

## **Encoders**

optical Encoder, digital outputs, 2 channels, 100 - 500 lines per revolution

For combination with Brushless DC-Motors

## Series HEDS 5500

		HEDS 5500 C	HEDS 5500 A	
Lines per revolution	N	100	500	
Frequency range, up to <sup>1)</sup>	f	100	100	kHz
Signal output, square wave		2		Channels
Supply voltage	UDD	4,5 5,5		V
Current consumption, typical <sup>2)</sup>	<b>I</b> DD	17		mA
Pulse width	Р	180 ± 45		°e
Phase shift, channel A to B	$\Phi$	90 ± 20		°e
Logic state width	5	90 ± 45		°e
Cycle	С	360 ± 5,5		°e
Signal rise/fall time, max. (CLOAD = pF)	tr/tf	0,25 / 0,25		μs
Inertia of code disc	J	0,6		gcm <sup>2</sup>
Operating temperature range		-40 +100		۰C

<sup>1)</sup> Velocity (min<sup>-1</sup>) =  $f(Hz) \ge 60/N$ <sup>2)</sup>  $U_{DD} = 5$  V: with unloaded outputs

For combination with Motor		
Dimensional drawing A	<l1 [mm]<="" td=""><td></td></l1>	
2036 B - K312	56,8	
2057 B - K312	78,3	
2444 B - K312	64,9	
3056 B - K312	76,1	
3564 B - K312	84,1	
4490 B - K312	116,3	
4490 BS - K312	116,3	

## Characteristics

These incremental shaft encoders in combination with the DC-Motors are designed for the indication and control of both shaft velocity and direction of rotation as well as for positioning.

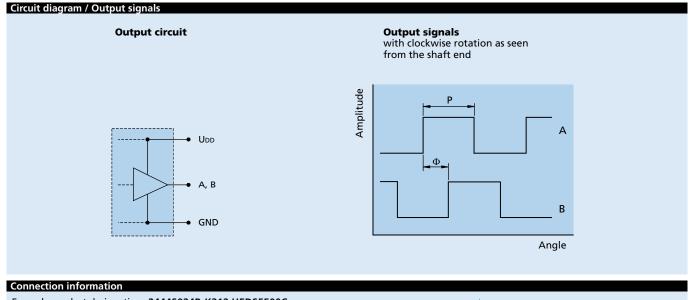
A LED source and lens system transmits collimated light through a low inertia metal disc to give two channels with 90° phase shift. The single 5 volt supply and the two or three channel digital output signals are interfaced with a 5-pin connector.

Motors with ball bearings are recommended for continuous operation at low and high speeds and for elevated radial shaft load.

Details for the Motors and suitable reduction gearheads are on separate catalogue pages.

To view our large range of accessory parts, please refer to the "Accessories" chapter.





Example product designation: 2444S024B-K312 HEDS5500C			Connection Encoder
Option	Туре	Description	
			No. Function
			1 GND
			2 N.C.
			3 Channel A
			4 U <sub>DD</sub> 5 Channel B
			5 Channel B
			0
			1 5
			Recommended connector
			AMP 103686-4/640442-5, Molex 2695/2759, FCI 65039-032/4825x-000

## Dimensional drawing A

