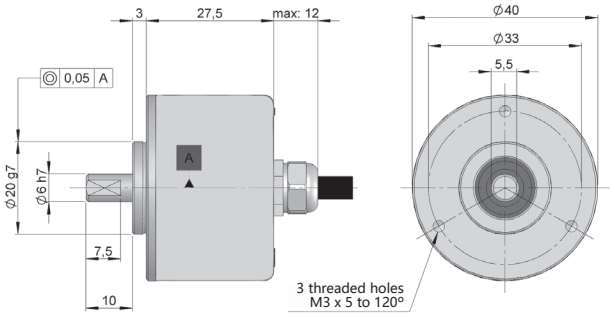
SERIE 21

INCREMENTAL SOLID SHAFT ENCODER COST OPTIMIZED FOR INDUSTRIAL APPLICATIONS

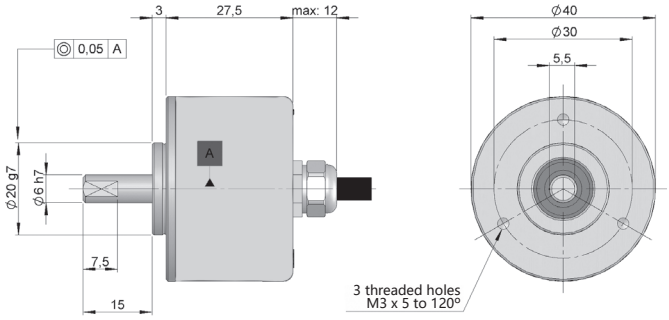
- Resolution up to 500 pulses per turn
- External diameter 40 mm
- Shaft Ø 6 mm
- Protection class IP41 according to DIN EN 60529
- Connection by cable (other cable length available)

Optical Encoder | Incremental Encoder | Vibration and shock resistant | IP41 | Express Delivery

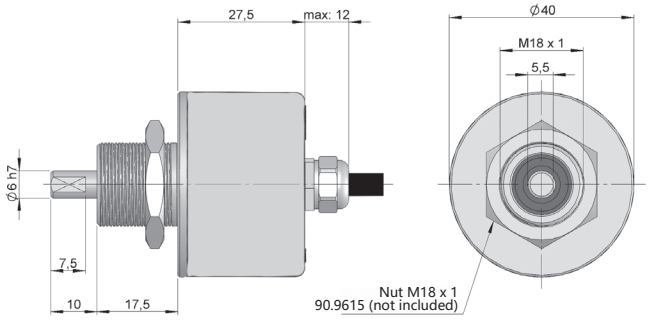
Option A



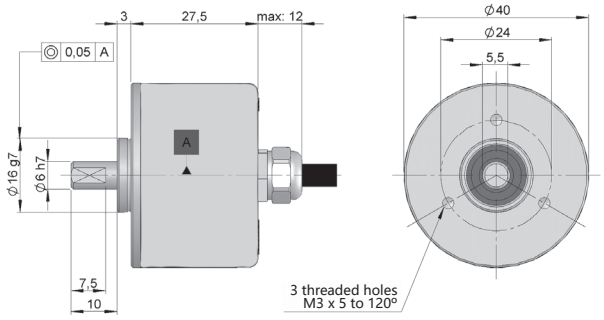
Option B



Option C



Option D



REFERENCE

Reference example: 21-111-500

Serie	Mechanical option	Output signals	Power Supply / Electronic output	Pulses number	Special customer
21 -	☐	☐	☐ -	☐☐☐	.☐☐☐☐
	1. Option A **2.** Option B **3.** Option C **4.** Option D	**1.** A **2.** AB **3.** ABZ **4.** AB, $\overline{Z}$	**0.** 11...30 VDC / NPN Open collector 11..30 VDC **1.** 11...30 VDC / Push-Pull 11..30 VDC **7.** 5 VDC / RS422 5 VDC (compatible TTL) **9.** 11..30 VDC / Line driver differential Push-Pull 11..30 VDC		

Order your reference Step file 3D

info@encoderhohner.com

service available in 24 h

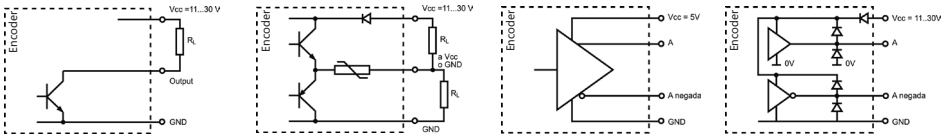
SERIE 21

INCREMENTAL SOLID SHAFT ENCODER COST OPTIMIZED FOR INDUSTRIAL APPLICATIONS

MECHANICAL SPECIFICATIONS

Materials	Cover: Aluminium Housing: Aluminium Shaft: Stainless Steel
Bearings	Ballraces
Bearings lifetime	1x10^{10} rev.
Maximum number of revolutions permitted mechanically	5000 rpm
Protection against dust and splashes according to DIN EN 60529	IP41
Rotor inertia moment	10 gcm²
Starting torque at 20°C (68°F)	≤ 0.004 Nm
Maximum load permitted on axial shaft	5 N
Maximum load permitted on radial shaft	5 N
Weight aprox.	0.2 Kg
Operating temperature range	-20°C to +60°C
Vibration according to DIN EN 60068-2-6	100 m/s² (10Hz...2000Hz)
Shock according to DIN EN 60068-2-27	1000 m/s² (6ms)
Maximum pulses per turn	500
Axial connection	1 meter cable (other cable lengths available or connector mounted at the end of the cable, upon request)

OUTPUT SIGNALS



OUTPUT CIRCUIT	**NPN Open Collector**	**Push-Pull**	**RS422 (TTL compatible)**	**Push-Pull Differential**
Reference code	0	1	7	9
Power supply	11...30 VDC	11...30 VDC	5 VDC ±10%	11...30 VDC
Output voltage	11...30 VDC	11...30 VDC	5 VDC	11...30 VDC
Consumption	40 mA	Tipical: 45 mA Max: 150 mA	Tipical: 70 mA Max: 150 mA	Tipical: 45 mA Max: 150 mA
Max. load capability / channel	40 mA	±30 mA	±20 mA	±30 mA
Length of cable allowed	50 m (24 VDC)	50 m	1200 m	100 m
´´Low´´ signal level	VOL < 0.4 VDC (24 VDC)	VOL < 2.5 VDC	VOL < 0.5 VDC	VOL < 2.5 VDC
´´High´´ signal level	VOH > 22 VDC (24 VDC)	VOH > Vcc – 3 VDC	VOH > 2.5 VDC	VOH > VCC – 3 VDC
Frequency	100 kHz	200 kHz	300 kHz	200 kHz
Short circuit protection	Not permanent	Yes	Yes	Yes
Protection polarity inversion	Yes	Yes	No	Yes

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

SERIE 21

INCREMENTAL SOLID SHAFT ENCODER COST OPTIMIZED FOR INDUSTRIAL APPLICATIONS

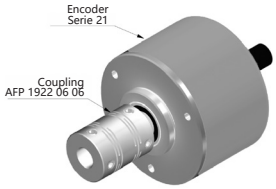
CONNECTION

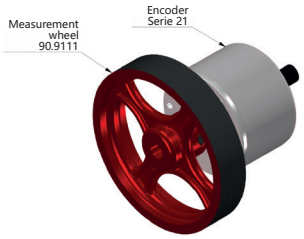
	Cable 2x2x0.14+1x0.14 95.0008002
GND	Yellow (YE)
+UB	White (WH)
A	Brown (BN)
B	Green (GN)
$\overline{A}$	-
$\overline{B}$	-
Z	Grey (GY) (*)
$\overline{Z}$	Grey (GY) (**)

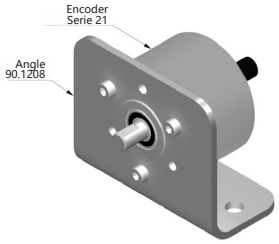
(*) Only available for Output signals option 3 (ABZ).

(**) Only available for Output signals option 4 (AB, $\overline{Z}$).

ACCESSORIES EXAMPLES







All the accessories available in the section ´´MOUNTING ACCESSORIES´´.