



Image with flange 90.1008

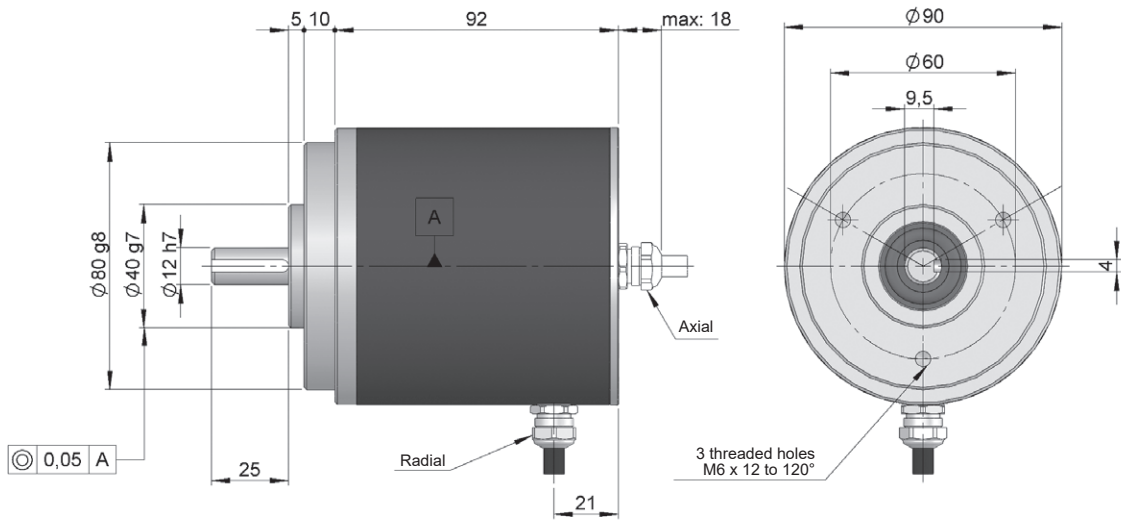


# SERIE 30

## HIGH RESOLUTION INCREMENTAL SOLID SHAFT ENCODER FOR HEAVY DUTY INDUSTRIAL APPLICATIONS

- Resolution up to 50.000 pulses per turn
- External diameter 90 mm
- Shaft  $\varnothing$  12 mm
- Protection class IP67 according to DIN EN 60529
- Executions mechanical, electronic and special optics forms available on request
- Connection by cable (other cable length available) or industrial connector
- Female connector included

Optical Encoder	Incremental Encoder	High shaft load capacity	Vibration and shock resistant	IP67	Temperature range	Express Delivery



Drawing Encoder Serie 30, connection type 0/5

### REFERENCE Reference example: 30-4251-1024

Serie	Output signals	Connection	Power Supply / Electronic output	Pulses number	Special customer
<b>30/30A -</b>	<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"/>
<b>30A. IP 67 (**)</b>	<b>30. A</b> <b>40. A+B</b> <b>42. A+B+0</b> <b>43. A+B+0̃</b> <b>35. Ã+B̃</b> <b>36. Ã+B̃+0̃</b>	<b>0. Axial cable</b> <b>1. Axial 90.9504</b> <b>3. Axial 90.9507</b> <b>4. Axial 90.9512</b> <b>5. Radial cable</b> <b>9. Radial 90.9512</b> <b>M. Axial 90.9510</b>	<b>0. 11...30 VDC / NPN Open collector 11..30 VDC</b> <b>6. 11...30 VDC / RS422 5 VDC (compatible TTL)</b> <b>7. 5 VDC / RS422 5 VDC (compatible TTL)</b> <b>9. 11..30 VDC / Line driver differential Push-Pull 11...30 VDC</b>	(*)	FT00. -40°C

**Order your reference**  
**Step file 3D**  
[info@encoderhohner.com](mailto:info@encoderhohner.com)  
*service available in 24 h*

(\*) 10.000 to 50.000 pulses with interpolation. Available 10.000 direct optical pulses without interpolating upon request.  
(\*\*) The option 30A is only available with cable connection output (0/5).



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## HIGH RESOLUTION INCREMENTAL SOLID SHAFT ENCODER FOR HEAVY DUTY INDUSTRIAL APPLICATIONS

### MECHANICAL SPECIFICATIONS

Materials	Cover: Aluminium Housing: Aluminium Shaft: Stainless Steel
Bearings	Ballraces
Bearings lifetime	1x10 <sup>10</sup> rev.
Maximum number of revolutions permitted mechanically	6000 rpm
Protection against dust and splashes according to DIN EN 60529	IP65 - Standard IP67 - Option 30A
Rotor inertia moment	270 gcm <sup>2</sup>
Starting torque at 20°C (68°F)	≤ 0,05 Nm
Maximum load permitted on axial shaft	80 N
Maximum load permitted on radial shaft	100 N
Weight aprox.	1,2 Kg
Operating temperature range	-20°C to +80°C - Standard -40°C to +80°C - Special Customer FT00
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	50.000
Axial or radial connection	2 meters cable or industrial connector (other cable lenghts available on order) <b>Female connector included</b>

### OUTPUT SIGNALS



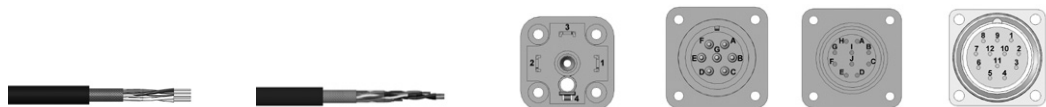
OUTPUT CIRCUIT	NPN Open Collector	RS422 (TTL compatible)	RS422 (TTL compatible)	Push-Pull Differential
Reference code	0	6	7	9
Power supply	11...30 VDC	11...30 VDC	5 VDC ±5%	11...30 VDC
Output voltage	11...30 VDC	5 VDC	5 VDC	11...30 VDC
Consumption	40 mA	Typical: 80 mA Max: 160 mA	Typical: 70 mA Max: 150 mA	Typical: 45 mA Max: 150 mA
Max. load capability / channel	40 mA	±20 mA	±20 mA	±30 mA
Lenght of cable allowed	50 m (24 VDC)	1200 m	1200 m	100 m
"Low" signal level	VOL < 0.4 VDC (24 VDC)	VOL < 0.5 VDC	VOL < 0.5 VDC	VOL < 2.5 VDC
"High" signal level	VOH > 22 VDC (24 VDC)	VOH > 2.5 VDC	VOH > 2.5 VDC	VOH > VCC - 3 VDC
Frequency	100 kHz	300 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

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HIGH RESOLUTION INCREMENTAL SOLID SHAFT ENCODER FOR HEAVY DUTY INDUSTRIAL APPLICATIONS

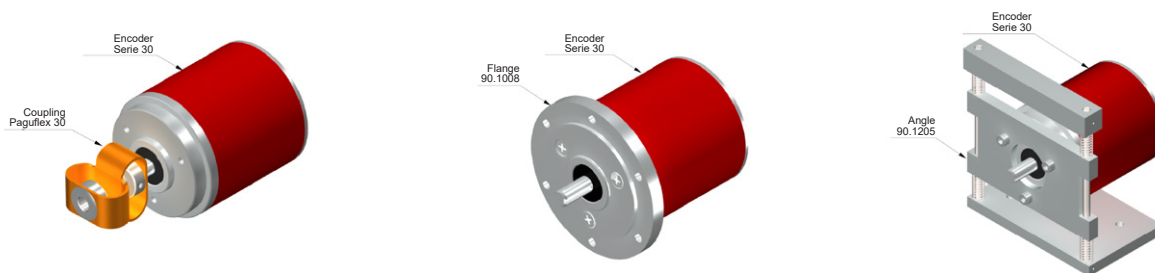
## CONNECTION



	95.0008002 Cable 2x2x0,14+1x0,14	95.0008003 (* Cable 3x2x0,14+2x0,34	90.9504 DIN 43650 4p	90.9507 Mil 7p CW	90.9510 Mil 10p CW	90.9512 M23 12p CW
GND	Yellow	Black	1	A	A	1
VCC	White	Red	2	B	B	2
A	Brown	Yellow	3	C	C	3
B	Green	Green	4	D	D	4
$\tilde{A}$		Brown		E	E	5
$\tilde{B}$		Blue		F	F	6
0 (reference)	Grey	Grey		G	G	7
$\tilde{0}$	Grey	Orange		G	H	8

(\* Cable 3x2x0,14+2x0,34 only for encoders with inverted signals.

## ACCESSORIES EXAMPLES

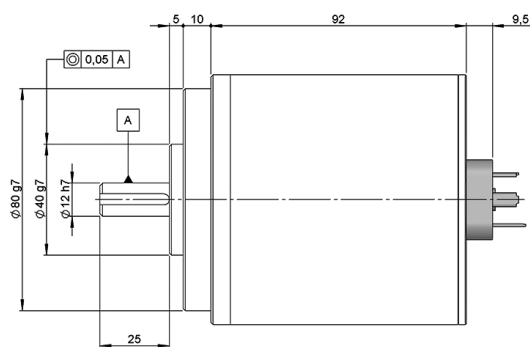


All the accessories available in the section "MOUNTING ACCESSORIES".

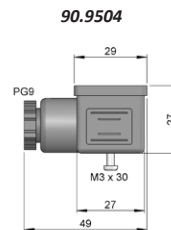
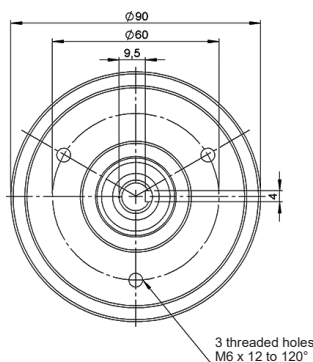
## CONNECTION DIMENSIONS

Female connector included

Connection 1  
Axial 90.9504



90.9504  
DIN 43650 4p  
male panel

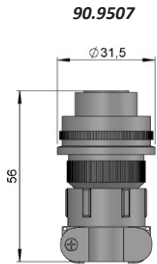
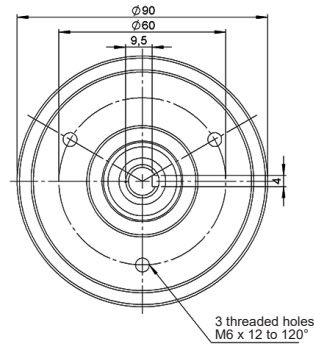
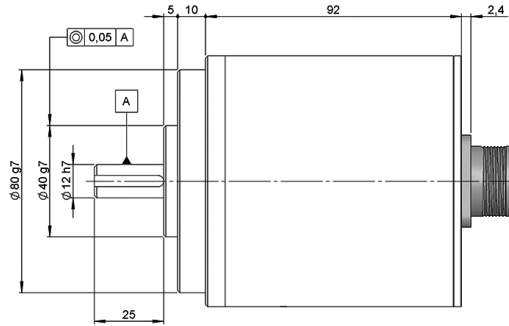


# SERIE 30

## HIGH RESOLUTION INCREMENTAL SOLID SHAFT ENCODER FOR HEAVY DUTY INDUSTRIAL APPLICATIONS

### Connection 3 Axial 90.9507

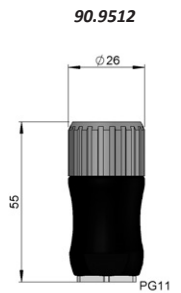
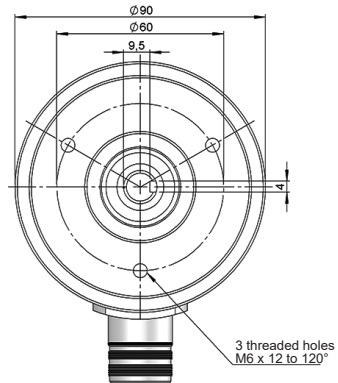
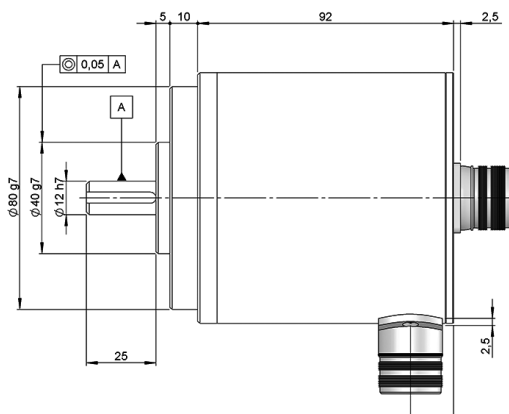
**90.9507**  
Mil 7p  
male panel  
clockwise



### Connection 4 Axial 90.9512

### Connection 9 Radial 90.9512

**90.9512**  
M23 12p  
male panel  
clockwise



### Connection M Axial 90.9510

**90.9510**  
Mil 10p  
male panel  
clockwise

