



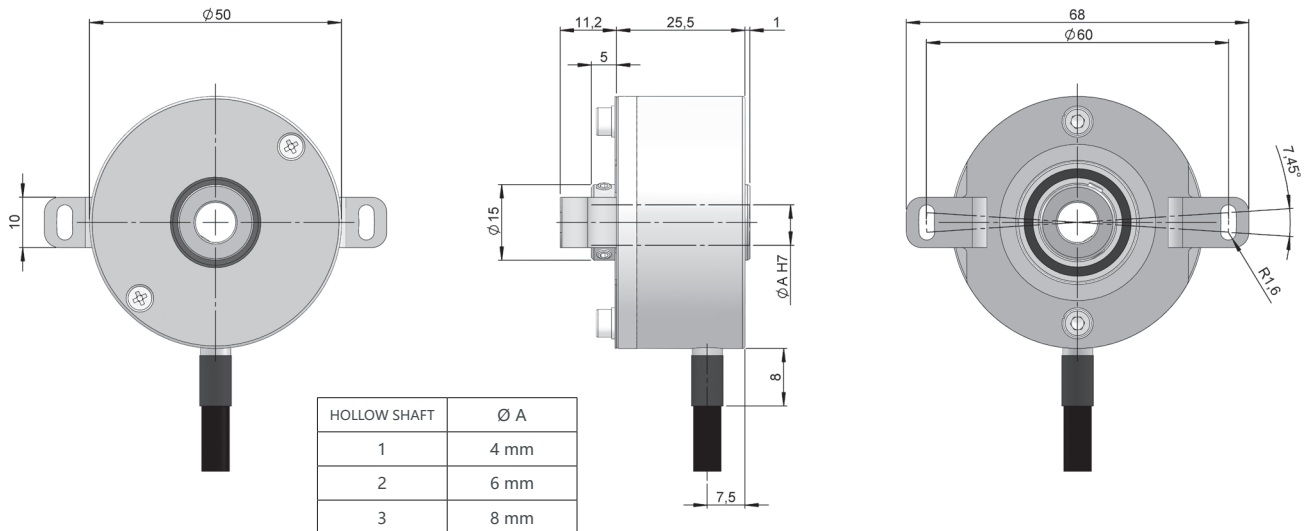
# SERIE 50HC

## COMPACT INCREMENTAL HOLLOW SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

- Resolution up to 32768 pulses per turn
- External diameter 50 mm
- Hollow shaft  $\varnothing$  4, 6 or 8 mm
- Protection class IP54 according to DIN EN 60529
- Anti-rotation system through flexible flange
- Connection by cable (other cable length available)



Optical Encoder	Incremental Encoder	Compact	Vibration and shock resistant	IP54	Temperature range	Express Delivery



Drawing anti-rotation system type 1, hollow shaft type 1

### REFERENCE

Reference example: 50HC-12112-16384

Serie	Anti-rotation system	Hollow shaft	Output signals	Connection	Power Supply / Electronic output	Pulses number	Special customer
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	1. Flexible flange (93.0102129) (*)	1. $\varnothing$ 4 mm 2. $\varnothing$ 6 mm 3. $\varnothing$ 8 mm	1. ABZ, $\overline{ABZ}$ 2. AB, $\overline{AB}$	1. Radial cable	1. 11...30 VDC / Line driver differential Push-Pull 11...30 VDC 2. 5 VDC / RS422 5 VDC (compatible TTL) 6. 11...30 VDC / RS422 5 VDC (compatible TTL) 7. 5...30 VDC / Line driver differential Push-Pull 5...30 VDC	(**)	

**Order your reference**  
**Step file 3D**

[info@encoderhohner.com](mailto:info@encoderhohner.com)  
service available in 24 h

(\*) Anti-rotation system type 1 (Flexible flange 93.0102129) supplied assembled.  
(\*\*) 1024, 2048, 4096, 8192, 16384, 32768.



# SERIE 50HC

## COMPACT INCREMENTAL HOLLOW SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

### MECHANICAL SPECIFICATIONS

Materials	Cover: Aluminium Housing: Aluminium Shaft: Stainless Steel
Bearings	Ballraces
Bearings lifetime	1x10 <sup>10</sup> rev.
Housing fixing	Flexible flange
Shaft fixing	Frontal setscrews
Hollow shaft diameter	4, 6, or 8 mm
Maximum number of revolutions permitted mechanically	6000 rpm
Protection against dust and splashes according to DIN EN 60529	IP54
Rotor inertia moment	30 gcm <sup>2</sup>
Starting torque at 20°C (68°F)	≤ 0,02 Nm
Maximum load permitted on axial shaft	20 N
Maximum load permitted on radial shaft	40 N
Weight aprox.	0,5 Kg
Operating temperature range	-40°C to +85°C - Standard
Vibration according to DIN EN 60068-2-6	100 m/s <sup>2</sup> (10Hz...2000Hz)
Shock according to DIN EN 60068-2-27	1000 m/s <sup>2</sup> (6ms) [ > 1.024 ppr ]
Maximum pulses per turn	32768
Radial connection	2 meters cable (other cable lengths available or connector mounted at the end of the cable, upon request)

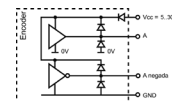
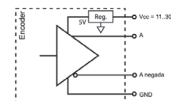
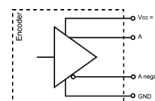
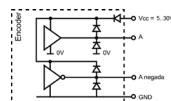
### CONNECTION



	Cable (*)
	8x0,14 95.0008052
GND	White (WH)
+UB	Brown (BN)
A	Green (GN)
B	Grey (GY)
$\bar{A}$	Yellow (YE)
$\bar{B}$	Pink (PK)
Z	Blue (BU)
$\bar{Z}$	Red (RD)

(\*) For lengths over 2 meters standard cable, we recommend the use of twisted pair cable 2x2x0.14+1x0.14 (95.0008002) or 3x2x0.14+2x0.34 (95.0008003). Request the final cable length required to avoid junctions.

### OUTPUT SIGNALS



OUTPUT CIRCUIT	Push-Pull Differential	RS422 (TTL compatible)	RS422 (TTL compatible)	Push-Pull Differential
Reference code	1	2	6	7
Power supply	11...30 VDC	5 VDC ±5%	11...30 VDC	5...30 VDC
Output voltage	11...30 VDC	5 VDC	5 VDC	5...30 VDC
Consumption	Typical: 45 mA Max: 150 mA	Typical: 70 mA Max: 150 mA	Typical: 80 mA Max: 160 mA	Typical: 70 mA Max: 150 mA
Max. load capability / channel	±30 mA	±20 mA	±20 mA	±30 mA
“Low” signal level	VOL < 2.5 VDC	VOL < 0.5 VDC	VOL < 0.5 VDC	VOL < 2.5 VDC
“High” signal level	VOH > VCC – 3 VDC	VOH > 2.5 VDC	VOH > 2.5 VDC	VOH > VCC – 3 VDC
Frequency	300 kHz	300 kHz	300 kHz	300 kHz
Short circuit protection	Yes	Yes	Yes	Yes
Protection polarity inversion	Yes	Yes	Yes	Yes

Channel B leads (90° electric) channel A, view from the shaft, shaft rotating clockwise