

ROTAPULS

Incremental encoder

Series

I105



- High resolution encoder for rotary & index tables
- 18000 PPR without interpolation
- Robust construction with IP65 protection
- Large operating temperature range



I105

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP64
Operating temperature range:	-20°C+70°C (-4°F +158°F) - only for 16384 PPR +10°C +60°C (50°F +140°F) - only for 18000 PPR
Storage temperature range:	-20°C+80°C (-4°F +176°F) (98% R.H. without condensation)
Options:	• Operating temp. range: -40°C +100°C (only for 16384 PPR) • IP65 protection

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft hollow:	Ø 10 mm
Shaft loading (axial and radial):	40 N max.
Shaft rotational speed:	6000 rpm max.
Starting torque at 20°C:	≤ 1 Ncm (typical)
Bearings life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with 20 N shaft loading max.)
Electrical connections:	cable output 2 m (6.56 ft)
Weight:	~ 900 g (31,7 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

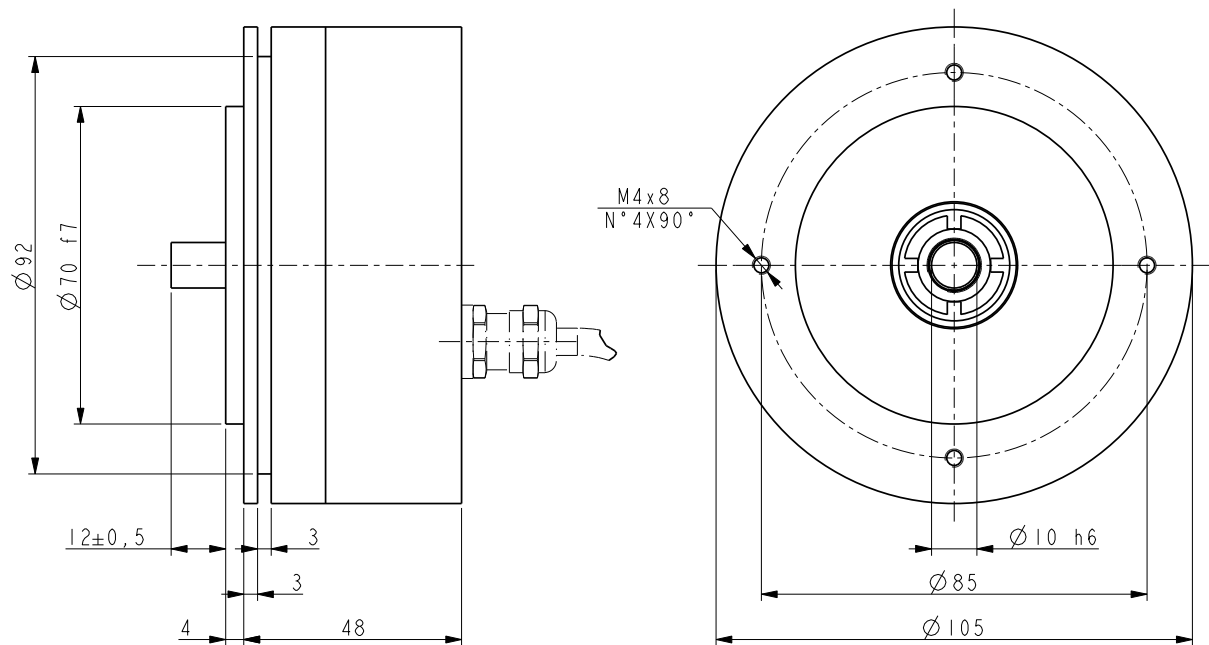
Resolution (PPR):	16384-18000
Counting frequency:	100 kHz max.
Output circuits:	Push-Pull, Line Driver, Universal circuit
Power supply:	+5V±5%, +10V +30V, +5V +30V
Consumption:	100 mA max.
Output current (per channel):	40 mA max.
Protection:	against inversion of polarity and short-circuit (except L circuit)
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 max. (only for 16384 PPR; not in combination with K option)

MATERIALS

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

ACCESSORIES

EPFL 121:	12 pin M23 mating connector
PAN/PGF:	flexible couplings
LKM-386:	fixing clamps



I105

Order code

I105	-	X ⓐ	-	XXXXX ⓑ	XXX ⓒ	X ⓓ	XX ⓔ	X ⓕ	X ⓖ	X ⓗ	XX ⓙ	/Sxxx ⓚ
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ⓐ OUTPUT CIRCUITS

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

ⓑ RESOLUTION (PPR)

See electrical specifications

ⓒ OUTPUT SIGNALS / CONNECTIONS

BCU = AB /AB, cable output
BCZ = AB /AB, M23 connector output
ZCU = ABO /ABO, cable output
ZCZ = ABO /ABO, M23 connector output

ⓓ SUPPLY VOLTAGE

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

ⓔ SHAFT DIAMETER

10 = 10 mm

ⓕ PROTECTION

- = IP64 (standard)
P = IP65

ⓖ COUNTING FREQUENCY

- = 100 kHz (standard)
W = 300 kHz
(only for 16384 PPR, not in combination with K option)

ⓗ OPERATING TEMPERATURE RANGE

- = standard (see specifications)
K = -40°C +100°C (-40°F +212°F)
(only for 16384 PPR, not in combination with W option)

ⓙ CABLE LENGTH

L2 = cable output 2 m
L7 = cable output 7 m
Lx = cable output x m

ⓚ CUSTOM VERSION