ROTAPULS
Incremental encoders

Series **I40 • I41**

- Compact industrial encoders
- Preferential versions with fast delivery
- Universal output circuit HTL/TTL
- High resolution up to 4096 PPR

I41 • I40

ENVIRONMENTAL SPECIFICATIONS	
Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
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 diameter:	Ø 6, 6.35, 8 mm
Shaft loading (axial, radial):	20 N max.
Shaft rotational speed:	6000 rpm max.
Starting torque (at 20°C):	0,1 Ncm (typical)
Bearings life:	10^9 rev. min.
Electrical connections:	cable output 1 m (3.3 ft)
Weight:	~ 100 g (3,5 oz)
Option:	• additional cable

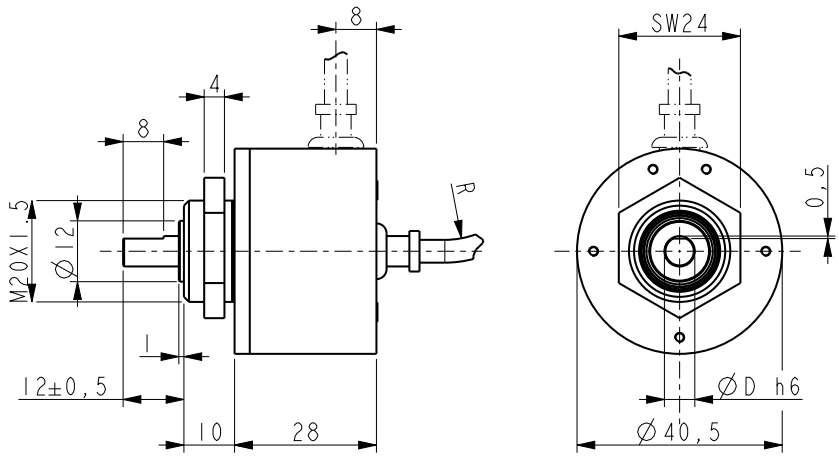
ELECTRICAL SPECIFICATIONS	
Resolution (PPR): *(*) not available for I40 series*	1-2-5-8-10-15-30-32-40-50-60-72-84-90-100-120 150-180-200-250-256-300-360-400-500-512-600-720 900-1000(*)-1024(*)-1440-1800-2000(*)-2048(*)-2400 2880-4000(*)-4096(*)
Counting frequency:	50 ÷ 100 kHz max.
Output circuits:	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.

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

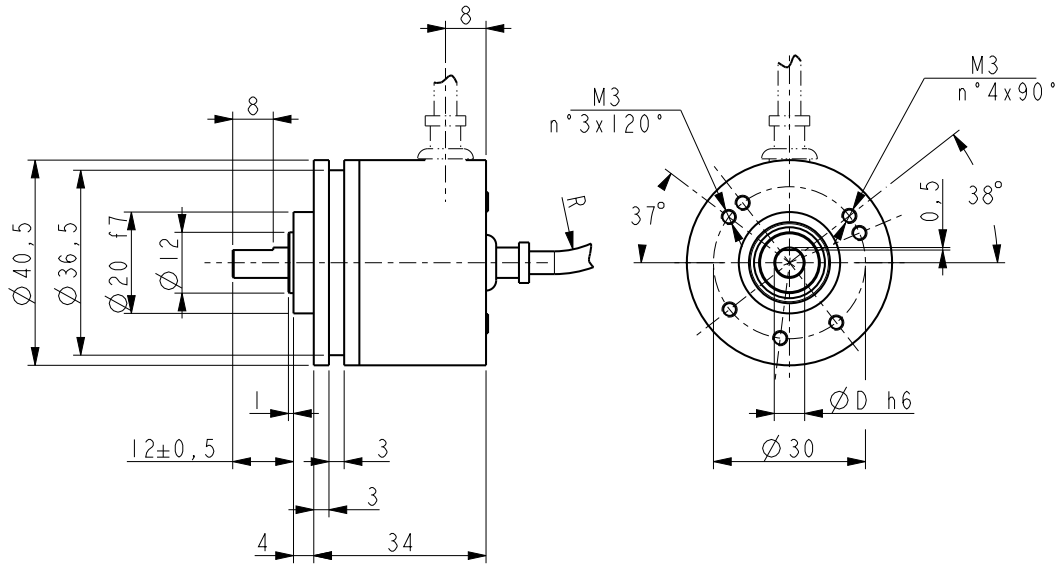
PREFERENTIAL MODELS	
I41-H-100ZCU46L2	100 PPR, HTL/TTL output
I41-H-200ZCU46L2	200 PPR, HTL/TTL output
I41-H-360ZCU46L2	360 PPR, HTL/TTL output
I41-H-500ZCU46L2	500 PPR, HTL/TTL output
I41-H-1000ZCU46L2	1000 PPR, HTL/TTL output
I41-H-1024ZCU46L2	1024 PPR, HTL/TTL output

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

Specifications subject to changes without prior notice



I40



I41

Order code

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

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

ⓑ **RESOLUTION (PPR)**
See electrical specifications

ⓒ **OUTPUT SIGNAL**
BNF = AB
BCU = AB, /AB
ZNF = AB0
ZCU = AB0, /AB0

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

ⓔ **SHAFT DIAMETER**
6 = 6 mm
P6 = 6.35 mm - 1/4"
8 = 8 mm

ⓕ **PROTECTION**
- = IP64
P = IP65
Q = IP66 shaft side (only I41)

ⓖ **CONNECTION POSITION**
- = axial
R = radial

ⓗ **CABLE LENGTH**
- = cable output 1 m (standard)
L2 = cable output 2 m
Lx = cable output x m
CLx = x m cable with DSub 9 pin inline plug

ⓘ **CUSTOM VERSION**

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