

# ROTAPULS

Incremental encoders

Series

I40 • I41 • CK41 • CK46



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



I41 • I40



CK46 • CK41

## 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 (only I41)

## 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 <sup>9</sup> rev. min.
Electrical connections:	cable output 1 m (3.3 ft)
Weight:	~ 100 g (3,5 oz)
Option:	• additional cable • DSub 9 pin inline connector • M12 plug

## ELECTRICAL SPECIFICATIONS

Resolution (PPR):	1-2-5-8-10-15-30-32-40-50-60-72-84-90-100 (other resolutions on request)
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
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 hrs min.

## MATERIALS

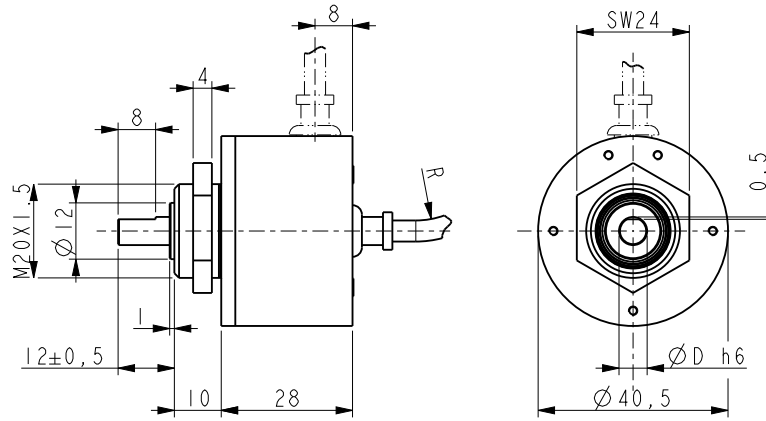
Flange:	anticorrosive, UNI EN AW-6082
Housing:	fibre glass epoxy resin
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic, UNI EN 4305

## PREFERENTIAL MODELS

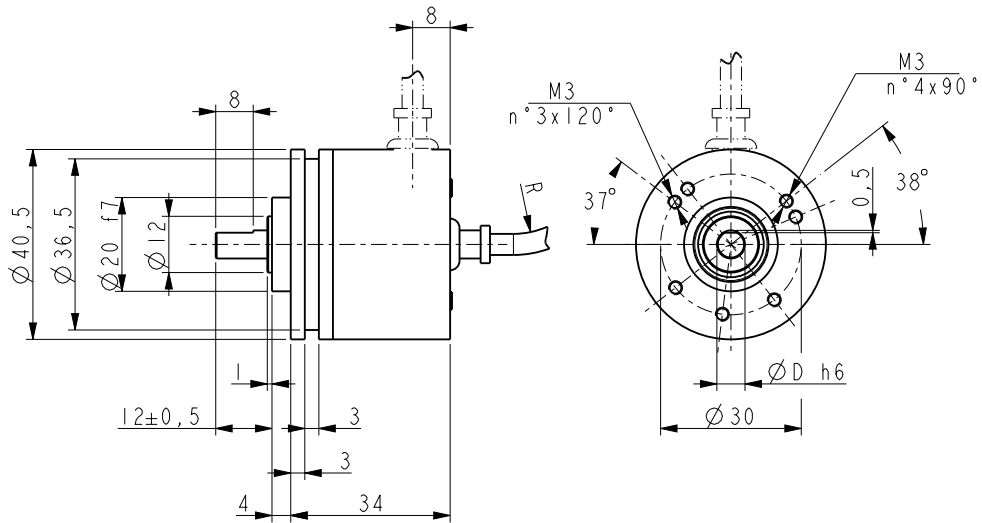
I41-H-100ZCU46L2	100 PPR, HTL/TTL output
I41-H-200ZCU46L2	200 PPR, HTL/TTL output
I41-H-360ZCU46L2	360 PPR, HTL/TTL output
I41-H-500ZCU46L2	500 PPR, HTL/TTL output
I41-H-1000ZCU46L2	1000 PPR, HTL/TTL output
I41-H-1024ZCU46L2	1024 PPR, HTL/TTL output
CK41-H-100ZCU46L2	100 PPR, HTL/TTL output
CK41-H-200ZCU46L2	200 PPR, HTL/TTL output
CK41-H-360ZCU46L2	360 PPR, HTL/TTL output
CK41-H-500ZCU46L2	500 PPR, HTL/TTL output
CK41-H-1000ZCU46L2	1000 PPR, HTL/TTL output
CK41-H-1024ZCU46L2	1024 PPR, HTL/TTL output
CK41-H-2000ZCU46L2	2000 PPR, HTL/TTL output
CK41-H-2048ZCU46L2	2048 PPR, HTL/TTL output

## ACCESSORIES

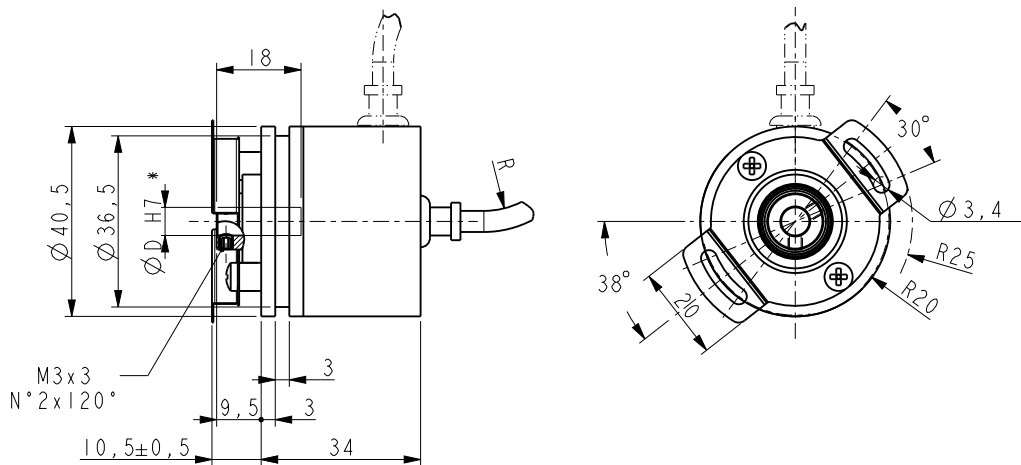
EDE9S:	9 pin DSub mating connector
EM12F8:	M12 8 pin mating connector
PAN/PGF:	flexible couplings
LKM-386:	fixing clamps



I40

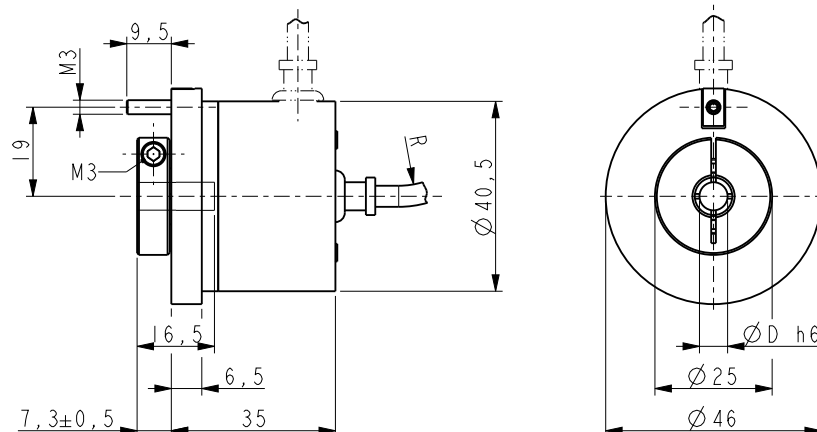


I41



\*  $\varnothing 8$  bore depth = 9mm

CK41



CK46

## Order code

I40 I41	-	X Ⓐ	-	XXXX Ⓑ	XXX Ⓒ	X Ⓓ	XX Ⓔ	X Ⓕ	X Ⓖ	XX Ⓗ	/Sxxx Ⓘ
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<b>Ⓐ OUTPUT CIRCUITS</b> N = NPN o.c. P = PNP o.c. Y = Push Pull L = Line Driver (RS422) H = PP/LD universal circuit  <b>Ⓑ RESOLUTION (PPR)</b> See electrical specifications	<b>Ⓒ OUTPUT SIGNAL</b> BNF = AB BCU = AB, /AB ZNF = ABO ZCU = ABO, /ABO  <b>Ⓓ POWER SUPPLY</b> 1 = +5V±5% (L output circuit) 2 = +10V÷ +30V (Y, N, P output circuit) 4 = +5V÷ +30V (H output circuit)	<b>Ⓔ SHAFT DIAMETER</b> 6 = 6 mm P6 = 6.35 mm - 1/4" 8 = 8 mm  <b>Ⓕ PROTECTION</b> - = IP64 P = IP65 Q = IP66 shaft side (only I41)	<b>Ⓖ CONNECTION POSITION</b> - = axial R = radial  <b>Ⓗ CABLE LENGTH</b> - = cable output 1 m (standard) L2 = cable output 2 m Lx = cable output x m (max. length 10 m) CLx = x m cable with DSub 9 pin inline plug M0,5 = 0,5 m cable + M12 8 pin inline plug M2 = 2 m cable + M12 8 pin inline plug  <b>Ⓘ CUSTOM VERSION</b>
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## Order code

CK41 CK46	-	X Ⓐ	-	XXXX Ⓑ	XXX Ⓒ	X Ⓓ	XX Ⓔ	X Ⓕ	X Ⓖ	XX Ⓗ	/Sxxx Ⓘ
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