steps/turn)	360...5120
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output signals	A $90^\circ$ B, N + inverted
Output circuit	Linedriver/RS422 Push-pull antivalent, short-circuit proof (HTL)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3

### Technical data - mechanical design

Dimensions (flange)	$\varnothing 40$ mm
Shaft	$\varnothing 6$ mm end shaft
Protection DIN EN 60529	IP 64
Operating speed	$\leq 12000$ rpm (mechanical)
Operating torque typ.	0.0075 Nm (IP 64)
Materials	Housing: aluminium Flange: aluminium
Operating temperature	$-20 \dots +85$ °C
Relative humidity	95 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 10-200 Hz DIN EN 60068-2-27 Shock 50 g, 11 ms
Connection	Connector M12, 8-pin Cable 2 m
Weight approx.	100 g

### Output signals

Counter clockwise rotating direction when looking at the flange.



### Switch setting (DIP switch)

DIP 1	DIP 2	DIP 3	DIP 4	Interpolation
OFF	ON	OFF	ON	1x
ON	ON	OFF	ON	2x
ON	OFF	OFF	ON	3x
OFF	ON	ON	ON	4x
ON	ON	ON	ON	5x
ON	OFF	ON	ON	8x
OFF	ON	ON	OFF	10x *

\* only with pulse number 360 and 500

DIP 5	Rotation
ON	ccw
OFF	cw

Other settings: don't use

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Resolution 360...5120 pulses

BHK programmable

## Part number

BHK 1D.    - **E6** -   

### Connection

- 4 Cable 2 m, axial
- 5 Cable 2 m, radial
- N Connector M12, 8-pin, radial

### Shaft

E6 End shaft  $\varnothing 6$  mm, IP 64

See part number (pulses)

### Voltage supply / signals

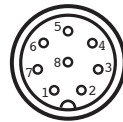
05A 5 VDC / antivalent (TTL compatible)\*

25W 4.5...30 VDC / push-pull antivalent  
short-circuit proof

## Terminal assignment

Connector	Core colour	Signals
Pin 1	white	0 V
Pin 2	brown	+Vs
Pin 3	green	CHA
Pin 4	yellow	CHB
Pin 5	grey	CHN comp.
Pin 6	pink	CHN
Pin 7	blue	CHB comp.
Pin 8	red	CHA comp.

Connector M12 – for connection reference -N



## Part number (pulses)

360 | 500 | 512 | 1024

360 (programmable: 360/720/1080/1440/1800/2880/3600)

500 (programmable: 500/1000/1500/2000/2500/4000/5000)

512 (programmable: 512/1024/1536/2048/2560/4096)

1024 (programmable: 1024/2048/3072/4096/5120)

\* Version antivalent complementary Linedriver RS422 upon request

## Trigger level

### Outputs 05A

Output level High >2.4 V (I = -20 mA)

Output level Low <0.4 V (I = 20 mA)

Load High <20 mA

Load Low <20 mA

### Complementary Linedriver RS422

### Outputs 25W

Output level High >V<sub>cc</sub> -2.6 V (I = 20 mA)

Output level Low <0.5 V (I = -20 mA)

## Dimensions

