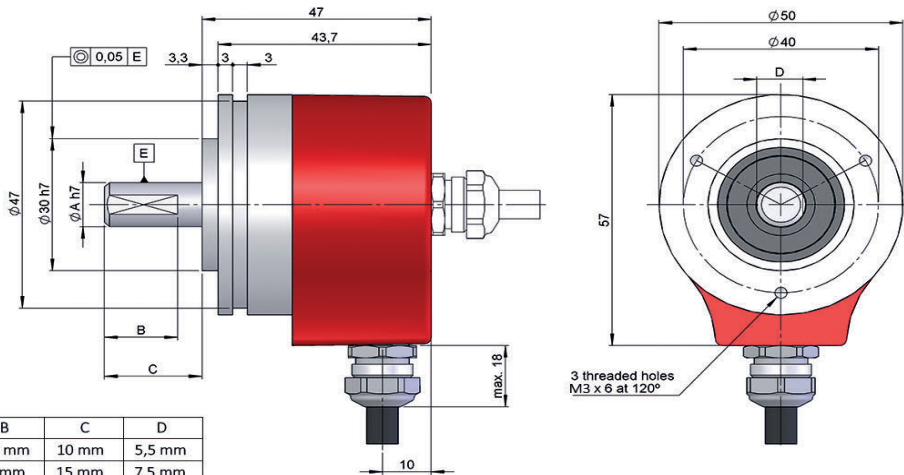
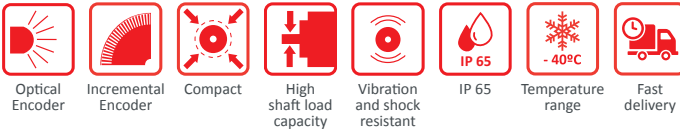


SERIE 50

COMPACT INCREMENTAL SOLID SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

- Resolution up to 5.000 pulses per turn
- External diameter 50 mm
- Shaft of 6, 8 or 10 mm
- Protection class IP65 according to DIN EN 60529
- Connection by cable (any cable length available) or industrial connector M12 or M23
- Female connector included



| SHAFT | $\varnothing A$ | B | C | D |
|-------|-----------------|--------|-------|--------|
| 1 | 6 mm | 7,5 mm | 10 mm | 5,5 mm |
| 2 | 8 mm | 10 mm | 15 mm | 7,5 mm |
| 3 | 10 mm | 15 mm | 20 mm | 9,5 mm |

Drawing shaft type 3, connection type 1/4, without flange

REFERENCE

Reference example: 50-13641-1024

| Serie | Shaft | Flange | Output signals | Connection | Power Supply / Electronic outp. | Pulses number | Special customer |
|-------|--|--------------------------|--|---|--|--|--|
| 50 - | <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"/> |
| | 1. $\varnothing 6 \times 10 \text{ mm}$ 2. $\varnothing 8 \times 15 \text{ mm}$ 3. $\varnothing 10 \times 20 \text{ mm}$ | 1. None | 1. A 2. A+B 3. A+B+ \varnothing 5. A \ddot{A} +B \ddot{B} 6. A \ddot{A} +B \ddot{B} + \varnothing 9. A+B+ \varnothing | 1. Axial cable 2. Axial 90.9508 3. Axial 90.9512 4. Radial cable 5. Radial 90.9508 6. Radial 90.9512 | 0. 11...30V / NPN Open collector 11..30V 1. 11...30V / Line driver differential Push-Pull 11..30 V 2. 5V / RS422 5V (compatible TTL) | | ET00. -40°C |

Order your reference
Step file 3D

info@encoderhohner.com
service available in 24 h



SERIE 50

COMPACT INCREMENTAL SOLID SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

MECHANICAL SPECIFICATIONS

| | |
|--|---|
| Materials | Cover: Aluminium Housing: Aluminium 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 gcm ² |
| Starting torque at 20°C (68°F) | Max. 2,0 Ncm |
| 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 -40°C to +80°C - Special Customer ET00 |
| 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) |
| Maximum pulses per turn | 5.000 |
| Axial or radial connection | 2 meters cable or industrial connector M12 or M23 (other cable lengths available on order) Female connector included |

OUTPUT SIGNALS



| OUTPUT CIRCUIT | NPN Open Collector | Push-Pull Differential | RS422 (TTL compatible) |
|-------------------------------|----------------------|-------------------------------|-------------------------------|
| Reference code | 0 | 1 | 2 |
| Power supply | 11...30 V | 11...30 V | 5 V ±5% |
| Output voltage | 11...30 V | 11...30 V | 5 V |
| Consumption | 40 mA | Typical: 45 mA Max: 150 mA | Typical: 70 mA Max: 150 mA |
| Max. load capability | 40 mA | ±30 mA | ±20 mA |
| Length of cable allowed | 50 m (a 24 V) | 100 m | 1200 m |
| "Low" signal level | VOL < 0,4 V (a 24 V) | VOL < 2.5 V | VOL < 0,5 V |
| "High" signal level | VOH > 22 V (a 24 V) | VOH > V _{CC} - 3 V | VOH > 2.5 V |
| Frequency | 100 kHz | 200 kHz | 300 kHz |
| Short circuit protection | Not permanent | Yes | Yes |
| Protection polarity inversion | Yes | Yes | No |

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

SERIE 50

COMPACT INCREMENTAL SOLID SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

CONNECTION



| | 95.0008051 (* Cable 5x0,14) | 95.0008052 (* Cable 8x0,14) | 90.9508 M12 8p counterclockwise | 90.9512 M23 12p clockwise |
|---------------|--------------------------------|--------------------------------|---------------------------------------|---------------------------------|
| GND | White | White | 1 | 1 |
| Vcc | Brown | Brown | 2 | 2 |
| A | Green | Green | 3 | 3 |
| B | Yellow | Grey | 4 | 4 |
| A inverted | | Yellow | 5 | 5 |
| B inverted | | Pink | 6 | 6 |
| 0 (reference) | Grey | Blue | 7 | 7 |
| 0 inverted | Grey | Red | 8 | 8 |

(*) For lengths over 2 meters standard cable, we recommend the use of twisted pair cable 2x2x0,14+1x0,14 (95.0008002) or 3x2x0,14+2x0,34 (95.0008003). Request the final cable length required to avoid junctions.

CONNECTION DIMENSIONS

Included female connector

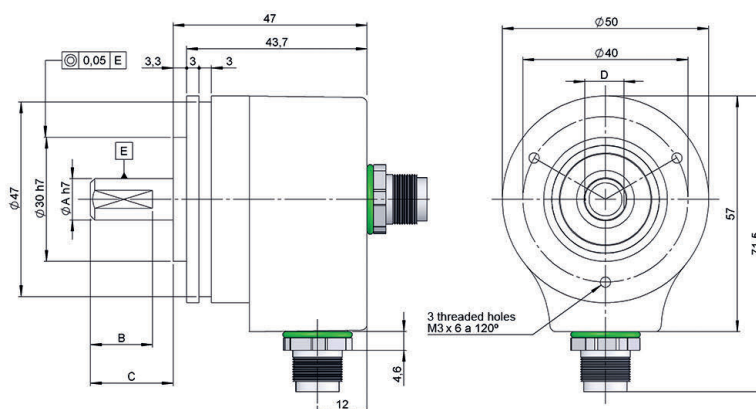
Connection 2

Axial 90.9508

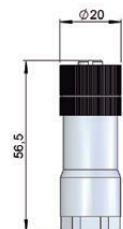
Connection 5

Radial 90.9508

90.9508
M12 8p
male panel
counterclockwise



90.9508



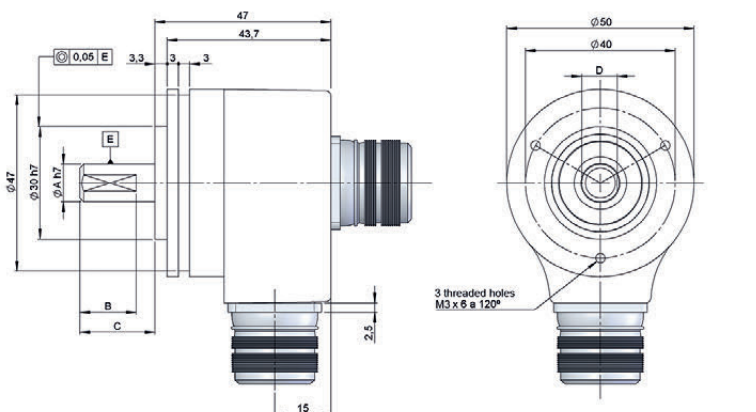
Connection 3

Axial 90.9512

Connection 6

Radial 90.9512

90.9512
M23 12p
male panel
clockwise



90.9512

