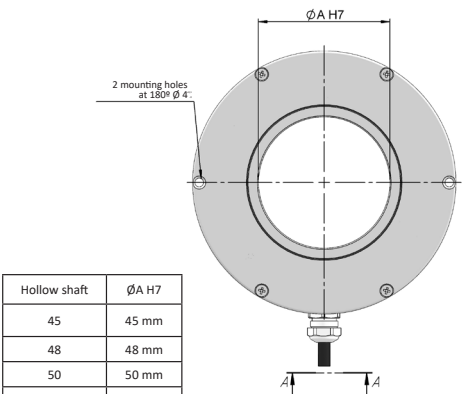
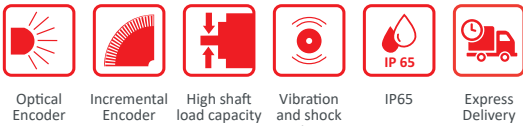


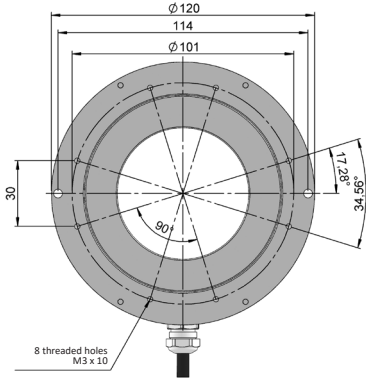
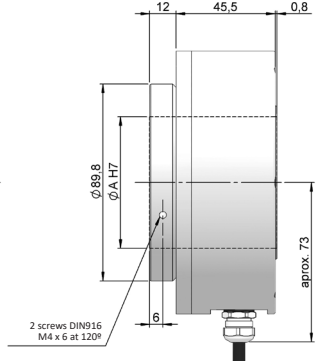
SERIE 120

INCREMENTAL HOLLOW SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

- Resolution up to 40.000 pulses per turn
- External diameter 120 mm
- Hollow shaft from \varnothing 45 to 65 mm
- Protection class IP65 according to DIN EN 60529
- Shaft fixing through frontal setscrews
- Anti-rotation system through flexible flange
- Connection by cable (other cable length available) or industrial connector M23



| Hollow shaft | $\varnothing A H7$ |
|--------------|--------------------|
| 45 | 45 mm |
| 48 | 48 mm |
| 50 | 50 mm |
| 55 | 55 mm |
| 60 | 60 mm |
| 65 | 65 mm |



Drawing Hollow shaft mechanical option type 1 connection type 1

REFERENCE Reference example: 120-145120-2500

| Serie | Mechanical option | Hollow shaft | Output signals | Connection | Power Supply / Electronic output | Pulses number | Special customer |
|-------|--------------------------|--|---|--|--|---|---|
| 120 - | <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"/> |
| | 1. Frontal setscrews | 45. \varnothing 45 mm 48. \varnothing 48 mm 50. \varnothing 50 mm 55. \varnothing 55 mm 60. \varnothing 60 mm 65. \varnothing 65 mm | 1. $\tilde{A}\tilde{A}+\tilde{B}\tilde{B}+0\tilde{0}$ 2. $\tilde{A}\tilde{A}+\tilde{B}\tilde{B}$ | 1. Radial cable 2. Radial M23 12p CW | 0. 11...30 VDC / NPN Open collector 11..30 VDC 1. 11..30 VDC / Line driver differential Push-Pull 11..30 VDC 2. 5 VDC / RS422 5 VDC (compatible TTL) | | |

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

The required anti-rotation system is not included in the reference (order separately). Anti-rotation system is supplied disassembled and includes the screws required for assembly to the encoder. All systems available in the sections "MOUNTING ACCESSORIES".



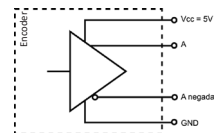
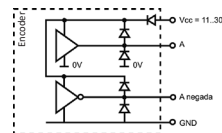
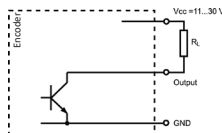
SERIE 120

INCREMENTAL HOLLOW SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

MECHANICAL SPECIFICATIONS

| | |
|--|---|
| Materials | Cover: Aluminium Housing: Aluminium Shaft: Stainless Steel |
| Bearings | Ballraces |
| Bearings lifetime | 1x10 ¹⁰ rev. |
| Housing fixing | Flexible flange |
| Shaft fixing | Frontal setscrews |
| Hollow shaft diameter | 45, 48, 50, 55, 60 or 65 mm |
| Maximum number of revolutions permitted mechanically | 2700 rpm |
| Protection against dust and splashes according to DIN EN 60529 | IP65 |
| Rotor inertia moment | ≤ 13 Kg cm ² |
| Starting torque at 20°C (68°F) | ≤ 0,1 Nm |
| Maximum load permitted on axial shaft | ≤ 60 N |
| Maximum load permitted on radial shaft | ≤ 80 N |
| Weight aprox. | 0,7 Kg |
| Operating temperature range | -20°C to +80°C |
| 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 | 40.000 |
| Radial connection | 2 meters cable or industrial connector M23 (other cable lengths available on order) Female connector not included |

OUTPUT SIGNALS



| OUTPUT CIRCUIT | NPN Open Collector | Push-Pull Differential | RS422 (TTL compatible) |
|---|------------------------|-------------------------------|-------------------------------|
| Reference code | 0 | 1 | 2 |
| Power supply | 11...30 VDC | 11...30 VDC | 5 VDC ±5% |
| Output voltage | 11...30 VDC | 11...30 VDC | 5 VDC |
| Consumption | 80 mA | Typical: 85 mA Max: 200 mA | Typical: 85 mA Max: 200 mA |
| Max. load capability / channel | 40 mA | ±30 mA | ±20 mA |
| "Low" signal level | VOL < 0.4 VDC (24 VDC) | VOL < 2.5 VDC | VOL < 0.5 VDC |
| "High" signal level | VOH > 22 VDC (24 VDC) | VOH > VCC - 3 VDC | VOH > 2.5 VDC |
| Frequency | 100 kHz | 200 kHz | 300 kHz |
| Short circuit protection | Not permanent | Yes | Yes |
| Protection polarity inversion | Yes | Yes | Yes |
| Channel B leads (90° electric) channel A, view from the shaft, shaft rotating clockwise | | | |

SERIE 120

INCREMENTAL HOLLOW SHAFT ENCODER FOR INDUSTRIAL APPLICATIONS

CONNECTION



| | Cable | Connector |
|---------------|-------------------------------|---------------|
| | 3x2x0,14+2x0,34 95.0008003 | M23 12p CW |
| GND | Black | 1 |
| VCC | Red | 2 |
| A | Yellow | 3 |
| B | Green | 4 |
| \tilde{A} | Brown | 5 |
| \tilde{B} | Blue | 6 |
| 0 (reference) | Grey | 7 |
| $\tilde{0}$ | Orange | 8 |

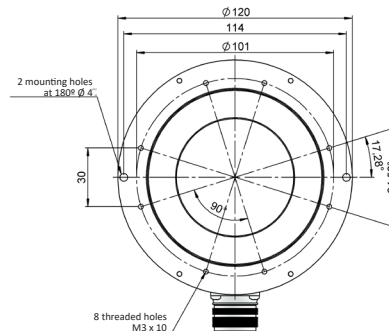
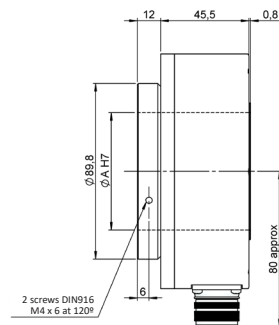
CONNECTION DIMENSIONS

Female connector not included

Connection 2
Radial

Fixation 2
Frontal setscrews

M23 12p
male panel
clockwise



Female connector
95.0007131

