

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 ⁹ 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):	180-250-256-360-500-512-720-1000-1024-1440-2000-2048
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:	anticorodal, UNI EN AW-6082
Housing:	anticorodal, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic, UNI EN 1.4305
Light source:	GaAl diodes



I30	-	X (a)	-	XXXX (b)	XXX (c)	X (d)	X (e)	X (f)	X (g)	XXX (h)	/Sxxx (i)
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Ⓐ OUTPUT CIRCUITS Y = Push Pull L = Line Driver (RS422) H = PP/LD Universal circuit	Ⓒ OUTPUT SIGNALS BNF = AB BCU = AB, /AB ZNF = AB0 ZCU = AB0, /AB0	Ⓔ SHAFT DIAMETER 5 = 5 mm 6 = 6 mm	Ⓕ CABLE LENGTH L1 = cable output 1 m (standard) L2 = cable output 2 m Lx = cable output x m (max. length 10 m) M0,5 = 0,5 m cable + M12 8 pin inline plug M2 = 2 m cable + M12 8 pin inline plug
Ⓑ RESOLUTION (PPR) See electrical specifications	Ⓓ SUPPLY VOLTAGE 1 = +5V±5% (L output circuit) 2 = +10V÷ +30V (Y output circuit) 4 = +5V÷ +30V (H output circuit)	Ⓕ PROTECTION - = IP54 (standard) P = IP65	Ⓖ CONNECTION POSITION R = radial
			Ⓘ CUSTOM VERSION

Document release	Date	Description
1.1	19.10.2020	Resolution updated (180 PPR)