

## Incremental encoders

### Through hollow shaft $\varnothing 120$ to $\varnothing 150$ mm



RCI 300 Version with terminal box

#### Technical data - electrical ratings

Voltage supply	9...26 VDC 5 VDC $\pm 5$ %
Consumption w/o load	$\leq 100$ mA
Pulses per revolution	1024...2048
Phase shift	$90^\circ \pm 20^\circ$
Scan ratio	40...60 %
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 120$ kHz
Output signals	K1, K2, K0 + inverted
Output stages	HTL TTL/RS422
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approvals	CE, UL approval / E256710

#### Features

- Through hollow shaft  $\varnothing 120$ ... $150$  mm
- Optical sensing method
- Robust light-metal housing
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC
- Big terminal box, turn by  $180^\circ$

#### Optional

- With earthing brushes (no explosion protection)
- Plug-in electronics
- Redundant sensing with two terminal boxes

#### Technical data - mechanical design

Size (flange)	$\varnothing 287$ mm
Shaft type	$\varnothing 120$ ... $150$ mm (through hollow shaft)
Shaft loading	$\leq 250$ N axial $\leq 320$ N radial
Protection DIN EN 60529	IP 54
Operating speed	$\leq 3600$ rpm (mechanical)
Operating torque typ.	50 Ncm
Rotor moment of inertia	240 kgcm <sup>2</sup> ( $\varnothing 150$ )
Materials	Housing: aluminium alloy Shaft: stainless steel
Operating temperature	$-30$ ... $+85$ °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 200 g, 6 ms
Explosion protection	II 3 G Ex nA IIC T4 Gc (gas) II 3 D Ex tc IIIB T135°C Dc (dust)
Connection	Terminal box (2x with option M) Flange connector M23, 12-pin (2x with option M)
Weight approx.	20 kg ( $\varnothing 150$ )

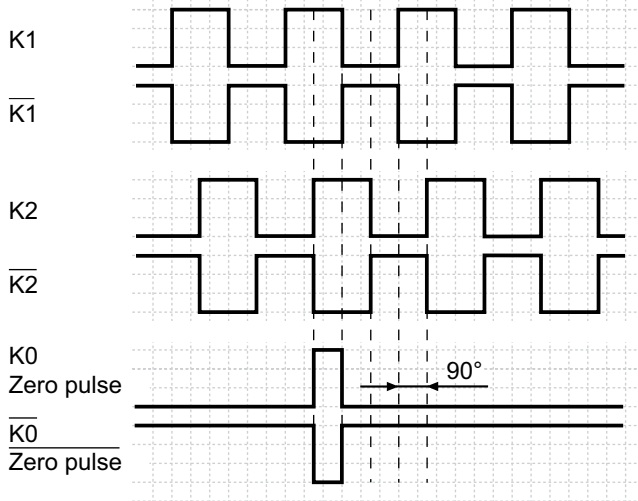


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### Output signals

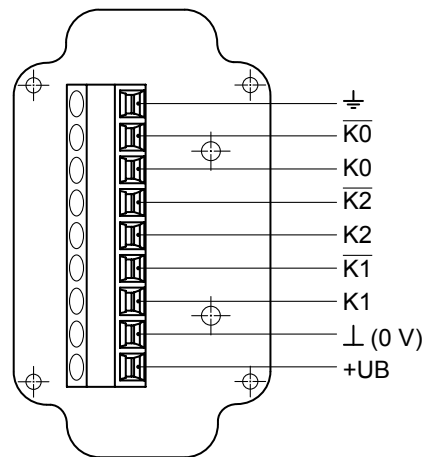
At positive rotating direction



### Terminal assignment

#### View A

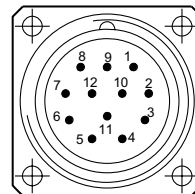
Connecting terminal in terminal box



#### View B

Flange connector, 12 pin, male contacts, CW

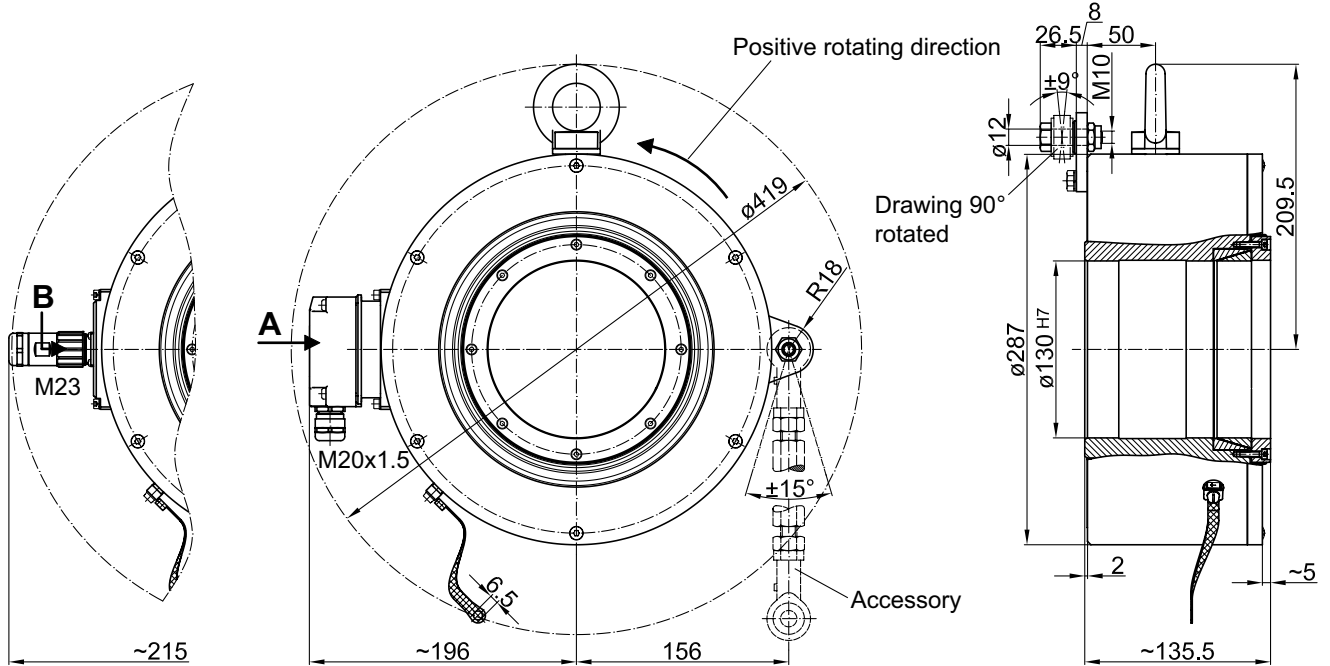
Pin	Assignment
1	$\overline{K2}$ (K2 inv. / B-)
2	Do not use
3	K0 (Zero pulse / R+)
4	$\overline{K0}$ (Zero pulse inv. / R-)
5	K1 (A+)
6	$\overline{K1}$ (K1 inv. / A-)
7	Do not use
8	K2 (B+)
9	Do not use
10	0 V
11	Do not use
12	+UB



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**Dimensions**

RCI 300 Version with clamping set



RCI 300 Version with clamping ring

