

# ROTAPULS

Incremental encoders

Series

C58 • C59 • C60



- Compact through hollow shaft encoders
- M23, M12 connector or cable output
- Ø15 or Ø14 mm shaft, other diameters with reduction sleeves
- Universal output circuit PP/LD



C60 • C58 • C59

## 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"> <li>• Operating temperature range: -40°C +100°C (-40°F +212°F)</li> <li>• IP65 Protection (3000 rpm max, torque 1 Ncm)</li> </ul>

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	Ø 14, 15 mm
Shaft loading (axial, radial):	30 N max.
Shaft rotational speed:	6000 rpm max.
Starting torque at 20°C:	1 Ncm (typical)
Bearings life:	400 x 10 <sup>6</sup> rev. min. (10 <sup>9</sup> rev. min. with 20 N shaft loading max.)
Electrical connections:	M12, M23 plug or cable output 1 m (3.3 ft)
Weight:	~ 150 g (5,2 oz)
Option:	• additional cable

## ELECTRICAL SPECIFICATIONS

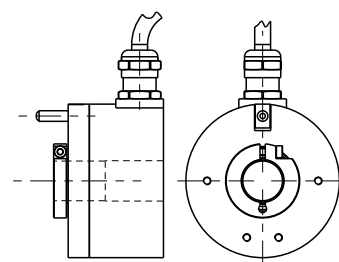
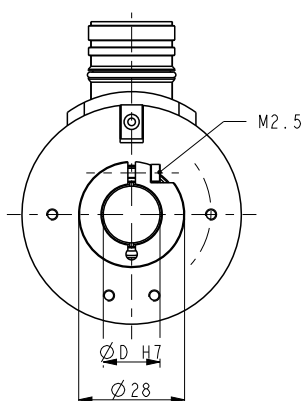
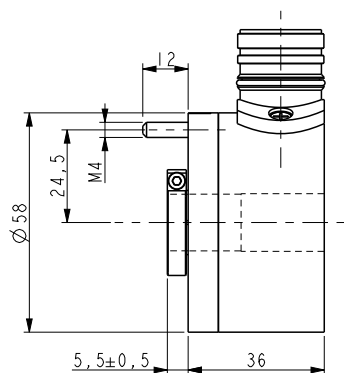
Resolution (PPR):	4-5-10-12-15-16-24-25-30-36-40-45-50-60-70 80-90-100-120-125-142-150-200-236-250-256-267 300-314-360-400-433-435-471-500-600-635-720 784-875-900-1000-1024-1250-1800-2000-2048-2500 3600-4000-4096-5000
Counting frequency:	100 kHz max.
Output circuits:	Push-Pull, Line Driver, Universal circuit
Power supply:	+5V±5%, +10V +30V, +5V +30V
Consumption:	70 mA (typical)
Output current (per 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.
Option:	counting frequency up to 300 kHz

## MATERIALS

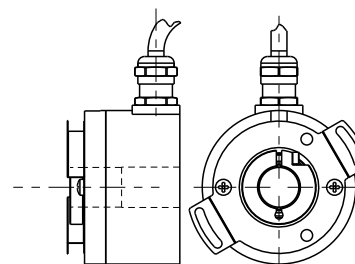
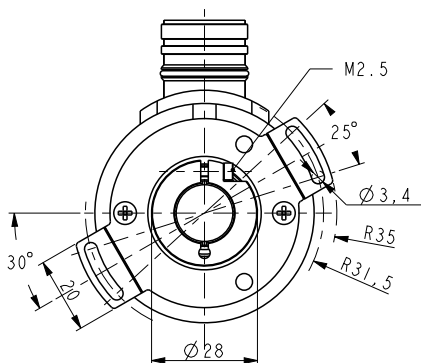
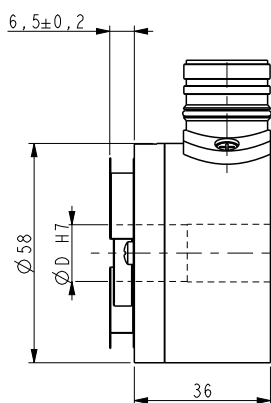
Flange:	anticorrosional, UNI EN AW-6082
Housing:	anticorrosional, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic - UNI EN 4305
Light source:	GaAl diodes

## ACCESSORIES

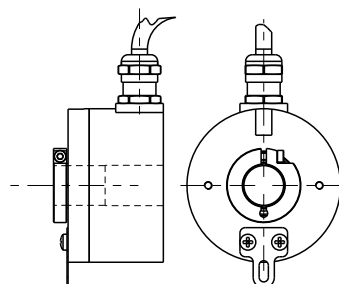
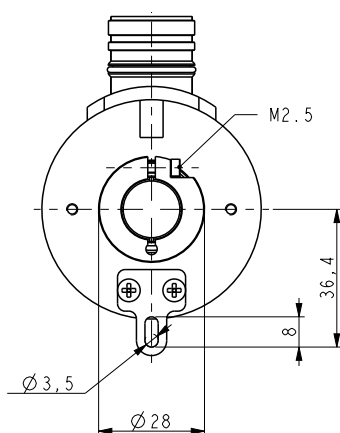
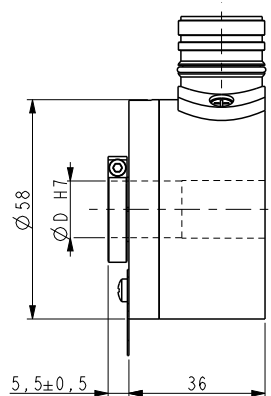
EPFL 121:	12 pin M23 mating connector
EC-C12F-LK-I8-x:	cordset x meter with M23 conn.
EC-M12F8-LK-M8-5:	cordset 5 meters with M12 conn.
EDE9S:	9 pin DSub mating connector
BR1:	Reducing sleeves



C58



C59



C60

Order code

C58	-	X	-	XXXXX	XXX	X	XX	X	X	X	XX	/Sxxx
C59		Ⓐ		Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	Ⓘ	⓵
C60												

<p><b>Ⓐ OUTPUT CIRCUITS</b>                  Y = Push Pull                  L = Line Driver (RS422)                  H = PP/LD universal circuit</p> <p><b>Ⓑ RESOLUTION (PPR)</b>                  See electrical specifications</p>	<p><b>Ⓒ OUTPUT SIGNALS / CONNECTIONS</b>                  BNF = AB cable output                  BCU = AB, /AB cable output                  ZNF = ABO 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</p> <p><b>Ⓓ SUPPLY VOLTAGE</b>                  1 = +5V±5% (L output circuit)                  2 = +10V÷ +30V (Y output circuit)                  4 = +5V÷ +30V (H output circuit)</p>	<p><b>Ⓔ SHAFT DIAMETER</b>                  14 = 14 mm                  15 = 15 mm</p> <p><b>Ⓕ PROTECTION</b>                  - = IP64 (standard)                  P = IP65</p> <p><b>Ⓖ COUNTING FREQUENCY</b>                  - = 100 kHz (standard)                  W = 300 kHz</p>	<p><b>Ⓗ OPERATING TEMPERATURE</b>                  - = -25°C +85°C (-13°F +185°F) standard                  K = -40°C +100°C (-40°F +212°F)</p> <p><b>Ⓘ CABLE LENGTH (not with BCZ, ZCZ, ZCM)</b>                  - = 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</p> <p><b>⓵ CUSTOM VERSION</b></p>
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