

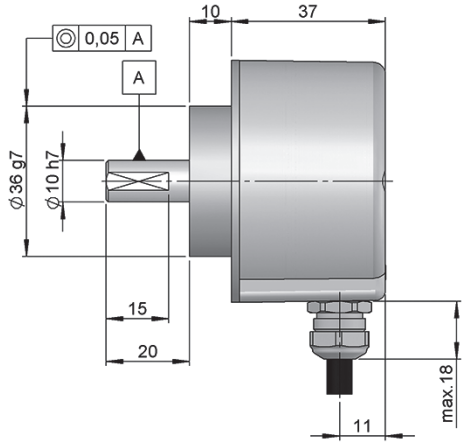
# SERIE 11

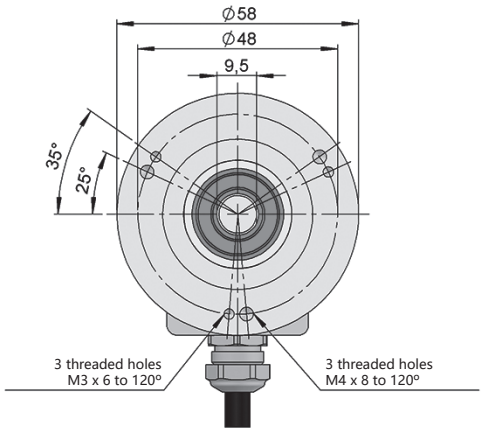
## INCREMENTAL SOLID SHAFT ENCODER COST OPTIMIZED FOR INDUSTRIAL APPLICATIONS

- **Resolution up to 5000 pulses per turn**
- **External diameter 58 mm**
- **Shaft Ø 10 mm**
- **Protection class IP65 according to DIN EN 60529**
- **Connection by cable (other cable length available)**




Optical Encoder | Incremental Encoder | High shaft load capacity | Vibration and shock resistant | IP65 | Temperature range | Express Delivery




Drawing shaft type 1, connection type 3, without flange

## REFERENCE

Reference example: 11-11639-1024

| Serie | Solid shaft | Flange | Output signals | Connection | Power Supply / Electronic output | Pulses number | Special customer |
|---|---|---|---|---|---|---|---|
| 11 - | ☐ | ☐ | ☐ | ☐ | ☐ - | ☐☐☐☐ | .☐☐☐☐ |
| | **1.** Ø 10x20 mm | **1.** None (*) | **1.** A<br>**2.** AB<br>**3.** AB, $\overline{Z}$<br>**5.** AB, $\overline{AB}$<br>**6.** ABZ, $\overline{ABZ}$<br>**9.** ABZ | **3.** Radial cable | **0.** 11...30 VDC / NPN Open collector 11..30 VDC<br>**6.** 11...30 VDC / RS422 5 VDC (compatible TTL)<br>**7.** 5 VDC / RS422 5 VDC (compatible TTL)<br>**9.** 11...30 VDC / Line driver differential Push-Pull 11..30 VDC | | **ST00.** -40°C |

**Order your reference Step file 3D**

**info@encoderhohner.com**

service available in 24 h

(*) Flange mounting available, upon request (90.1002 and 90.1005).

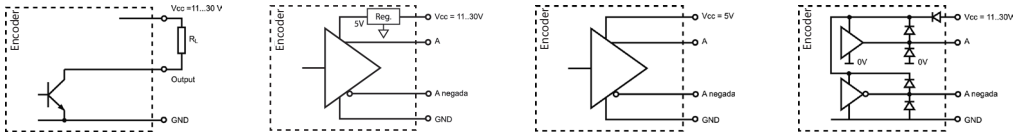
# SERIE 11

## INCREMENTAL SOLID SHAFT ENCODER COST OPTIMIZED FOR INDUSTRIAL APPLICATIONS

### MECHANICAL SPECIFICATIONS

| | |
|---|---|
| Materials | Cover: Zamac<br>Housing: Aluminium<br>Shaft: Stainless Steel |
| Bearings | Ballraces |
| Bearings lifetime | $1x10^{10}$ rev. |
| Maximum number of revolutions permitted mechanically | 6000 rpm |
| Protection against dust and splashes according to DIN EN 60529 | IP65 |
| Rotor inertia moment | 30 gcm² |
| Starting torque at 20°C (68°F) | ≤ 0.02 Nm |
| Maximum load permitted on axial shaft | 40 N |
| Maximum load permitted on radial shaft | 80 N |
| Weight aprox. | 0.5 Kg |
| Operating temperature range | -20°C to +80°C - Standard<br>-40°C to +80°C - Special Customer ST00 |
| 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 | 5000 |
| Radial connection | 2 meters cable (other cable lengths available or connector mounted at the end of the cable, upon request) |

### 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 | Tipical: 80 mA<br>Max: 160 mA | Tipical: 70 mA<br>Max: 150 mA | Tipical: 45 mA<br>Max: 150 mA |
| Max. load capability / channel | 40 mA | ±20 mA | ±20 mA | ±30 mA |
| Length 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

# SERIE 11

## INCREMENTAL SOLID SHAFT ENCODER COST OPTIMIZED FOR INDUSTRIAL APPLICATIONS

## CONNECTION

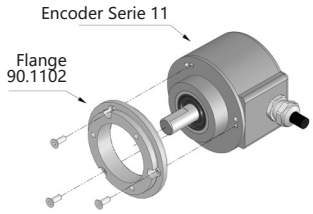


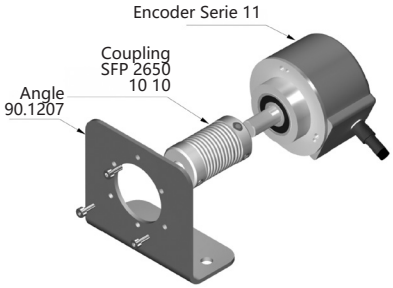


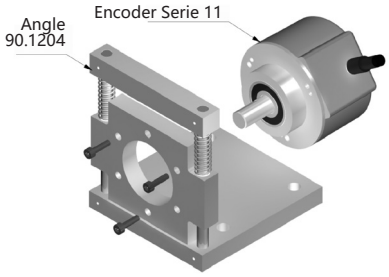
| | **Cable**<br>2x2x0.14+1x0.14<br>95.0008002 | **Cable**<br>3x2x0.14+2x0.34<br>95.0008003 (*) |
|---|---|---|
| GND | Yellow (YE) | Black (BK) |
| +UB | White (WH) | Red (RD) |
| A | Brown (BN) | Yellow (YE) |
| B | Green (GN) | Green (GN) |
| $\overline{A}$ | - | Brown (BN) |
| $\overline{B}$ | - | Blue (BU) |
| Z | Grey (GY) | Grey (GY) |
| $\overline{Z}$ | Grey (GY) | Orange (OG) |
| Case | Shield | Shield |

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

## ACCESSORIES EXAMPLES




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

S11_EN_01 06/25 Subject to errors and changes.
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