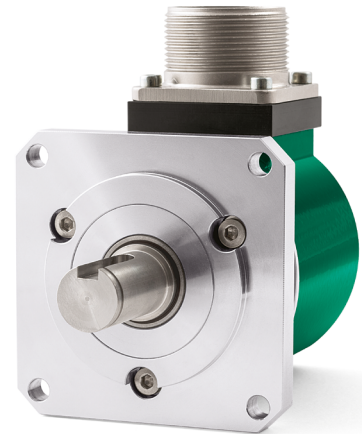




- Popular machine tool encoder with increased reliability and performance
- Resolution up to 10000 PPR
- NPN, Push-Pull, Line Driver or Universal circuit
- Extended temperature range -40°C +100°C & IP66



IT68

ENVIRONMENTAL SPECIFICATIONS

Shock:	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 (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

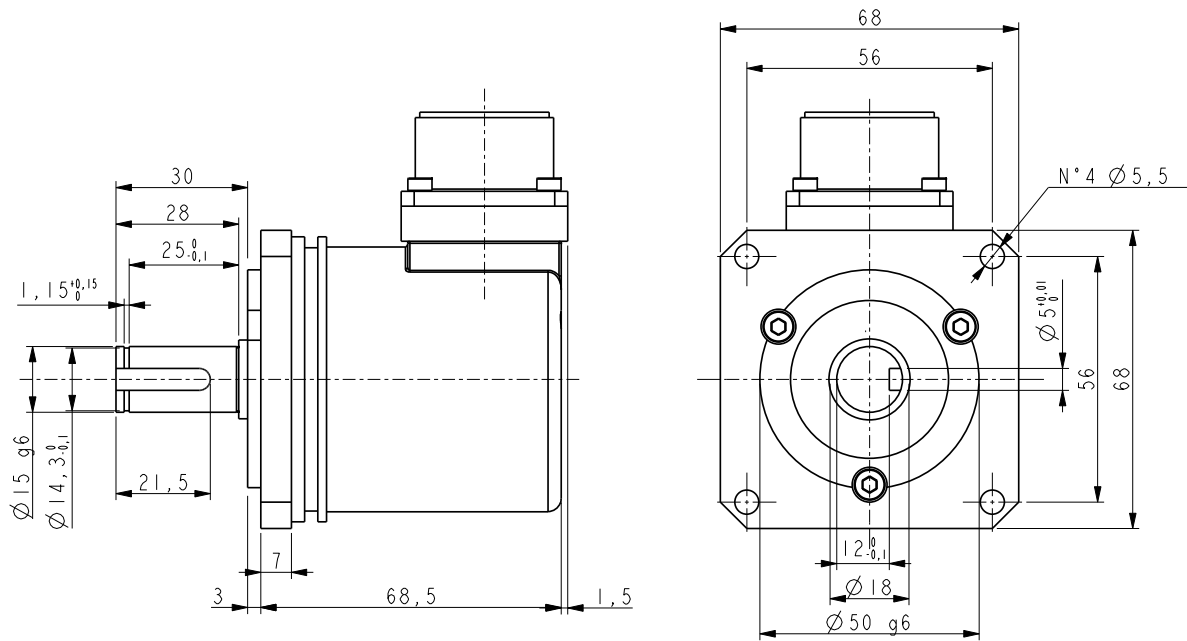
Standard resolution with magnetic sensing (PPR): <i>(output circuits N, P, Y, L, H)</i>	2-4-5-6-8-10-12-15-16-20-24-25-30-35-36-40-50-60-64-70 80-90-120-125-127-142-150-160-180-216-230-236-240-254 267-270-314-360-375-410-435-471-635-800-1068-1270 1400-2250 (other on request)
Standard resolution with unbreakable disk (PPR): <i>(output circuits N, P, Y, L, H)</i>	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): <i>(output circuits N, P, Y, L, H)</i>	5K=5000, 6K=6000, 9K=9000, 10K=10000 4KB=4096, 8KB=8192
Counting frequency:	300 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.

MATERIALS

Flange:	anticorrosive, 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 Ⓐ	-	XXXXX Ⓑ	XXX Ⓒ	X Ⓓ	G Ⓔ	X Ⓕ	X Ⓖ	K Ⓗ	XX Ⓘ	/Sxxx ⓵
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<p>Ⓐ OUTPUT CIRCUITS</p> <p>N = NPN o.c. P = PNP o.c. Y = Push Pull L = Line Driver (RS422) H = PP/LD universal circuit</p> <p>Ⓑ RESOLUTION (PPR)</p> <p>See electrical specifications</p>	<p>Ⓒ OUTPUT SIGNALS / CONNECTIONS</p> <p>ZCU = ABO /ABO, cable output ZCP = ABO /ABO, MIL 10 pin plug ZCQ = ABO /ABO, MIL 17 pin plug</p> <p>Ⓓ SUPPLY VOLTAGE</p> <p>1 = +5V±5% (L output circuit) 2 = +10V÷ +30V (N, P, Y and L output circuit) 4 = +5V÷ +30V (H output circuit)</p>	<p>Ⓔ SHAFT DIAMETER</p> <p>G = 15 mm</p> <p>Ⓕ CONNECTION POSITION</p> <p>- = axial R = radial</p> <p>Ⓖ PROTECTION</p> <p>- = IP66 (standard)</p>	<p>Ⓗ OPERATING TEMPERATURE</p> <p>K = -40°C +100°C (-40°F +212°F) standard</p> <p>Ⓖ CABLE LENGTH (only with ZCU)</p> <p>L1 = cable output 1 m (standard) L2 = cable output 2 m Lx = cable output x m</p> <p>⓵ CUSTOM VERSION</p>
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Document release	Date	Description
1.1	27.07.2021	Resolution updating and counting frequency updating