

ROTAPULS

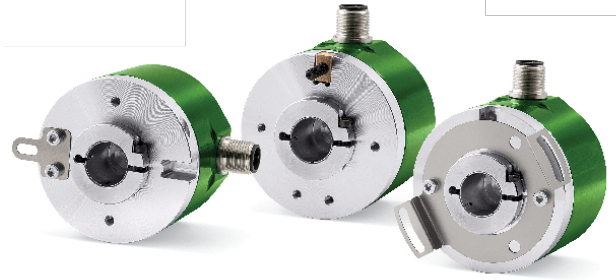
Incremental encoders

Series

CK58 • CK59 • CK60



- Standard encoder for heavy industrial applications
- Blind hollow shaft up to Ø 15 mm
- Connector or cable output
- ABO or sine/cosine signals



CK60 • CK58 • CK59

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)
Options:	<ul style="list-style-type: none"> • Operating temperature range: -40°C +100°C (-40°F +212°F) • IP65 Protection (typ. 3000 rpm / 6000 temporary)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	14, 15 mm
Reducing sleeves from Ø 15 mm to:	Ø 6, 8, 9,52, 10, 11, 12 mm
Shaft loading (axial, radial):	50 N max.
Shaft rotational speed:	typ. 6000 rpm / 12000 temporary
Starting torque (at 20°C):	0,4 Ncm (typical)
Bearings life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with 20 N shaft loading max.)
Electrical connections:	M12, M23 plug or cable output 1 m (3.3 ft)
Weight:	~ 200 g (7 oz)
Options:	<ul style="list-style-type: none"> • additional cable • DSub 9 pin inline plug

ELECTRICAL SPECIFICATIONS

Resolution (PPR): (output circuit N, P, Y, L, H)	4-5-6-8-10-12-15-16-20-24-25-30-36-40-50-60-70-80 100-120-125-127-150-160-200-216-230-240-250-254-256 300-314-360-375-400-471-500-512-600-720-750-900 1000-1024-1068-1200-1250-1270-1400-1440-1500-1800 2000-2048-2250-2400-2500-3000-3600-4000-4096-5000 6000-8192-9000-10000
Resolution (PPR): (output circuit V)	500-512-1000-1024-1250-2000-2048-2500
Counting frequency:	100 kHz max.
Output circuits:	NPN, PNP, Push-Pull, Line Driver, Universal circuit, Sine/cosine
Power supply:	+5V±5%, +10V +30V, +5V +30V (sine/cosine only +5V±5%)
Consumption:	70 mA (typical)
Output current (each channel):	40 mA max.
Protection:	against inversion of polarity and short-circuit (except L and V circuit)
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 hrs min.
Option:	<ul style="list-style-type: none"> • Counting frequency up to 300 kHz • Line Driver 24/5V

MATERIALS

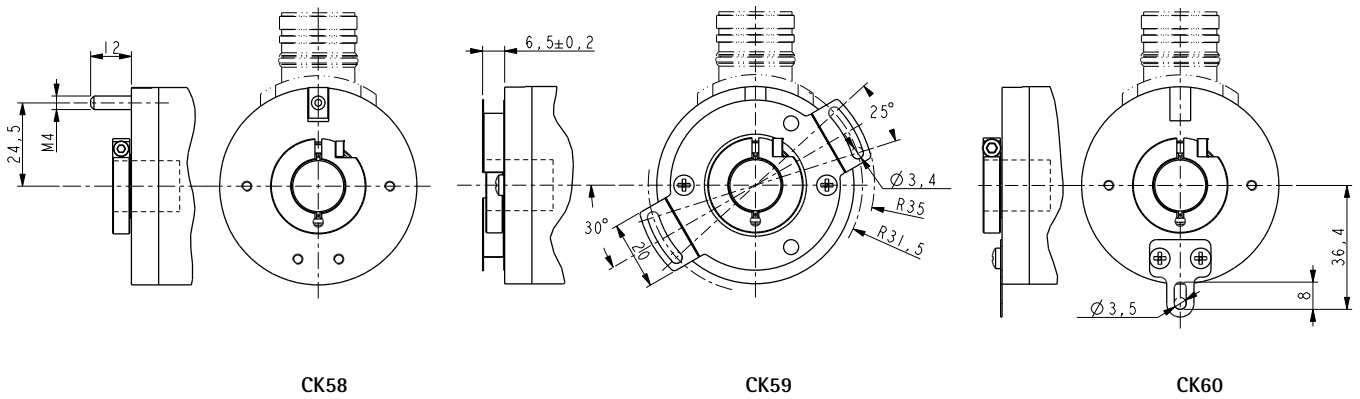
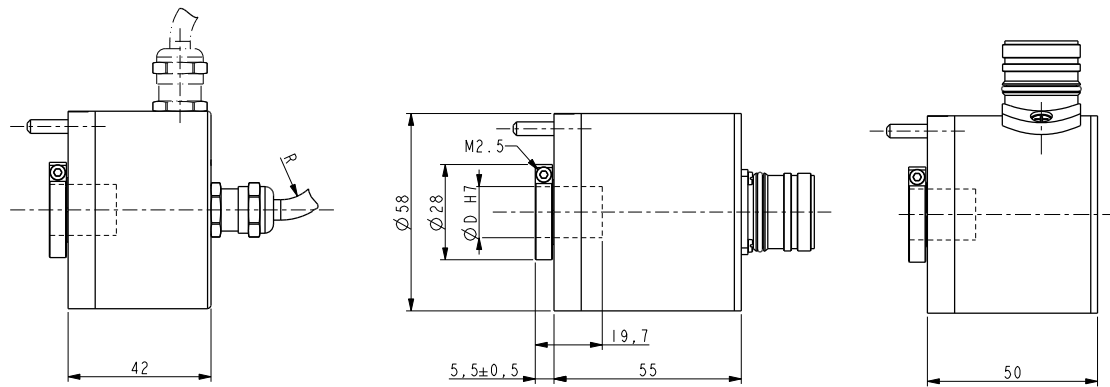
Flange:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic - UNI EN 4305
Light source:	GaAl diodes

PREFERENTIAL MODELS

CK58-H-500ZCU415R	500 PPR, HTL/TTL output
CK58-H-1000ZCU415R	1000 PPR, HTL/TTL output
CK58-H-1024ZCU415R	1024 PPR, HTL/TTL output
CK58-H-2048ZCU415R	2048 PPR, HTL/TTL output

ACCESSORIES

EPFL 121:	12 pin M23 mating connector
EC-C12F-LK-18-x:	cordset x meter with M23 conn.
EC-M12F8-LK-M8-5:	cordset 5 meters with M12 conn.
EDE9S:	9 pin DSub mating connector
BR1:	Reducing sleeves



CK58

CK59

CK60

Order code

CK58	-	X	-	XXXXX	XXX	X	XX	X	X	X	X	XX	/Sxxx
CK59		(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
CK60													

(a) OUTPUT CIRCUITS

N = NPN o.c.
 P = PNP o.c.
 Y = Push Pull
 L = Line Driver (RS422)
 H = PP/LD universal circuit
 V = 1 Vpp sine/cosine

(b) RESOLUTION (PPR)

See electrical specifications

(c) OUTPUT SIGNALS / CONNECTIONS

BNF = AB, cable output (except V output)
 ZNF = ABO, cable output (except V output)
 BCU = AB /AB, cable output
 ZCU = ABO /ABO, cable output
 BCZ = AB /AB, M23 12 pin plug
 ZCZ = ABO /ABO, M23 12 pin plug
 ZCM = ABO /ABO, M12 8 pin plug

(d) SUPPLY VOLTAGE

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

(e) SHAFT DIAMETER

14 = 14 mm
 15 = 15 mm

(f) CONNECTION POSITION

- = axial
 R = radial

(g) PROTECTION

- = IP64 (standard)
 P = IP65

(h) COUNTING FREQUENCY

- = 100 kHz (standard)
 W = 300 kHz

(i) OPERATING TEMPERATURE

- = -25°C +85°C (-13°F +185°F) standard
 K = -40°C +100°C (-40°F +212°F)

(j) 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

(k) CUSTOM VERSION