

ROTAPULS

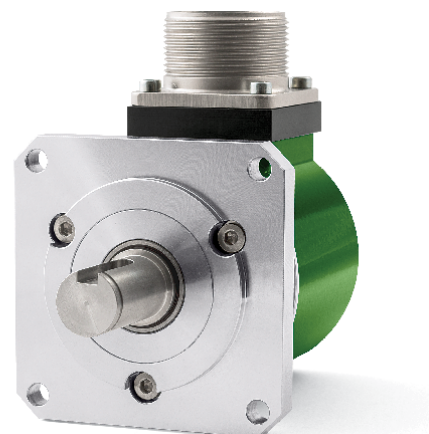
Incremental encoder

Series

IT68



- Popular machine tool encoder with increased reliability and performance
- Resolution up to 10000 PPR
- NPN, Push-Pull, Line Driver or Universal circuit
- Extended temperature range -40°C +100°C & IP66



IT68

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP66 (connector IP65)
Operating temperature range:	-40°C +100°C (-40°F +212°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H. without condensation)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 15 mm with keyway
Shaft loading (axial, radial):	100 N max.
Shaft rotational speed:	6000 rpm max.
Starting torque (at 20°C):	0,4 Ncm (typical)
Bearings life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with 20 N shaft loading max.)
Electrical connections:	MIL 10 pin, MIL 17 pin plug or cable output 1 m (3.3 ft)
Weight:	~ 500 g (17,6 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

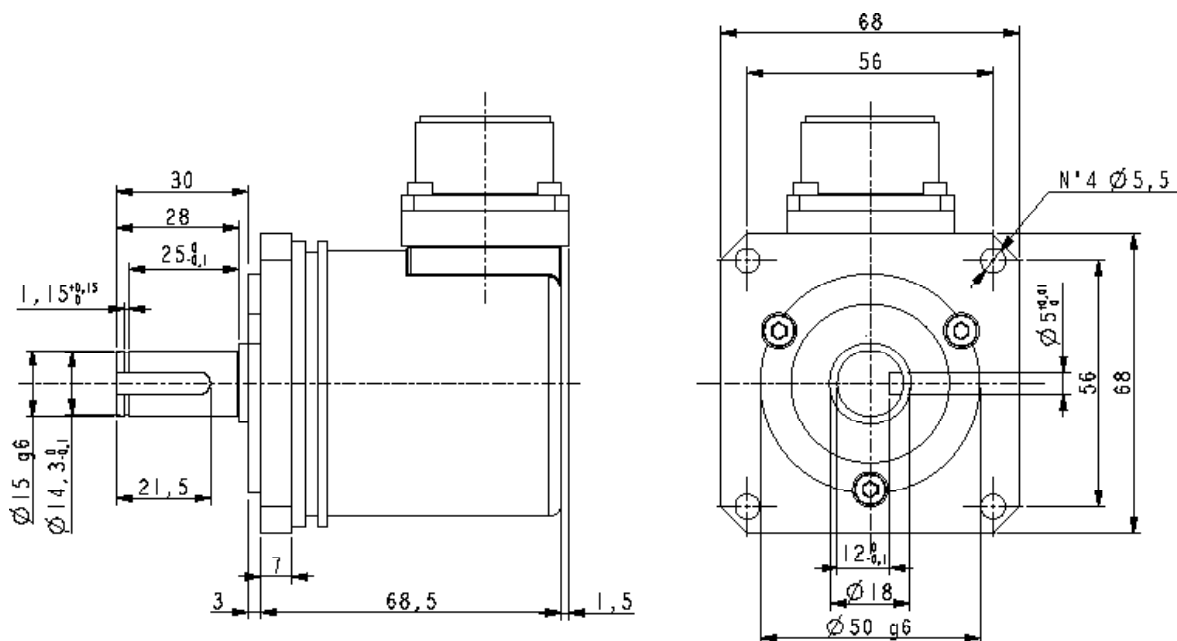
Resolution (PPR):	4-5-6-8-10-12-15-16-20-24-25-30-36-40-50-60-70-80 100-120-125-127-150-160-200-216-230-240-250-254 256-300-314-360-375-400-471-500-512-600-720-750 900-1000-1024-1068-1200-1250-1270-1400-1440 1500-1800-2000-2048-2250-2400-2500-3000-3600 4000-4096-5000-6000-8192-9000-10000
Counting frequency:	100 kHz max.
Output circuits:	NPN, PNP, 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 (except L circuit)
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 hrs min.
Option:	• Output frequency up to 300 kHz

MATERIALS

Flange:	anticorodal, UNI EN AW-6082
Housing:	zamac die cast
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic - UNI EN 4305
Light source:	GaAl diodes

ACCESSORIES

E17MLS:	17 pin MIL mating connector
E10MLS:	10 pin MIL mating connector



IT68

Order code

IT68	-	X (a)	-	XXXXX (b)	XXX (c)	X (d)	G (e)	X (f)	X (g)	X (h)	K (i)	XX (j)	/Sxxx (k)
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Ⓐ OUTPUT CIRCUITS N = NPN o.c. P = PNP o.c. Y = Push Pull L = Line Driver (RS422) H = PP/LD universal circuit	Ⓒ OUTPUT SIGNALS / CONNECTIONS ZCU = ABO /ABO, cable output ZCP = ABO /ABO, MIL 10 pin plug ZCQ = ABO /ABO, MIL 17 pin plug Ⓓ SUPPLY VOLTAGE 1 = +5V±5% (L output circuit) 2 = +10V÷ +30V (N, P and Y output circuit) 4 = +5V÷ +30V (H output circuit)	Ⓔ SHAFT DIAMETER G = 15 mm Ⓕ CONNECTION POSITION - = axial R = radial Ⓖ PROTECTION - = IP66 (standard)	Ⓗ COUNTING FREQUENCY - = 100 kHz (standard) W = 300 kHz Ⓘ OPERATING TEMPERATURE K = -40°C +100°C (-40°F +212°F) standard Ⓜ CABLE LENGTH (only with ZCU) L1 = cable output 1 m (standard) L2 = cable output 2 m Lx = cable output x m Ⓚ CUSTOM VERSION
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