

SERIE 100 H / DUO

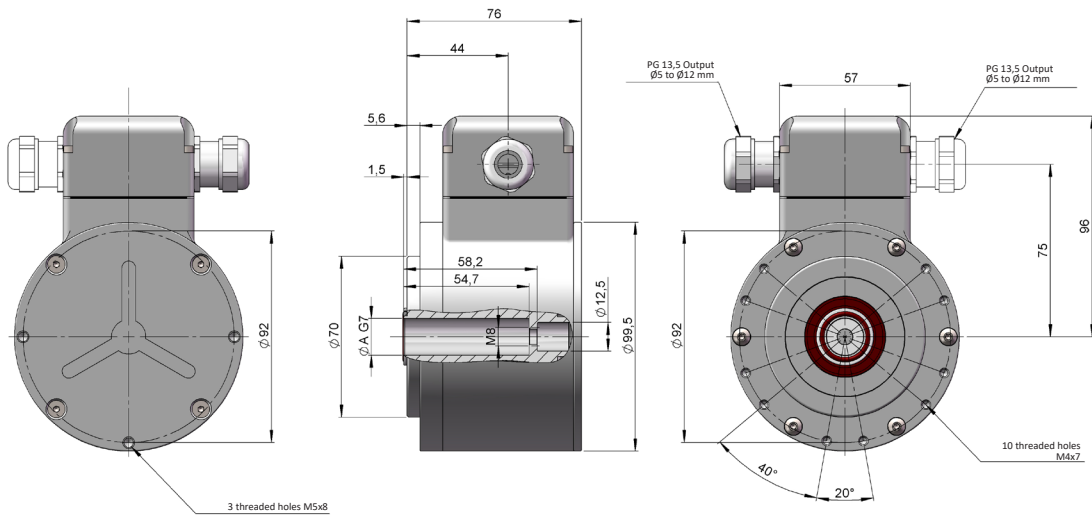
INCREMENTAL ENCODER FOR HEAVY DUTY INDUSTRIAL APPLICATIONS



- Resolution up to 5.000 pulses per turn
- External diameter 100 mm
- Blind hollow shaft from \varnothing 12 to 16 mm
- Hybrid bearings for extended lifetime
- Shaft insulation up to 2,5 kV
- Protection class IP66 according to DIN EN 60529
- Connection by terminal box with plug-in spring terminal connectors, rotatable through 360°
- Dual output available



Heavy Duty Encoder Incremental Encoder High shaft load capacity Vibration and shock resistant IP66 2,5 kV bearing isolation Express Delivery



Drawing blind hollow shaft type 12, connection type 1

REFERENCE

Reference example: 100H-12111-5000

Serie	Blind-Hollow shaft	Output signals	Connection	Power Supply / Electronic output	Pulses number	Special customer
100H/100H DUO -	<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"/>
100H. Single output 100H DUO. Dual output (*)	12. \varnothing 12 mm 16. \varnothing 16 mm	1. A \tilde{A} +B \tilde{B} +0 \tilde{O} 2. A \tilde{A} +B \tilde{B}	1. Radial terminal box 2. Radial cable 2 m 3. Radial M23 12p CW 4. Radial M12 8p CW 5. Double-shielded radial cable 2 m 6. Double-shielded halogen-free radial cable 2 m	1. 9...30 VDC / Push-Pull differential line driver 9...30 VDC 2. 5 VDC / Differential line driver 5 VDC (RS422 compatible) 6. 9...30 VDC / Differential line driver 5 VDC (RS422 compatible)		YT00. -40°C YT01. +100°C

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. Available in the section "ACCESSORIES".

(*) Redundant encoder, with 2 galvanically isolated electronics.



Assembly and disassembly instruction manual available in:
www.encoderhohner.com/product/serie-100h/



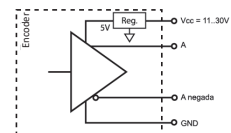
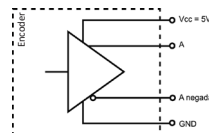
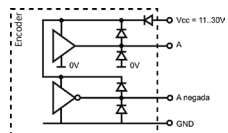
SERIE 100H / DUO

INCREMENTAL ENCODER FOR HEAVY DUTY INDUSTRIAL APPLICATIONS

MECHANICAL SPECIFICATIONS

Materials	Housing: Anodized aluminium Shaft: Stainless Steel AISI316
Bearings	Dual set of hybrid bearings with ceramic balls
Bearings lifetime	1x10 ¹⁰ rev.
Housing fixing	Torque arm M6
Permitted misalignment	±0,05 mm radial
Shaft fixing	Screw M5 or M6
Hollow shaft diameter	12, 16 mm
Shaft insulation	2,5 kV
Maximum number of revolutions permitted mechanically	6000 rpm
Protection against dust and splashes according to DIN EN 60529	IP66
Rotor inertia moment	≈ 500 gcm ²
Starting torque at 20°C (68°F)	≈ 0,07 Nm
Maximum load permitted on axial shaft	400 N
Maximum load permitted on radial shaft	500 N
Weight approx.	1,7 Kg
Operating temperature range	-20°C to +80°C - Standard -40°C to +80°C - Special Customer Option YT00 -20°C to +100°C - Special Customer Option YT01
Vibration according to DIN EN 60068-2-6	300 m/s ² (10Hz...2000Hz)
Shock according to DIN EN 60068-2-27	2500 m/s ² (6ms)
Maximum pulses per turn	5.000 points par tour
Radial connection	Terminal box, cable or M12/M23 connector

OUTPUT SIGNALS



OUTPUT CIRCUIT	Push-Pull differential line driver	Differential line driver (RS422 compatible)	Differential line driver (RS422 compatible)
Reference code	1	2	6
Power supply	9...30 VDC	5 VDC ±5%	9...30 VDC
Output voltage	9...30 VDC	5 VDC	5 VDC
Consumption	Typical: 45 mA Max: 200 mA	Typical: 70 mA Max: 200 mA	Typical: 80 mA Max: 200 mA
Max. load capability / channel	±30 mA	±20 mA	±20 mA
Length of cable allowed	100 m	1200 m	1200 m
"Low" signal level	VOL < 2.5 VDC	VOL < 0.5 VDC	VOL < 0.5 VDC
"High" signal level	VOH > VCC - 3 VDC	VOH > 2.5 VDC	VOH > 2.5 VDC
Frequency	200 kHz	300 kHz	300 kHz
Short circuit protection	Yes	Yes	Yes
Protection polarity inversion	Yes	Yes	Yes

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

100H DUO: Optionally, different output signal level for each encoder (factory configuration).

SERIE 100H / DUO

INCREMENTAL ENCODER FOR HEAVY DUTY INDUSTRIAL APPLICATIONS

CONNECTION



	Cable 3x2x0,14+2x0,34 standard 95.0008003	Cable 5x2x0,14+2x0,34 double-shielded 95.0008070	Cable 5x2x0,14+2x0,34 double-shielded halogen-free 95.0008082	Cable 6x2x0,14 up to 100°C 95.0008072	Connector M12 8p CCW	Connector M23 12p CW	Terminal
GND	Black	White (tp1)	White (tp1)	White	1	1	GND
VCC	Red	Brown (tp1)	Brown (tp1)	Brown	2	2	+UB
A	Yellow	Red (tp2)	Red (tp2)	Green	3	3	A+
B	Green	Black (tp3)	Black (tp3)	Blue	4	4	B+
\tilde{A}	Brown	Light blue (tp2)	Light blue (tp2)	Yellow	5	5	A-
\tilde{B}	Blue	Violet (tp3)	Violet (tp3)	Red	6	6	B-
0	Grey	Grey (tp4)	Grey (tp4)	Grey-Pink	7	7	Z+
$\tilde{0}$	Orange	Pink (tp4)	Pink (tp4)	Red-Blue	8	8	Z-
Shield	Shield	Shield	Shield	Shield	Housing	Housing	Shield

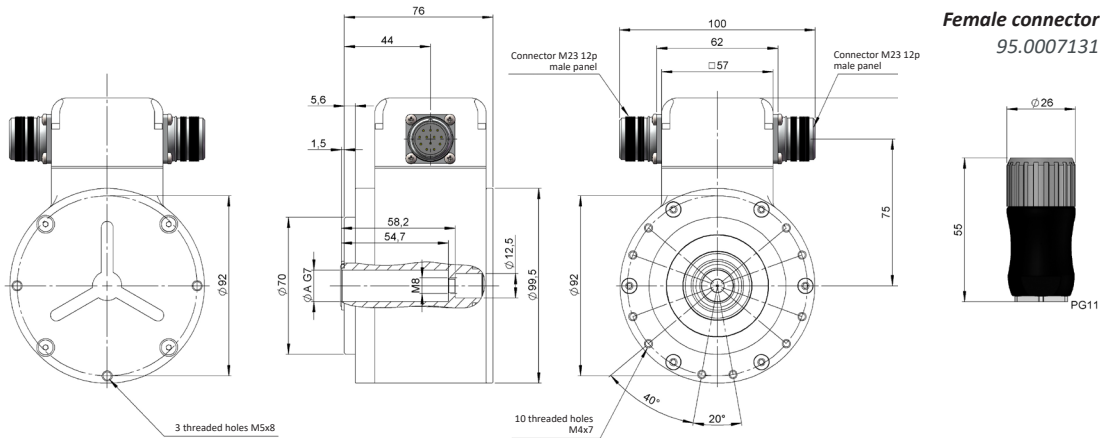
(tp1), (tp2), (tp3), (tp4) Twisted pair cables.

CONNECTION DIMENSIONS

Female connector not included

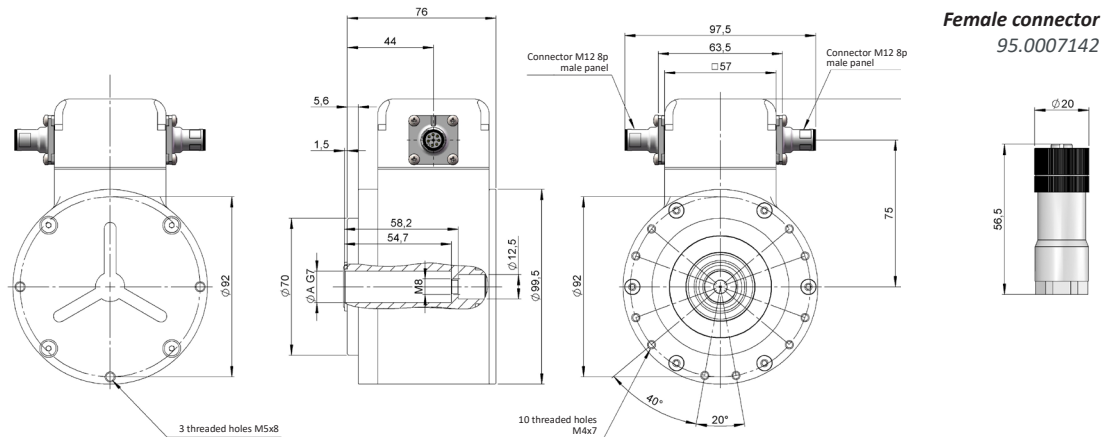
Connection 3

Radial
M23 12p
male panel
clockwise



Connection 4

Radial
M12 8p
male panel
counter clockwise



SERIE 100H / DUO

INCREMENTAL ENCODER FOR HEAVY DUTY INDUSTRIAL APPLICATIONS

ACCESSORIES

(not included)

Torque arm M6

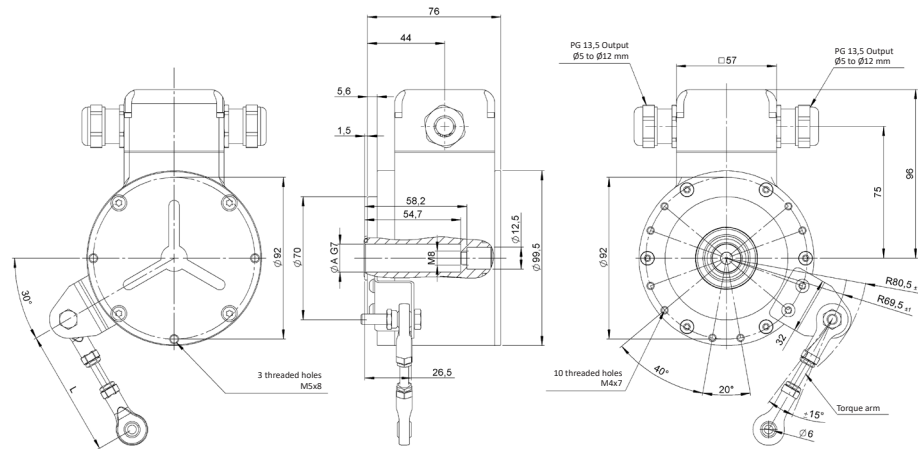
90.1130.70
L= 70 mm

90.1130.100
L= 100 mm

other length
available on order

Mounting kit
00.0003008

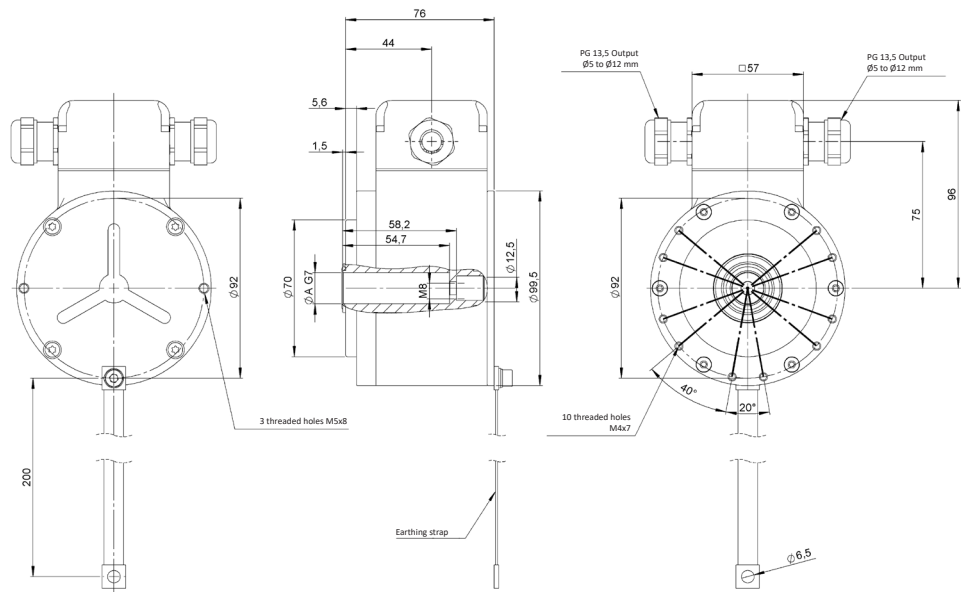
Support plate
00.0003007



To ensure proper use and assembly of the accessory, refer to the manual.

Earthing strap

00.0003006
200 mm



Mounting &
dismounting kit
00.0003009



95.0004224
M6x30



95.0004227
M6



95.0004223
M6x10



95.0004222
M8x45