

# ROTAPULS

ATEX incremental encoder

Series

**XC77**



- ATEX II 2G Ex d IIC T6 Gb, II 2D Ex tb IIIC T85°C Db certification
- Suitable for ATEX zones 1, 2, 21 and 22
- Compact & robust construction with axial/radial cable outlet
- Ø 14 mm hollow shaft
- Resolution up to 10000 PPR



XC77

## ENVIRONMENTAL SPECIFICATIONS

Certification:	II 2G Ex d IIC T6 Gb, II 2D Ex tb IIIC T85°C Db
Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP65
Environmental temperature max.:	40°C max
Operating temperature range:	-20°C +40°C (-4°F +104°F)
Storage temperature range:	-20°C +85°C (-4°F +185°F) (98% R.H. without condensation)

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	Ø 14 mm
Shaft loading (axial, radial):	60 N max.
Shaft rotational speed:	6000 rpm max.
Starting torque (at 20°C):	≤ 5 Ncm
Bearings life:	400 x 10 <sup>6</sup> rev. min. (10 <sup>9</sup> rev. min. with 20 N shaft loading max.)
Electrical connections:	cable output 3 m (9.8 ft)
Weight:	~ 750 g (26,4 oz)
Option:	• additional cable

## ELECTRICAL SPECIFICATIONS

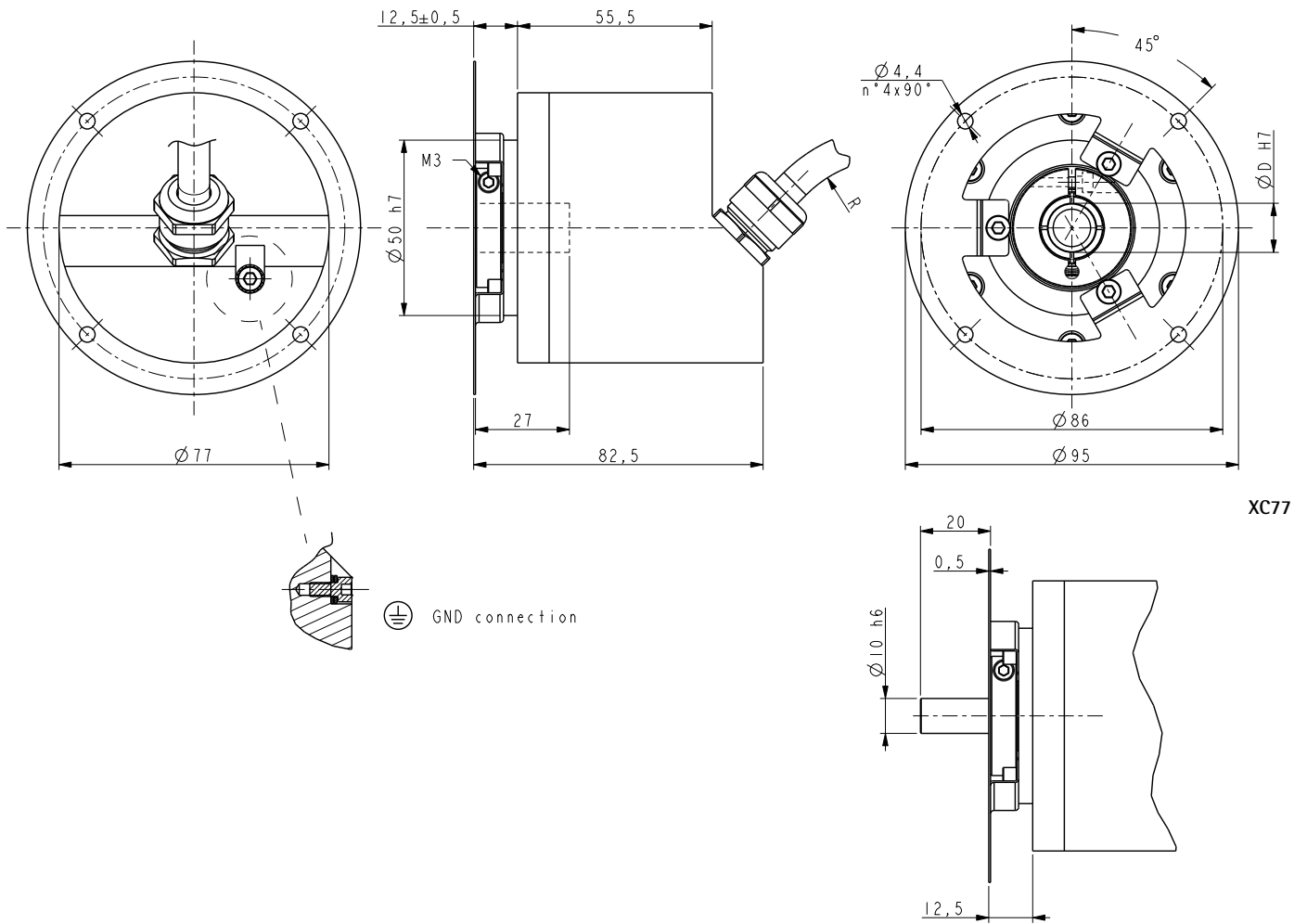
Standard resolution with magnetic sensing (PPR): (output circuits N, P, Y, L, H)	2-4-5-6-8-10-12-15-16-20-24-25-30-35-36-40-50-60-64-70 80-90-120-125-127-142-150-160-180-216-230-236-240-254 267-270-314-360-375-410-435-471-635-800-1068-1270 1400-2250 (other on request)
Standard resolution with unbreakable disk (PPR): (output circuits N, P, Y, L, H)	100-200-250-256-300-400-500-512-600-720-750-900-1000 1024-1200-1250-1440-1500-1800-2000-2048-2500-3000 3600-4000-4096-5000
High accuracy glass disk (PPR): (output circuits N, P, Y, L, H)	5K=5000, 6K=6000, 9K=9000, 10K=10000 4KB=4096, 8KB=8192
Counting frequency:	300 kHz max.
Output circuits:	NPN, Push-Pull, Line Driver, Universal circuit
Power supply:	+5V±5%, +10V +30V,+5V +30V
Consumption:	70 mA (typical)
Output current (each channel):	40 mA max.
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 hrs min.
Option:	• Line Driver 24/5V

## MATERIALS

Flange:	anticorodal, UNI EN AW-6082 (UNI EN 573)
Housing:	anticorodal, UNI EN AW-6082 (UNI EN 573)
Bearings:	ABEC 5
Shaft and clamping ring:	1.4305 (UNI EN 10088-1)

## ACCESSORIES

LKM-1758:	Ø 10 mm shaft extension
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XC77 with LKM-1758 shaft extension

Order code

XC77	-	X a	-	XXXXX b	XXX c	X d	XX e	XX f	/Sxxx g
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**a OUTPUT CIRCUITS**  
 N = NPN o.c.  
 Y = Push Pull  
 L = Line Driver (RS422)  
 H = PP/LD universal circuit

**b RESOLUTION (PPR)**  
 See electrical specifications

**c OUTPUT SIGNALS / CONNECTION**  
 ZCU = AB0 /AB0, cable output

**d SUPPLY VOLTAGE**  
 1 = +5Vdc ±5% (L output circuit)  
 2 = +10Vdc ÷ +30Vdc (N and Y output circuits)  
 4 = +5Vdc ÷ +30Vdc (H output circuit)

**e SHAFT DIAMETER**  
 14 = 14 mm

**f CABLE LENGTH**  
 - = cable output 3 m  
 L7 = cable output 7 m  
 Lx = cable output x m  
 (3 m min., max. length 10 m)

**g CUSTOM VERSION**