

Incremental encoders

Micro series - shaft max. $\varnothing 8$ mm

2...1024 pulses per revolution

BRIV 30R - EcoMag



BRIV 30R with shaft

Features

- Micro encoder with solid shaft max. $\varnothing 8$ mm
- Magnetic sensing method
- Max. 1024 pulses per revolution
- Housing $\varnothing 30$ mm
- Temperature range $-40...+85$ °C
- Robust steel flange

Technical data - electrical ratings

Voltage supply	5 VDC ± 10 % 20...28 VDC
Consumption typ.	25 mA (5 VDC, w/o load) 30 mA (24 VDC, w/o load)
Pulses per revolution	2...1024
Reference signal	Zero pulse, width 90°
Sensing method	Magnetic
Output frequency	≤ 320 kHz
Output signals	A 90° B, N + inverted
Output stages	Antivalent Push-pull short-circuit proof
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3
Approval	UL approval / E217823

Technical data - mechanical design

Size (flange)	$\varnothing 30$ mm
Shaft type	$\varnothing 6$ mm solid shaft $\varnothing 8$ mm solid shaft
Admitted shaft load	≤ 30 N axial ≤ 50 N radial
Flange	Synchro flange
Protection DIN EN 60529	IP 67
Operating speed	≤ 6000 rpm
Starting torque	≤ 1.3 Ncm
Materials	Housing: steel zinc-coated Flange: stainless steel 1.4305
Operating temperature	$-40...+85$ °C (only 5 VDC) $-40...+65$ °C
Relative humidity	95 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 30 g, 10-2000 Hz DIN EN 60068-2-27 Shock 500 g, 6 ms
Connection	Connector M9, 5-pin Connector M9, 8-pin Cable 2 m
Weight approx.	100 g

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Terminal assignment

Cable

for connection reference **-4** and **-5**

05A

Core colour	Signals	Core colour	Signals
brown	+Vs	brown	+Vs
green	CHA	green	CHA
red	CHA compl.	–	–
yellow	CHB	yellow	CHB
blue	CHB compl.	–	–
pink	CHN	pink	CHN
grey	CHN compl.	–	–
white	0 V	white	0 V

Cable data 8 x 0.14 mm²

Screen: connected to flange

Connector M9 male

for connection reference **-6** and **-9**

05A

Connector	Core colour*	Signals
Pin 1	white	0 V
Pin 2	brown	+Vs
Pin 3	green	CHA
Pin 4	yellow	CHB
Pin 5	grey	CHN compl.
Pin 6	pink	CHN
Pin 7	blue	CHB compl.
Pin 8	red	CHA compl.

17K

Connector	Core colour*	Signals
Pin 1	white	0 V
Pin 2	brown	+Vs
Pin 3	black	CHA
Pin 4	blue	CHB
Pin 5	grey	CHN

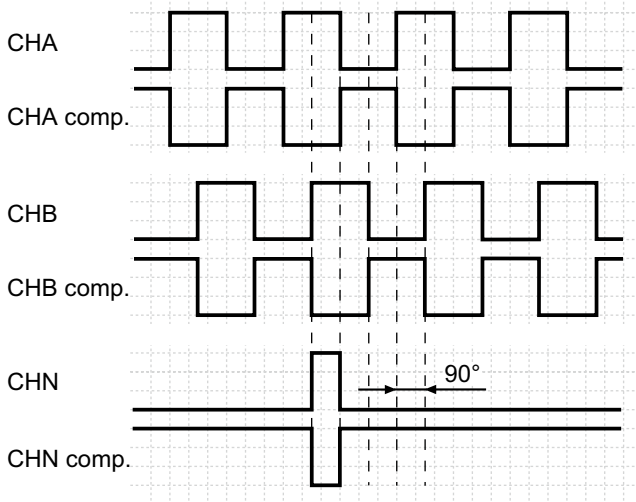
*these core colours are valid for the assembled mating connectors (see accessories)



Output signals

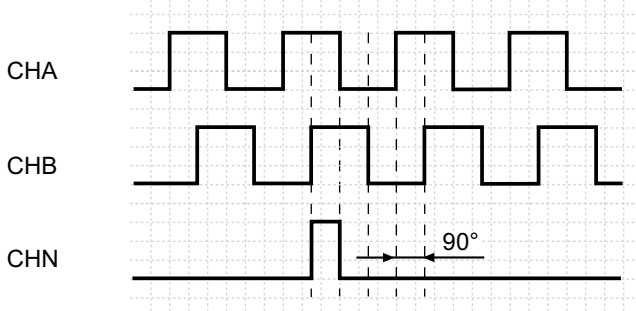
Counter clockwise rotating direction when looking at the flange.

05A



Counter clockwise rotating direction when looking at the flange.

17K



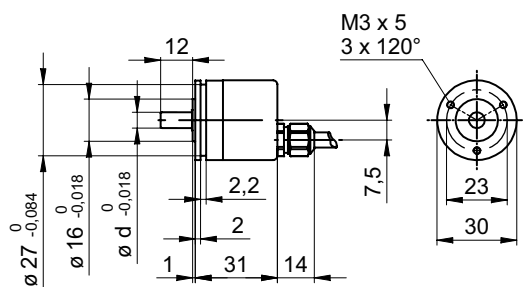
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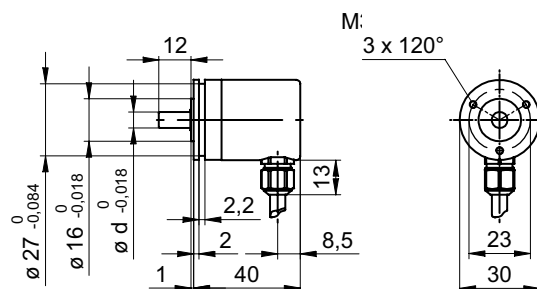
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Dimensions

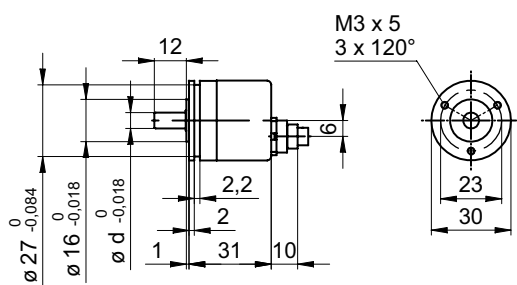
BRIV 30R, cable axial



BRIV 30R, cable radial



BRIV 30R, connector output axial



BRIV 30R, connector output radial

