



# SERIE 66

## THREAD SHAFT INCREMENTAL ENCODER FOR INDUSTRIAL APPLICATIONS

Equivalent for SIEMENS 1XP8001-1 / 1XP8001-2

100% interchangeable (mechanically - electronically - pin out)

✓ 66-14121-1024.UC00 / 66-14122-1024.UC00

- Resolution up to 10.000 pulses per turn
- External diameter 58 mm
- Thread shaft M8
- Protection class IP64 according to DIN EN 60529
- Anti-rotation system through flexible flange or antiturn stick
- Connection by cable (ozher cable length available) or industrial connector M16

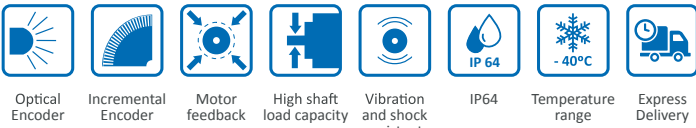
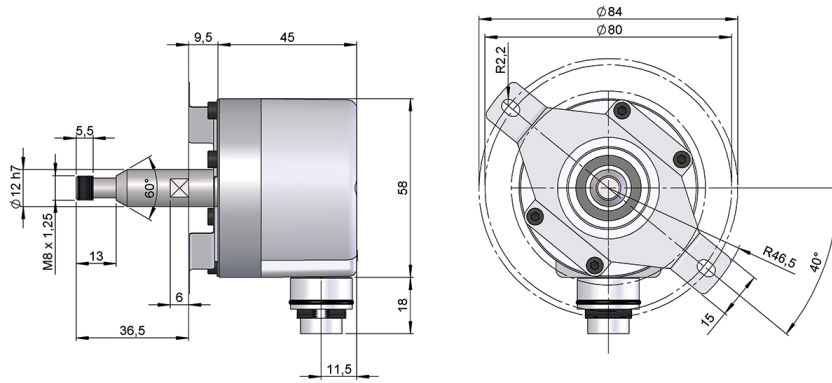


Image with flexible flange 90.1045

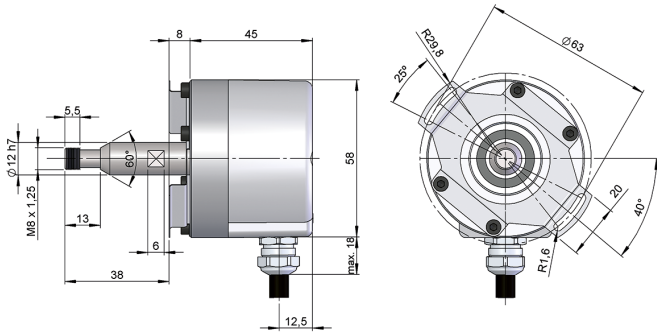


✓ **Flexible flange (90.1045)**



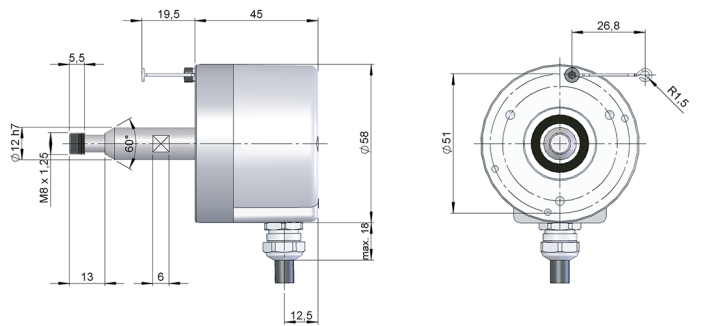
Drawing shaft type 1, anti-rotation system type 4, connection type 2

**Flexible flange (90.1027)**



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

**Anti-turn stick (90.1041)**



Drawing shaft type 1, anti-rotation system type 2, connection type 1

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REFERENCE							Reference example: 66-14121-1024	
Serie	Thread shaft	Anti-rotation system	Output signals	Connection	Power Supply / Electronic output	Pulses number	Special customer	
66 -	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> -	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	<input checked="" type="checkbox"/> 1. Thread M8	1. Option A Flexible flange 90.1027 2. Option B Anti-turn stick 90.1041 <input checked="" type="checkbox"/> 4. Option C Flexible flange 90.1045 3. None (*)	<input checked="" type="checkbox"/> 1. A $\tilde{A}$ +B $\tilde{B}$ +0 $\tilde{0}$ <input checked="" type="checkbox"/> 2. A $\tilde{A}$ +B $\tilde{B}$	<input checked="" type="checkbox"/> 1. Radial cable <input checked="" type="checkbox"/> 2. Radial M16 12p CW	0. 11...30 VDC / NPN Open collector 11...30 VDC <input checked="" type="checkbox"/> 1. 11...30 VDC / Line driver differential Push-Pull 11...30 VDC <input checked="" type="checkbox"/> 2. 5 VDC / RS422 5 VDC (compatible TTL) 6. 11...30 VDC / RS422 5 VDC (compatible TTL)		UT00. -40°C <input checked="" type="checkbox"/> UC00	

Order your reference  
Step file 3D

[info@hohner-elektrotechnik.de](mailto:info@hohner-elektrotechnik.de)

service available in 24 h

(\*) Anti-rotation system type 1 (Flexible flange 90.1027) and 4 (Flexible flange 90.1045) 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".

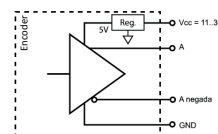
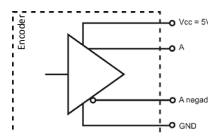
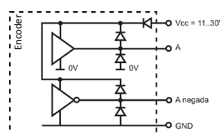
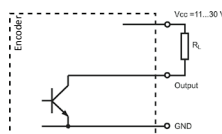
### MECHANICAL SPECIFICATIONS

Materials	Cover: Aluminium Housing: Aluminium Shaft: Stainless Steel
Bearings	Ballraces
Bearings lifetime	1x10 <sup>10</sup> rev.
Housing fixing	Flexible flange 90.1027 (assembled) Flexible flange 90.1045 (assembled) Anti-turn stick 90.1041 (self-assembly kit included)
Permitted misalignment	±0.5 mm axial, ±0.3 mm radial (90.1027, 90.1045, 90.1041)
Maximum number of revolutions permitted mechanically	6000 rpm
Protection against dust and splashes according to DIN EN 60529	IP64
Rotor inertia moment	30 gcm <sup>2</sup>
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 - Standard -40°C to +80°C - Special Customer UT00
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)
Maximum pulses per turn	10.000
Radial cable	2 meters cable or industrial connector M16 (other cable lengths available on order) Female connector not included

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### OUTPUT SIGNALS



OUTPUT CIRCUIT	NPN Open Collector	Push-Pull Differential	RS422 (TTL compatible)	RS422 (TTL compatible)
Reference code	0	1	2	6
Power supply	11...30 VDC	11...30 VDC	5 VDC ±10%	11...30 VDC
Output voltage	11...30 VDC	11...30 VDC	5 VDC	5 VDC
Consumption	40 mA	Typical: 45 mA Max: 150 mA	Typical: 70 mA Max: 150 mA	Typical: 80 mA Max: 160 mA
Max. load capability / channel	40 mA	±30 mA	±20 mA	±20 mA
Length of cable allowed	50 m (24 VDC)	100 m	1200 m	1200 m
"Low" signal level	VOL < 0.4 VDC (24 VDC)	VOL < 2.5 VDC	VOL < 0.5 VDC	VOL < 0.5 VDC
"High" signal level	VOH > 22 VDC (24 VDC)	VOH > VCC – 3 VDC	VOH > 2.5 VDC	VOH > 2.5 VDC
Frequency	100 kHz	200 kHz	300 kHz	300 kHz
Short circuit protection	Not permanent	Yes	Yes	Yes
Protection polarity inversion	Yes	Yes	Not permanent	Yes

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

### CONNECTION

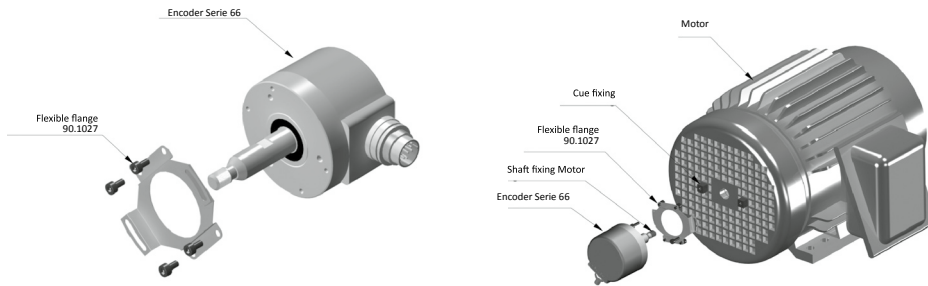


	Cable 3x2x0,14+2x0,34 95.0008003	Connector <input checked="" type="checkbox"/> M16 12p CW
GND	Black	K - L
VCC	Red	B - M
A	Yellow	E
B	Green	H
~A	Brown	F
~B	Blue	A
0 (reference)	Grey	C
0	Orange	D

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### ACCESSORIES EXAMPLES



**Pre-assembled cable with female connector**  
89.036.010.051.XX

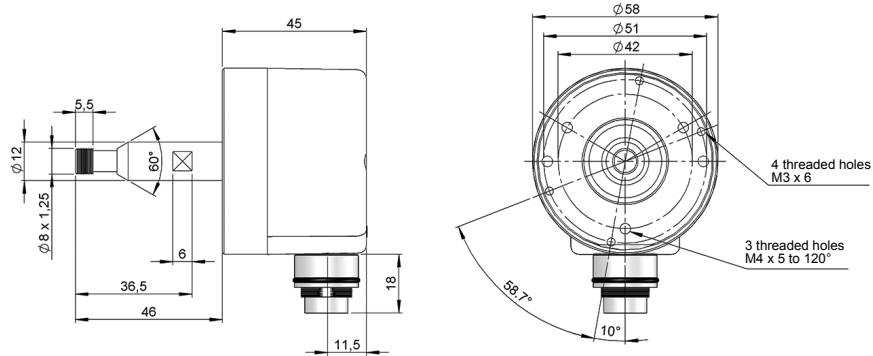
All the accessories available in the section "MOUNTING ACCESSORIES".

### CONNECTION DIMENSIONS

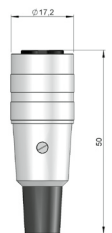
Female connector not included

#### Connection 2

Radial  
M16 12p  
male panel  
clockwise



**Female connector**  
95.0007149



### PRE-ASSEMBLED CABLES

**89.036.010.051.xx**

length

Cable 6x2x0,14

Female connector

M16 12p CCW

