SERIE 64S

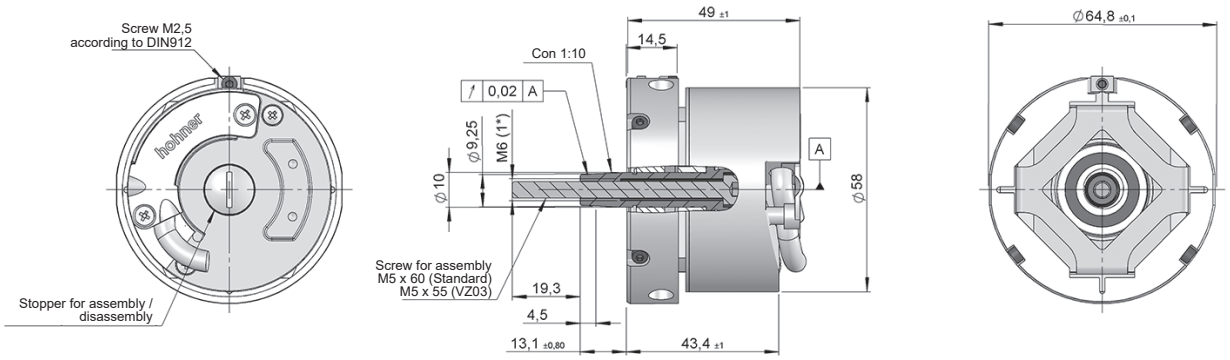
CONIC SHAFT INCREMENTAL ENCODER FOR INDUSTRIAL APPLICATIONS

SIN/COS

- Resolution 2.048 pulses 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 lenght available)

Optical Encoder | Incremental Encoder | High shaft load capacity | Vibration and shock resistant | IP54 | SIN/COS | Express Delivery

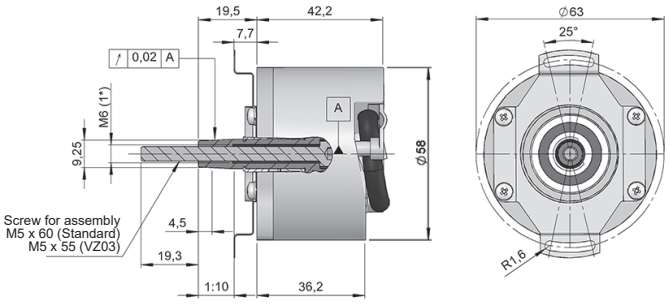
Expanding coupling (90.1100)



(1*) Thread M6 for disassembly

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

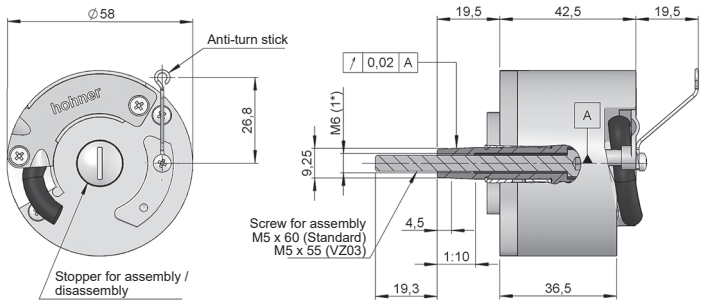
Flexible flange (90.1027)



(1*) Thread M6 for disassembly

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

Anti-turn stick (90.1041)



(1*) Thread M6 for disassembly

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

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CONIC SHAFT INCREMENTAL ENCODER FOR INDUSTRIAL APPLICATIONS

SIN/COS

REFERENCE

Reference example: 64-11111-1024

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 90.1100 **1.** Flexible flange 90.1027 **2.** Anti-turn stick 90.1041 **3.** None (*)	**1.** AÃ+BB̃+0Õ **2.** AÃ+BB̃	**1.** Helicoidal cable	**7.** 5 VDC / SIN-COS 1Vpp 5 VDC		**VZ03.** Screw for assembly M5x55 95.0004099

Order your reference
Step file 3D
info@encoderhohner.com
service available in 24 h

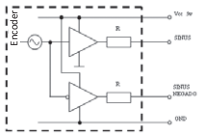
(*) Anti-rotation system type 0 (Expanding coupling 90.1100) and 1 (Flexible flange 90.1027) supplied assembled.
Anti-rotation system type 2 (Anti-turn stick 90.1041) supplied disassembled and includes the screws required for assembly.
Other required anti-rotation systems are not supplied assembled. 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	Cover: Aluminium Housing: Aluminium Shaft: Stainless Steel
Bearings	Ballraces
Bearings lifetime	$1x10^{10}$ rev.
Housing fixing	Expanding coupling 90.1100 (assembled) Flexible flange 90.1027 (assembled) Anti-turn stick 90.1041 (self-assembly kit included)
Permitted misalignment	±0.5 mm axial (90.1100) ±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	≤ $3x10^{-6}$ Kgm²
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/s² (10Hz...2000Hz)
Shock according to DIN EN 60068-2-27	1000 m/s² (6ms)
Number of pulses per turn	2.048
Helicoidal cable	2 meters cable (other cable lenghts 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 ±10%
Output voltage	5 VDC
Consumption	Tipical: 40 mA Max: 90 mA
Lenght of cable allowed	10 m
Signal type	SIN/COS, 1Vpp
Output signal level	0.6 to 1.2 Vpp
Signal offset	2.5 VDC
Reference	0.2 to 1 VDC
Max. frequency (a -3dB)	200 kHz
Protection polarity inversion	Not permanent

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

CONNECTION

	95.0008003 (**) Cable 3x2x0,14+2x0,34
GND	Black
VCC	Red
COS	Yellow
SIN	Green
$\overline{COS}$	Brown
$\overline{SIN}$	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. ⏚

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

ACCESSORIES

Screw for assembly (included)

95.0004105
M5x60
(Standard)

95.0004099
M5 x 55
(Special Customer VZ03)

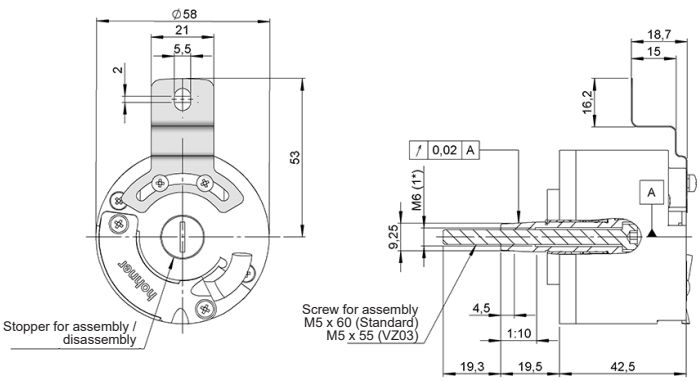
Screw for disassembly (not included)

95.0004106
M6x55

95.0004420
Grub screw M5 x 20
45H DIN913

ANTI-ROTATION SYSTEMS DIMENSIONS

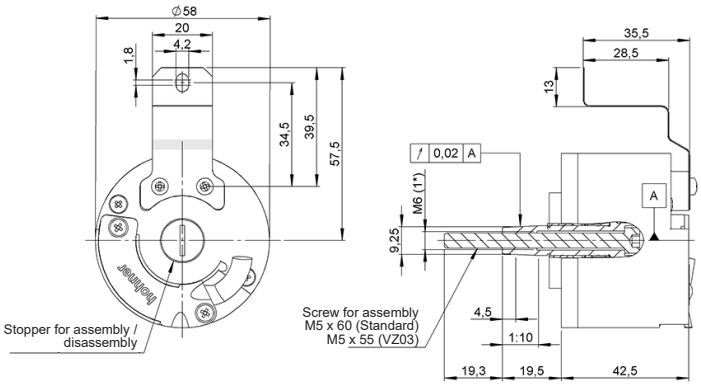
Flexible flange
90.1046



(1*) Thread M6 for disassembly

90.1046

Flexible flange
90.1082



(1*) Thread M6 for disassembly

90.1082