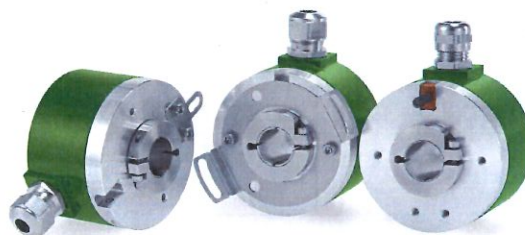


# ROTAPULS

Incremental encoders

Series

CK58 • CK59 • CK60



CK58-CK59-CK60

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

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

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	14, 15 mm
Reducing sleeves from $\varnothing$ 15 mm to:	$\varnothing$ 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:	$\leq$ 1 Ncm (typical)
Bearings life:	10 <sup>9</sup> rev. min.
Weight:	$\sim$ 0,3 kg (10,6 oz)
Electrical connections:	M23 connector or cable output 1 m (3.3 ft)
Options:	<ul style="list-style-type: none"> <li>• additional cable</li> <li>• DSub 9 pin inline connector</li> </ul>

## ELECTRICAL SPECIFICATIONS

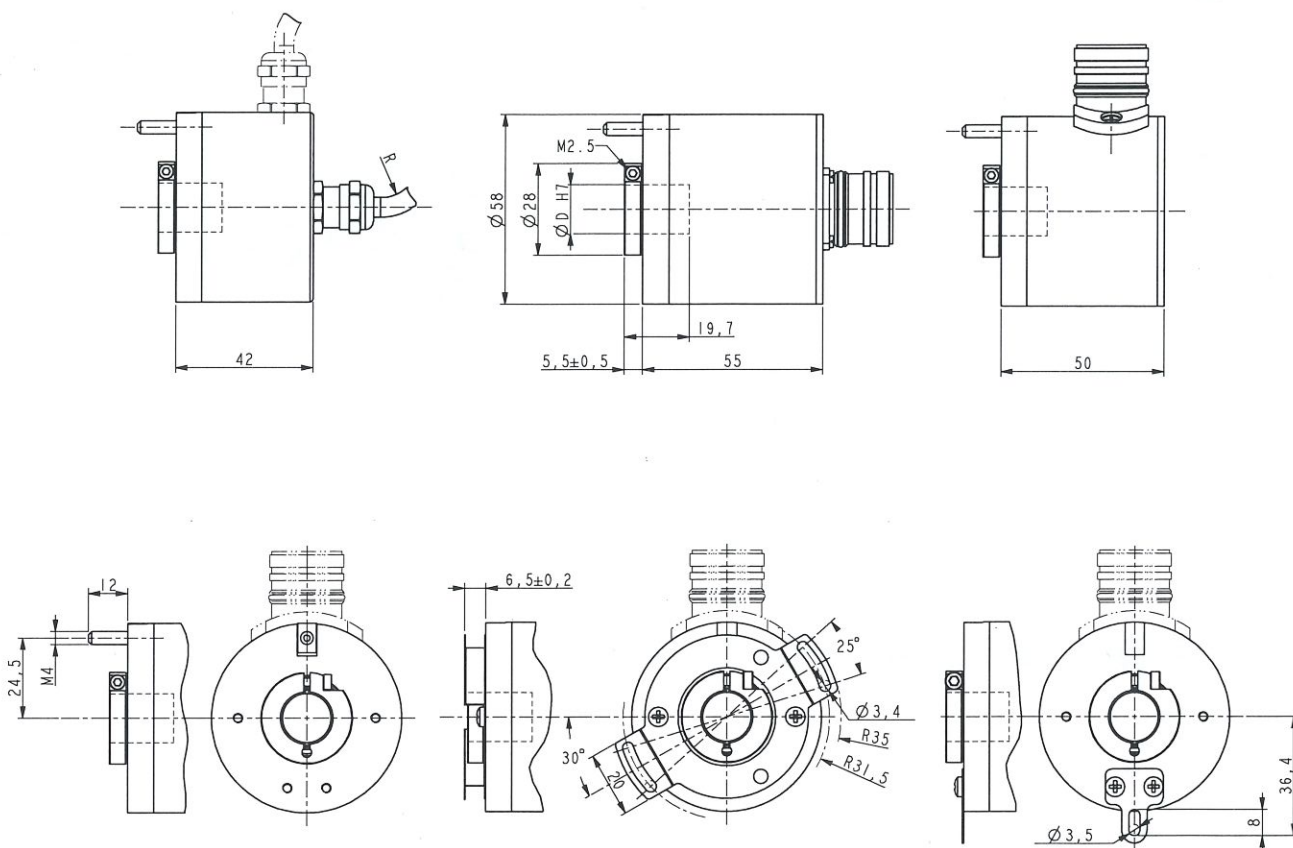
Resolution (PPR):	2-4-5-6-10-12-15-16-18-20-24-25-30-35-36-39-40
(output circuit N, P, Y, L, H)	45-50-60-64-70-80-90-100-120-122-125-127-128 160-142-150-180-200-216-236-240-250-254-256 267-270-300-314-360-375-400-410-433-435-471 500-512-600-625-628-635-720-750-784-800-875 900-946-1000-1024-1068-1200-1250-1270 1440-1500-1800-2000-2048-2250-2400-2500-2600 2700-3000-3500-3600-4000-4096-5000-6000-6350-7200-8192 9000-10000
Resolution (PPR):	500-512-1000-1024-1250-2000-2048-2500
(output circuit V)	
Counting frequency:	100 kHz max.
Output circuits:	NPN, PNP, Push-Pull, Line Driver, Universal circuit, Sine/cosine
Power supply:	+5V $\pm$ 5%, +10V +30V, +5V +30V (sine/cosine only +5V $\pm$ 5%)
Consumption:	typ. 70 mA, 100 mA max.
Output current (each channel):	40 mA max.
Protection:	against inversion of polarity and against shortcut (except L, V output)
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.
Option:	<ul style="list-style-type: none"> <li>• Counting frequency up to 300 kHz</li> <li>• Line Driver 24/5V</li> </ul>

## MATERIALS

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

## ACCESSORIES

EPFL 121:	12 pin M23 mating connector
EC-C12F-LK-I8-x:	cordset x meter, M23 connector
BR1-xx:	reducing sleeves
EDE 9S:	9 pin DSub mating connector



CK58-CK59-CK60

Order code

Additional code (optional)

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		V		2048	ZCU	1	14	R					

<p><b>(a) OUTPUT CIRCUITS</b></p> <p>N = NPN  P = PNP  Y = Push Pull  L = Line Driver (RS422)  H = PP/LD universal circuit  V = 1 Vpp sine/cosine</p> <p><b>(b) PULSE RATE (PPR)</b>  See electrical specifications  2048</p>	<p><b>(c) OUTPUT SIGNALS</b></p> <p>BNF = AB, cable output  ZNF = ABO, cable output  BCU = AB /AB, cable output  ZCU = ABO /ABO, cable output  BCZ = AB /AB, M23 connector output  ZCZ = ABO /ABO, M23 connector output</p> <p><b>(d) SUPPLY VOLTAGE</b></p> <p>1 = +5V ± 5% (L, V output circuit)  2 = +10V ÷ +30V (N, P, Y output circuit)  4 = +5V ÷ +30V (H output circuit)</p>	<p><b>(e) SHAFT DIAMETER</b></p> <p>14 = 14 mm  15 = 15 mm</p> <p><b>(f) CONNECTION POSITION</b></p> <p>- = axial  R = radial</p> <p><b>(g) PROTECTION</b></p> <p>- = IP64 (standard)  P = IP65</p>	<p><b>(h) COUNTING FREQUENCY</b></p> <p>- = 100 kHz (standard)  W = 300 kHz</p> <p><b>(i) OPERATING TEMPERATURE</b></p> <p>- = -25°C +85°C (-13°F +185°F) standard  K = -40°C +100°C (-40°F +212°F)</p> <p><b>(j) CABLE LENGTH</b></p> <p>- = 1 m cable (standard)  L2 = 2 m cable  Lx = x m cable  CLx = x m cable with DSub 9 pin inline plug</p> <p><b>(k) CUSTOM VERSION</b></p>
---	---	---	--