



Image with Expanding coupling 90.1101

SERIE 64S

CONIC SHAFT INCREMENTAL ENCODER FOR INDUSTRIAL APPLICATIONS

 SIN/COS

- Resolution 2.048 SIN/COS per turn
- External diameter 58 mm
- Conic shaft 1:10
- Protection class IP54 according to DIN EN 60529
- Anti-rotation system through flexible flange, pin torque support or expanding coupling
- Connection by cable (other cable length available)



Optical Encoder



Incremental Encoder



High shaft load capacity



Vibration and shock resistant



IP54

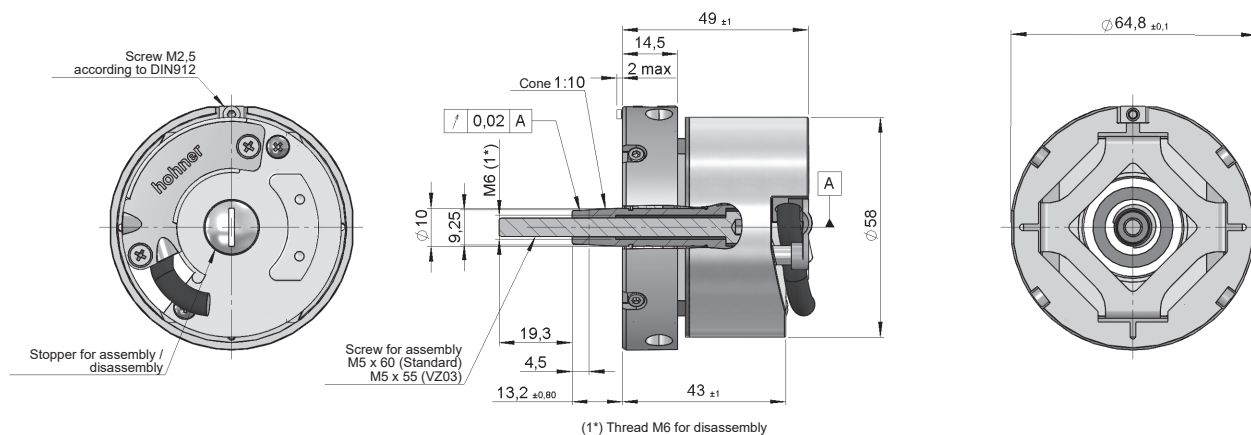


SIN/COS



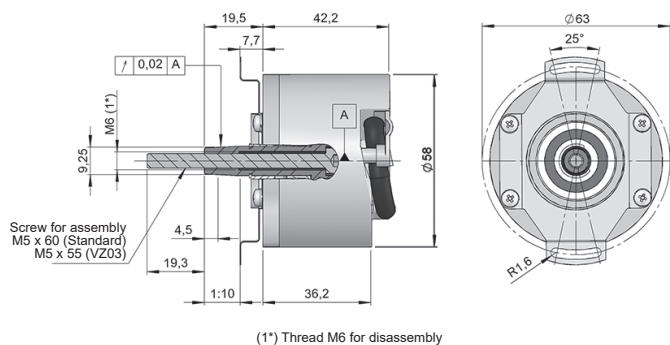
Express Delivery

Expanding coupling (90.1101)



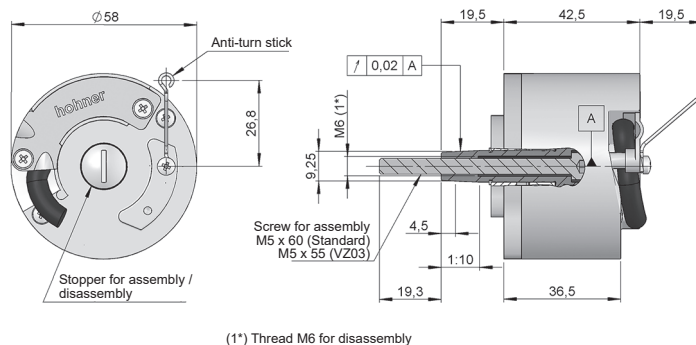
Drawing conic shaft 1:10, anti-rotation system type 0, connection type 1

Flexible flange (90.1027)



Drawing conic shaft 1:10, anti-rotation system type 1, connection type 1

Anti-turn stick (90.1041)



Drawing conic shaft 1:10, anti-rotation system type 2, connection type 1



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SIN/COS

REFERENCE							Reference example: 64S-10117-2048
Serie	Shaft	Anti-rotation system	Output signals	Connection	Power Supply / Electronic output	Pulses number	Special customer
64S -	☐	☐	☐	☐	☐ -	2 0 4 8	
	1. Conic 1:10	0. Expanding coupling 90.1101 1. Flexible flange 90.1027 2. Anti-turn stick 90.1041 3. None (*)	1. $\tilde{A}\tilde{A}+\tilde{B}\tilde{B}+0\tilde{0}$ 2. $\tilde{A}\tilde{A}+\tilde{B}\tilde{B}$	1. Helicoidal cable	7. 5 VDC / SIN-COS 1 Vpp 5 VDC		VZ03. Screw for assembly M5x55 95.0004099

Order your reference
Step file 3D

info@encoderhohner.com
service available in 24 h

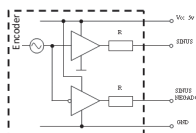
(*) Anti-rotation system type 0 (Expanding coupling 90.1101) and 1 (Flexible flange 90.1027) supplied assembled.
Anti-rotation system type 2 (Anti-turn stick 90.1041) supplied disassembled and includes the screws required for assembly.
Other required anti-rotation systems are not supplied assembled. All systems available in the sections "MOUNTING ACCESSORIES".

 Assembly and disassembly instruction manual available in:
www.encoderhohner.com/product/serie-64-sincos/

MECHANICAL SPECIFICATIONS

Materials	Housing: Aluminium Flange: Aluminium Shaft: Stainless Steel
Bearings	Ballraces
Bearings lifetime	1x10 ¹⁰ rev.
Housing fixing	Expanding coupling 90.1101 (assembled) Flexible flange 90.1027 (assembled) Anti-turn stick 90.1041 (self-assembly kit included)
Permitted misalignment	±0.5 mm axial (90.1101) ±0.5 mm axial, ±0.3 mm radial (90.1027, 90.1041)
Maximum number of revolutions permitted mechanically	6000 rpm
Protection against dust and splashes according to DIN EN 60529	IP54
Rotor inertia moment	≤ 3x10 ⁻⁶ Kg·m ²
Starting torque at 20°C (68°F)	≤ 0,02 Nm
Maximum load permitted on axial shaft	40 N
Maximum load permitted on radial shaft	60 N
Weight aprox.	0,5 Kg
Operating temperature range	-20°C to +80°C
Vibration according to DIN EN 60068-2-6	100 m/s ² (10Hz...2000Hz)
Shock according to DIN EN 60068-2-27	1000 m/s ² (6ms)
Number of pulses per turn	2.048
Helicoidal cable	2 meters cable (other cable lengths available or connector mounted at the end of the cable, upon request)

OUTPUT SIGNALS



OUTPUT CIRCUIT	Sine-wave
Reference code	7
Power supply	5 VDC $\pm 10\%$
Output voltage	5 VDC
Consumption	Typical: 40 mA Max: 90 mA
Length of cable allowed	10 m
Signal type	SIN/COS, 1 Vpp
Output signal level	0.6 to 1.2 Vpp
Signal offset	2.5 VDC
Reference	0.2 to 1 VDC
Frequency (-3 dB)	≤ 200 kHz
Protection polarity inversion	Not permanent

Cosine leads (90° electric) Sine, view from the shaft, shaft rotating clockwise

CONNECTION



	Cable (**) 3x2x0,14+2x0,34 95.0008003
GND	Black
VCC	Red
COS	Yellow
SIN	Green
$\overline{\text{COS}}$	Brown
$\overline{\text{SIN}}$	Blue
0 (reference)	Grey
$\tilde{0}$	Orange
Shield*	Shield

(*) Shield connected to the encoder housing. It is recommended to connect the end of the wire shield to the ground of the equipment where the encoder is connected. $\perp$

(**) For lengths over 10 meters, we recommend the use of shielded cable 3x(2x0,14)+2x(2x0,14)+2x0,34.

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CONIC SHAFT INCREMENTAL ENCODER FOR INDUSTRIAL APPLICATIONS

SIN/COS

ACCESSORIES

Screw for assembly (included)



95.0004105
M5x60
(Standard)



95.0004099
M5 x 55
(Special Customer VZ03)

Screw for disassembly (not included)



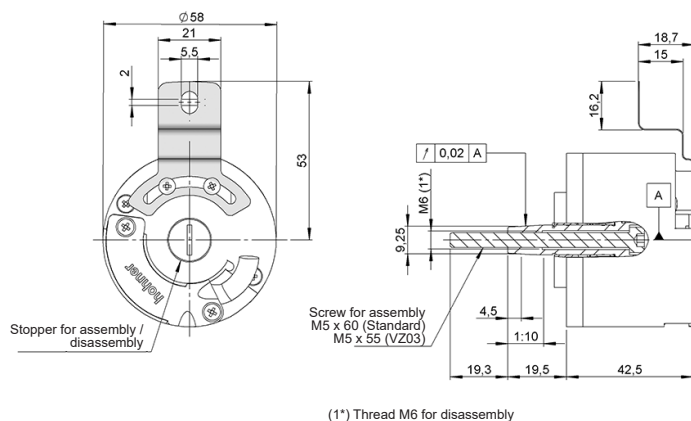
95.0004106
M6x55



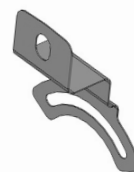
95.0004420
Grub screw M5 x 20
45H DIN913

ANTI-ROTATION SYSTEMS DIMENSIONS

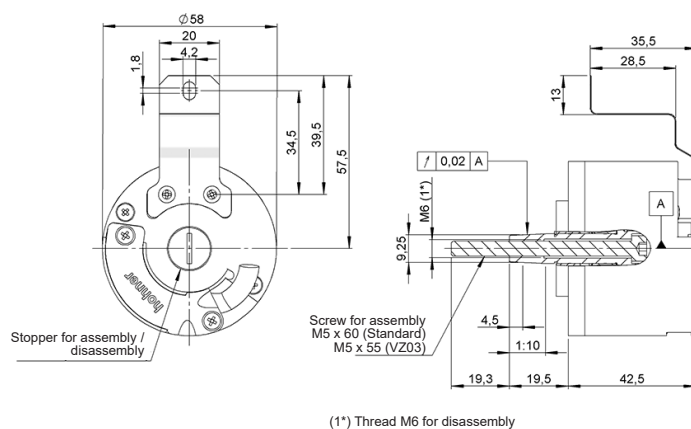
Flexible flange 90.1046



90.1046



Flexible flange 90.1082



90.1082

