

ROTAPULS

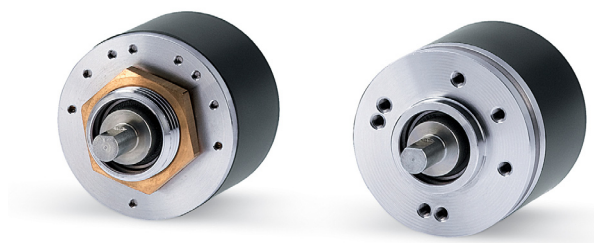
Incremental encoders

Series

I40 • I41



- Compact industrial encoders
- Preferential versions on stock
- Universal output circuit
- Up to 4096 PPR



I40-I41

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms (acc. to MIL STD 202F)
Vibrations:	10 g, 5-2000 Hz (acc. to MIL STD 202F)
Protection:	IP64
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:	• IP65, IP66 protection shaft end

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft:	Ø 6, 6.35 mm
Shaft loading (axial and radial):	20 N max.
Shaft rotational speed:	6000 rpm max.
Starting torque at 20°C:	≤ 0,3 Ncm (typical)
Bearings life:	10 ⁹ rev. min.
Weight:	~ 0,1 kg (3,5 oz)

ELECTRICAL SPECIFICATIONS

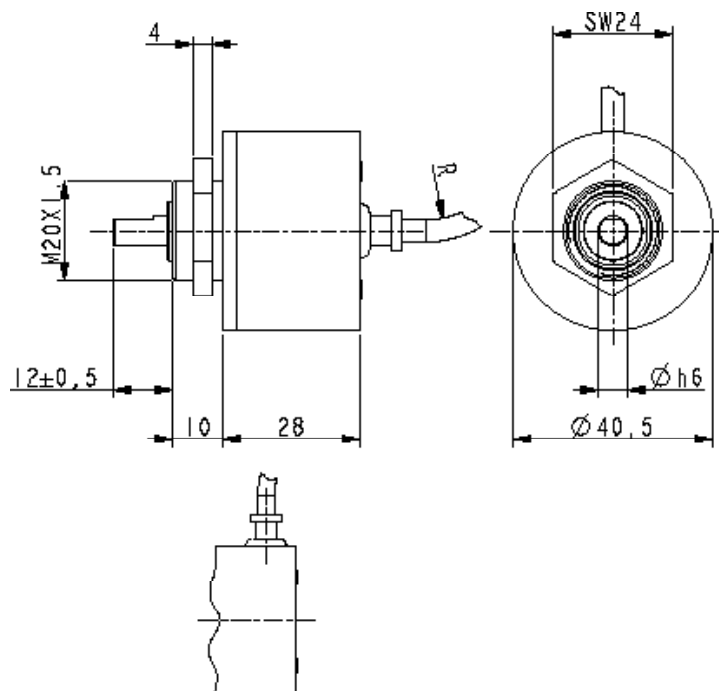
Resolution (PPR):	1-5-8-10-15-20-25-30-32-40-50-60-64-72-84-90 100-125-127-150-176-180-200-250-256-300-314 320-360-400-500-512-600-625-635-720-900-1000 1024-1080-1200-1250-1440-1500-1600-1800-2000 2048-2500-3000-3600-4096
Counting frequency:	50 kHz max.
Output circuits:	NPN, PNP, Push-Pull, Line Driver, Universal circuit
Power supply:	+5V±5%, +10V +30V, +5V +30V
Consumption:	50 mA max.
Output current (per channel):	40 mA max.
Protection:	against inversion of polarity and shortcut (except L circuit)
EMC:	electro-magnetic emission (according to EN 61000-6-4) electro-magnetic immunity (according to EN 61000-6-2)
Optoelectronic life:	100.000 hrs min.

MATERIALS

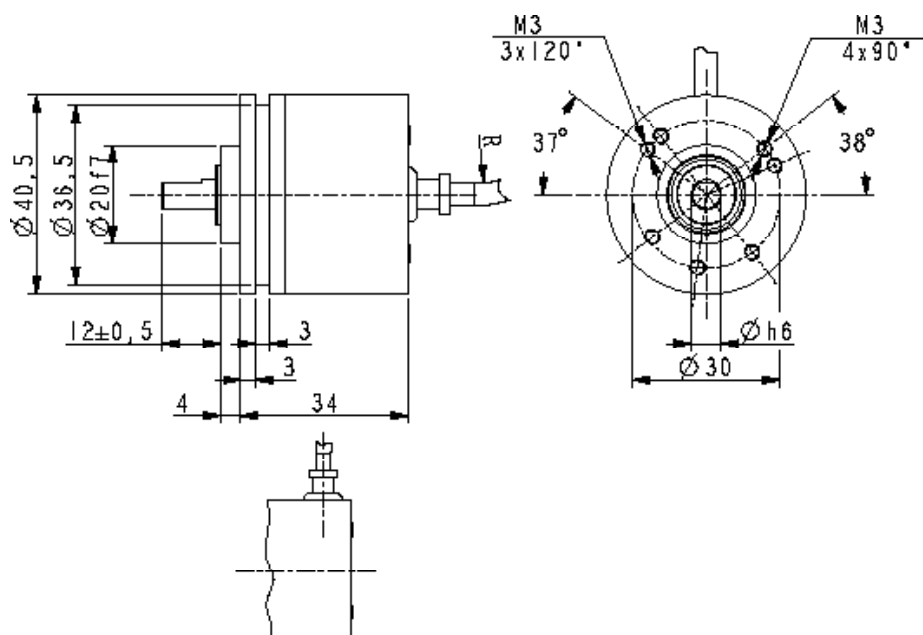
Flange:	non corroding, UNI EN AW-6082
Housing:	fibre glass epoxy resin
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic, UNI EN 4305
Light source:	GaAl diodes

ACCESSORIES

EDE9S:	9 pin DSub mating connector
PAN/PGF:	flexible couplings
LKM-386:	fixing clamps



I40



I41

Order code

Additional code (optional)

I40	-	X	-	XXXX	XXX	X	XX	X	X	XX	X	/Sxxx
I41		(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)

a) OUTPUT CIRCUITS

N = NPN o.c.
P = PNP o.c.
Y = Push Pull
L = Line Driver (RS422)
H = PP/LD universal circuit

b) RESOLUTION (PPR)

See electrical specifications

c) OUTPUT SIGNAL

BNF = AB
BCU = AB, /AB
ZNF = AB0
ZCU = AB0, /AB0

d) POWER SUPPLY

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

e) SHAFT DIAMETER

6 = 6 mm
P6 = 6.35 mm - 1/4"

f) PROTECTION

- = IP64
P = IP65
Q = IP66 protection shaft side (only I41)

g) CONNECTION POSITION

- = axial
R = radial

h) CONNECTIONS

- = 1 m cable
L2 = 2 m cable
Lx = x m cable

i) C = Inline connector DSub 9 pin

j) CUSTOM VERSION