

Incremental encoders

Mini series - blind hollow shaft max. \varnothing 12 mm

2...1024 pulses per revolution



RAD ELECTRIC Int.
www.radelectric.co

BRIH 40 - EcoMag



BRIH 40 with blind hollow shaft

Features

- Mini encoder with blind hollow shaft max. \varnothing 12 mm
- Magnetic sensing method
- Max. 1024 pulses per revolution
- Housing \varnothing 40 mm
- High resistance to shock and vibrations
- Wide pulse number range

Technical data - electrical ratings

Voltage supply	5 VDC \pm 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	\leq 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 40 mm
Shaft type	\varnothing 6 mm (blind hollow shaft) \varnothing 12 mm (blind hollow shaft)
Protection DIN EN 60529	IP 64
Operating speed	\leq 6000 rpm
Operating torque typ.	0.0075 Nm
Materials	Housing: polyamide black Flange: aluminium
Operating temperature	-20...+85 °C (only 5 VDC) -20...+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 100 g, 6 ms
Connection	Connector M9, 5-pin Connector M9, 8-pin Cable 1 m
Weight approx.	120 g

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Terminal assignment

Cable

for connection reference -5

05A		17K	
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 mm ²	5 x 0.14 mm ²	
Screen	connected to flange		

Connector M9 male

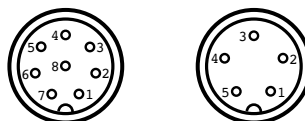
for connection reference -9

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

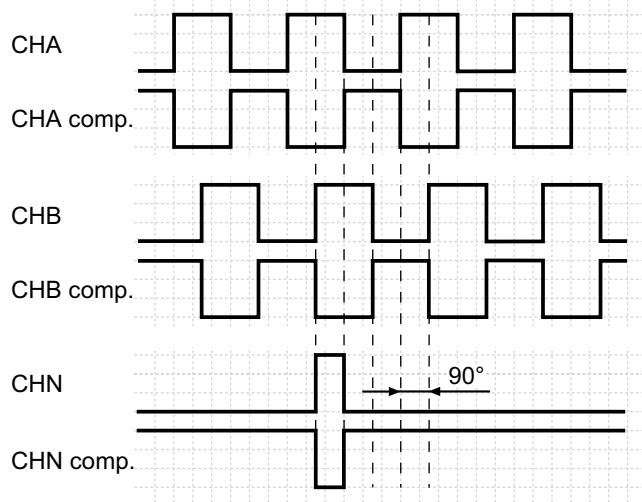
*these core colours are valid for the assembled mating connectors (see accessories)



Output signals

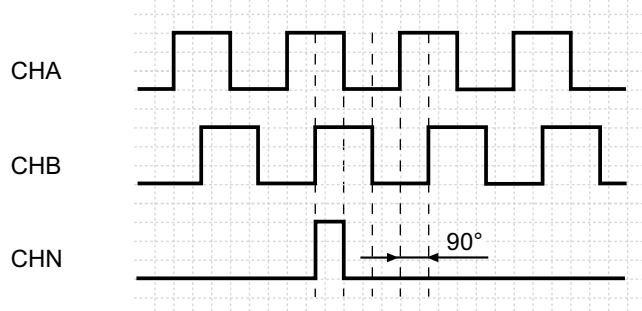
Counter clockwise rotating direction when looking at the flange.

05A



Counter clockwise rotating direction when looking at the flange.

17K





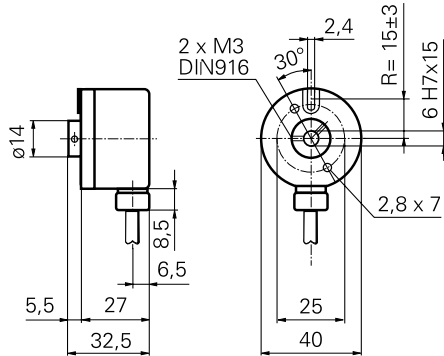
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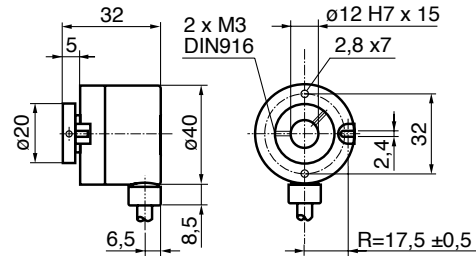
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Dimensions

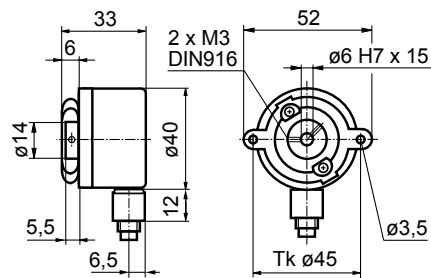
BRIH 40 blind hollow shaft $\varnothing 6$ mm, cable radial



BRIH 40 blind hollow shaft $\varnothing 12$ mm, cable radial



BRIH 40 blind hollow shaft $\varnothing 6$ mm, connector



BRIH 40 blind hollow shaft $\varnothing 12$ mm, connector

