

ROTAPULS

Incremental encoders

Series

CK41 • CK46

- Compact hollow shaft encoders
- Preferential versions with fast delivery
- Universal output circuit
- Resolution up to 4096 PPR



CK46 • CK41

ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
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)
Protection:	IP64
Option:	• IP65 protection (3000 rpm max, torque 1 Ncm)

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)
Options:	• additional cable • DSub 9 pin inline connector

ELECTRICAL SPECIFICATIONS

Resolution (PPR):	1-2-5-8-10-15-20-30-32-40-50-60-72-84-90-100-120 125-150-180-200-250-256-300-360-400-500-512-600 720-900-1000(*)-1024-1200-1440-1500-1800-2000(*) 2048(*)-2400-2880-4000(*)-4096(*)
(*) not available for CK46 series	
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

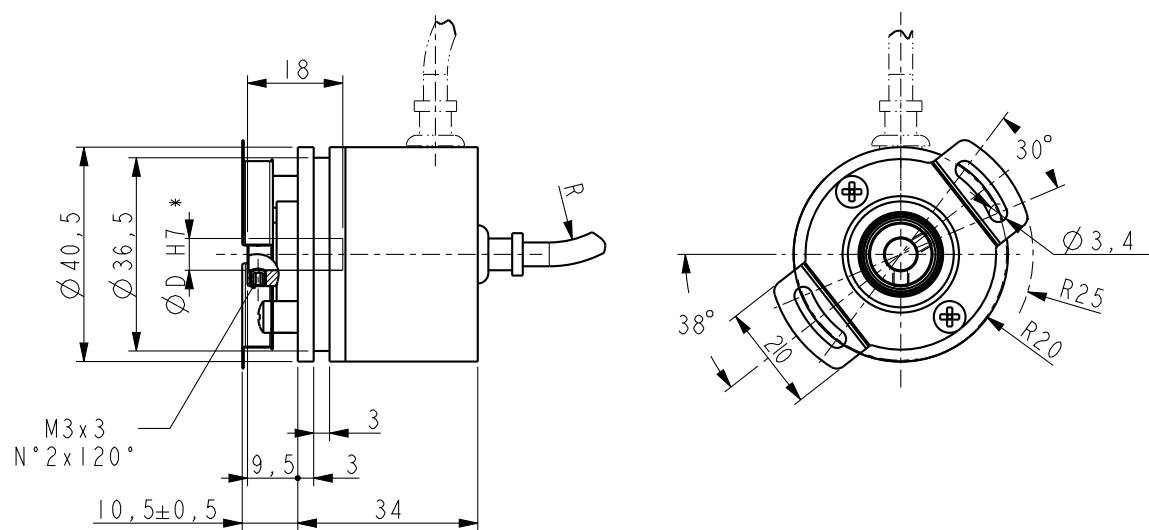
Flange:	anticorrosive, UNI EN AW-6082
Housing:	fibre glass epoxy resin
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic, UNI EN 4305
Light source:	GaAl diodes

PREFERENTIAL MODELS

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

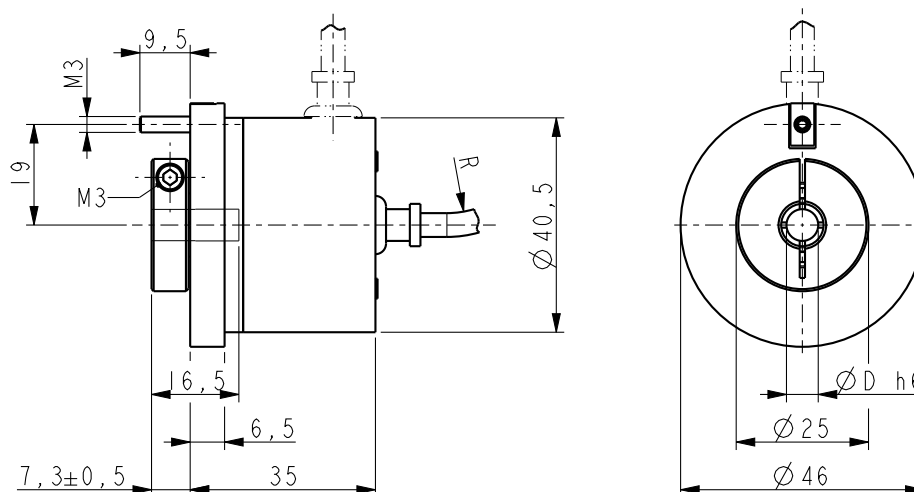
ACCESSORIES

EDE9S:	9 pin DSub mating connector
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* $\varnothing 8$ bore depth = 9mm

CK41



CK46

Order code

CK41	-	X	-	XXXX	XXX	X	XX	X	X	XX	/Sxxx
CK46		(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)

(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 SIGNALS

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

(d) POWER SUPPLY

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

(e) SHAFT DIAMETER

6 = 6 mm
P6 = 6.35 mm - 1/4"
8 = 8 mm (only CK41)

(f) PROTECTION

- = IP64 (standard)
P = IP65

(g) CONNECTION POSITION

- = axial (standard)
R = radial

(h) 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

(i) CUSTOM VERSION