

# ROTAPULS

Incremental encoder

Series

I30



- Compact incremental encoder, Ø30 mm
- Robust metal housing
- Resolution up to 2048 pulses/rev.
- Universal output circuit
- IP65 protection available
- For factory automation, packaging & electromedical



I30

## ENVIRONMENTAL SPECIFICATIONS

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:	IP54
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-25°C +85°C (-13°F +185°F) (98% R.H. without condensation)
Option:	Protection IP65 (3000 rpm max.)

## MECHANICAL SPECIFICATIONS

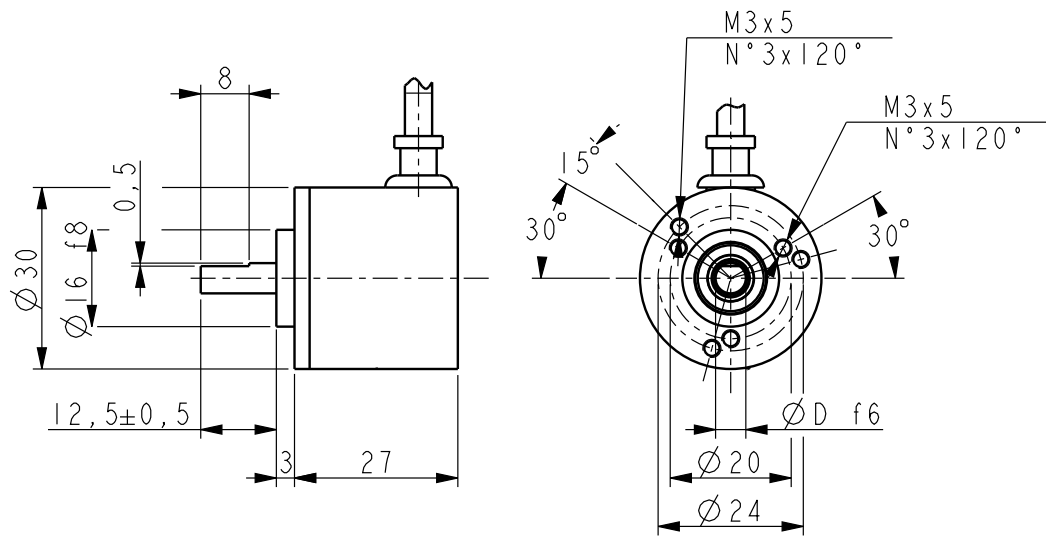
Dimensions:	see drawing
Shaft diameter:	Ø 5, 6 mm
Shaft loading (axial, radial):	20 N max.
Shaft rotational speed:	6000 rpm max. (3000 rpm max with IP65)
Starting torque (at 20°C):	0,1 Ncm (typical)
Bearings life:	10 <sup>9</sup> rev. min.
Electrical connections:	M12 8 pin inline plug or cable output 1 m (3.3 ft)
Weight:	~ 50 g (1,7 oz)
Option:	• additional cable

## ELECTRICAL SPECIFICATIONS

Resolution (PPR):	250-256-360-500-512-720-1000-1024-1440-2000-2048
Counting frequency:	100 kHz max.
Output circuits:	Push-Pull, Line Driver, Universal circuit
Power supply:	+5V±5%, +10V +30V,+5V +30V
Consumption:	70 mA max.
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.

## MATERIALS

Flange:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic, UNI EN 1.4305
Light source:	GaAl diodes



I30

## Order code

I30	-	X a	-	XXXX b	XXX c	X d	X e	X f	X g	XXX h	/Sxxx i
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## a OUTPUT CIRCUITS

Y = Push Pull  
L = Line Driver (RS422)  
H = PP/LD Universal circuit

## b RESOLUTION (PPR)

See electrical specifications

## c OUTPUT SIGNALS

BNF = AB  
BCU = AB, /AB  
ZNF = ABO  
ZCU = ABO, /ABO

## d SUPPLY VOLTAGE

1 = +5V±5% (L output circuit)  
2 = +10V÷+30V (Y output circuit)  
4 = +5V÷+30V (H output circuit)

## e SHAFT DIAMETER

5 = 5 mm  
6 = 6 mm

## f PROTECTION

- = IP54 (standard)  
P = IP65

## g CONNECTION POSITION

R = radial

## h CABLE LENGTH

L1 = cable output 1 m (standard)  
L2 = cable output 2 m  
Lx = cable output x m  
M0,5 = 0,5 m cable + M12 8 pin inline plug  
M2 = 2 m cable + M12 8 pin inline plug

## i CUSTOM VERSION