



# SERIE 22M

## BLIND HOLLOW SHAFT MAGNETIC INCREMENTAL ENCODER FOR INDUSTRIAL APPLICATIONS

- Resolution up to 512 pulses per turn
- External diameter 36,5 mm
- Blind hollow shaft  $\varnothing$  10 or 12 mm
- Protection IP65 according to DIN EN 60529
- Anti-rotation system through pin torque support
- Connection by cable (other cable length available)



Magnetic Encoder



Incremental Encoder



Miniature Encoder



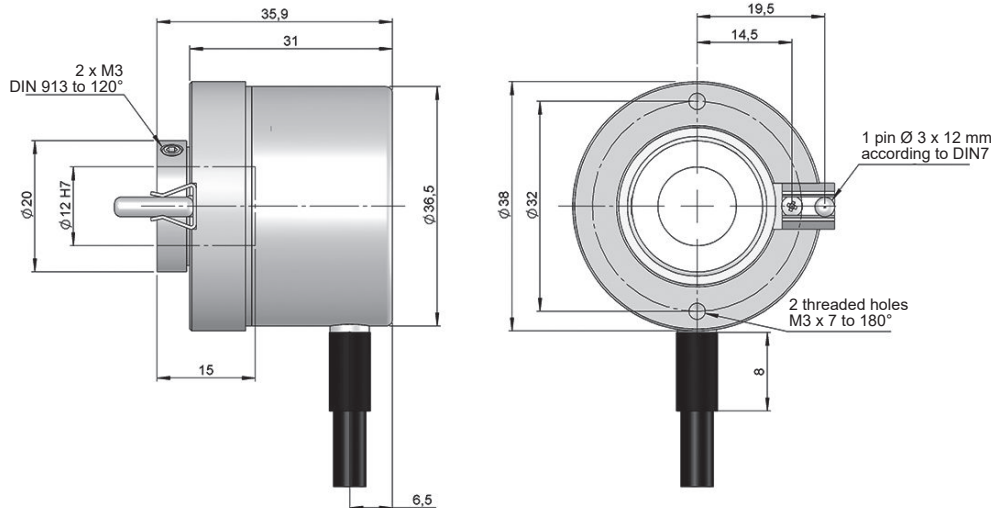
Vibration and shock resistant



IP 65



Express Delivery



Drawing blind hollow shaft type 2, connection type 2, anti-rotation system type 2 (pin included)

### REFERENCE

Reference example: 22M-24321-512

Serie	Anti-rotation system	Blind-Hollow shaft	Output signals	Connection	Power Supply / Electronic output	Pulses number	Special customer
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	2. Anti-rotation pin (93.0108204)	3. $\varnothing$ 10 mm 4. $\varnothing$ 12 mm	2. A+B 3. A+B+0 7. AA+BB+00	1. Axial cable 2. Radial cable	1. 11...30 VDC / Line driver differential Push-Pull 11...30 VDC 2. 5 VDC / RS422 5 VDC (compatible TTL)	32, 64, 128, 256, 512	

(\*) Anti-rotation system type 2 (Anti-rotation pin 93.0108204) supplied assembled.

Order your reference  
Step file 3D

info@encoderhohner.com  
service available in 24 h



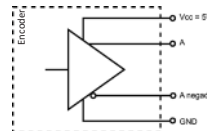
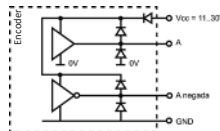
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### MECHANICAL SPECIFICATIONS

Materials	Cover: Aluminium Housing: Aluminium Shaft: Stainless Steel
Bearings	Ballraces
Bearings lifetime	1x10 <sup>10</sup> rev.
Housing fixing	Anti-rotation pin (included)
Blind hollow shaft diameter	10 or 12 mm
Maximum number of revolutions permitted mechanically	6000 rpm
Protection against dust and splashes according to DIN EN 60529	IP65
Rotor inertia moment	20 gcm <sup>2</sup>
Starting torque at 20°C (68°F)	Max. 2 Ncm
Maximum load permitted on axial shaft	40 N
Maximum load permitted on radial shaft	60 N
Weight aprox.	0,1 Kg
Operating temperature range	-20°C to +85°C
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)
Number of pulses per turn	32, 64, 128, 256, 512
Axial or radial connection	2 meters cable (other cable lengths available or connector mounted at the end of the cable, upon request)

### OUTPUT SIGNALS



OUTPUT CIRCUIT	Push-Pull Differential	RS422 (TTL compatible)
Reference code	1	2
Power supply	11...30 VDC	5 VDC ±5%
Output voltage	11...30 VDC	5 VDC
Consumption	Typical: 45 mA Max: 150 mA	Typical: 70 mA Max: 150 mA
Max. load capability / channel	±30 mA	±20 mA
Length of cable allowed	100 m	1200 m
"Low" signal level	VOL < 2.5 VDC	VOL < 0.5 VDC
"High" signal level	VOH > Vcc - 3 VDC	VOH > 2.5 VDC
Frequency	200 KHz	300 KHz
Short circuit protection	Yes	Yes
Protection polarity inversion	Yes	No

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

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### CONNECTION



	Cable 5x0,14 95.0008051 (*)	Cable 8x0,14 95.0008052 (*)
GND	White	White
VCC	Brown	Brown
A	Green	Green
B	Yellow	Grey
$\tilde{A}$		Yellow
$\tilde{B}$		Pink
0 (reference)	Grey	Blue
$\tilde{0}$	Grey	Red

(\*) 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.