



- Heavy-duty fieldbus encoder
- Single and multiturn version
- Velocity output, roundloop function
- For harsh environment such as steel mills, mobile equipment, construction machinery
- Stainless steel housing available on request
- ATEX cat. 3 certification for zones 2, 22



XAC80 • XAC81



ENVIRONMENTAL SPECIFICATIONS

Certification:	Ex II 3G Ex nA IIB T5 Gc EX II 3D Ex tc IIIC T100° Dc IP65
Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
Protection:	IP66 (with connection cap assembled), IP65 shaft side
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H.without condensation)
Option:	• Operating temperature range: -40°C +100°C (-40°F +212°F)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 14 mm
Shaft loading (axial, radial):	150 N max.
Shaft rotational speed:	6000 rpm max.
Bearing life:	400x10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Electrical connections:	connection cap with terminal block or M12 connectors
Weight:	~1,3 kg (45,8 oz)

ELECTRICAL SPECIFICATIONS

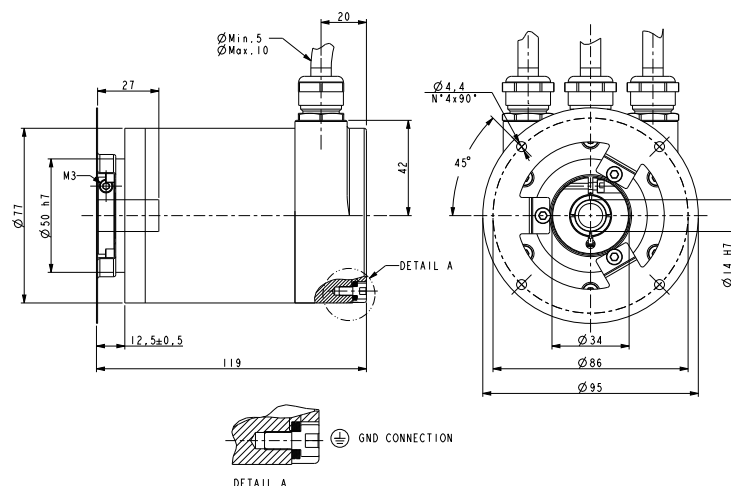
Resolution:	262144 cpr or 65536 cpr x 16384 turns
Accuracy:	13 bit version: ± 0,7° others: ± 0,007°
Counting frequency:	150 kHz max.
Power supply:	+10V +30V
Power consumption:	2,2 W
Programmable parameters:	see user manual for each interface
Interface:	Profibus-DP V0, CANopen® DS301 DS406, DeviceNet, Profinet, EtherCAT, Modbus/TCP, Powerlink, Ethernet/IP
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4

MATERIALS

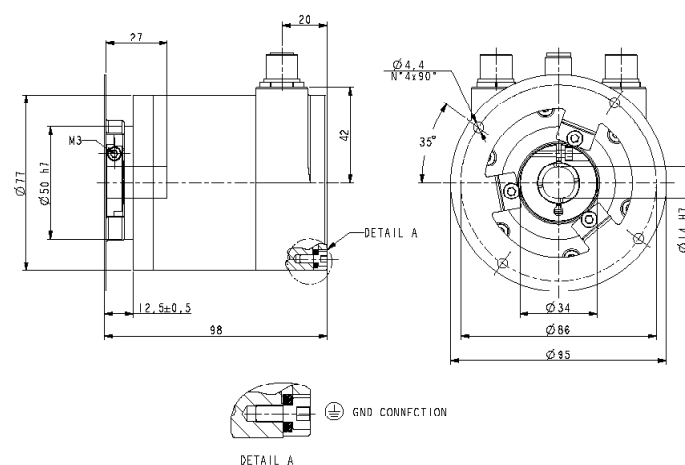
Flange:	anticorodal, UNI EN AW-6082
Housing:	anticorodal, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 1.4305
Option:	stainless steel housing, AISI 303 (UNI EN 1.4305)

ACCESSORIES

LKM-1758:	Ø 10 mm shaft extension
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XAC80



XAC81

Order code

XAC80	XX-XX (a)	-	XXX (b)	-	XX (c)	-	X (d)	X (e)	X (f)	-	X (g)	/Sxxx (h)
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**(a) RESOLUTION
(BIT SINGLETURN-BIT MULTITURN)**

18-00 = 18 bit (262144 cpr x 1 turn)
13-14 = 13 x 14 bit (8192 cpr x 16384 turns)
16-14 = 16 x 14 (65536 cpr x 16384 turns)

(b) INTERFACE / POWER SUPPLY

PB2 = Profibus-DP, +10V +30V
CB2 = CANopen, +10V +30V
FD2 = DeviceNet, +10V +30V

(c) SHAFT DIAMETER

14 = 14 mm

(d) PROTECTION

P = IP66 (with connection cap assembled), IP65 shaft side

(e) OPERATING TEMP. RANGE

T = -25°C +85°C (-13°F +185°F)
K = -40°C +100°C (-40°F +212°F)

(f) HOUSING MATERIAL

- = Standard housing
X = Stainless steel housing

(g) CONNECTION POSITION

R = radial

(h) CUSTOM VERSION

Order code

XAC81	XX-XX (a)	-	XXX (b)	-	XX (c)	-	X (d)	X (e)	X (f)	-	X (g)	/Sxxx (h)
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(b) INTERFACE / POWER SUPPLY

PT2 = Profinet, +10V +30V
EC2 = EtherCAT, +10V +30V
MT2 = Modbus/TCP, +10V +30V
PL2 = Powerlink, +10V +30V
EP2 = Ethernet/IP, +10V +30V

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Document release	Date	Description
1.0	05.08.2025	New order code