

# QR series



QR40-090HB-VK

## Absolute rotary encoder (contactless)

Output  
0 - 5 V

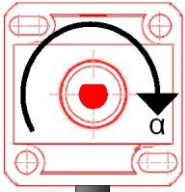
Supply voltage  
10 - 30V dc

Measuring range  
90° (out of 360°)



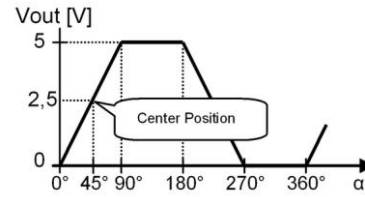
General specifications 10754, v20130826	
Housing	Quadro40: PBT black
Dimensions	40x40x22 mm
Mounting	2x stainless M4x25 mm screws
Ingress Protection (IEC 60529)	IP66
Weight	approx 75 gr (excl. cable)
Shaft	Stainless steel Ø 6 mm
Shaft type	D-form
Shaft bearing	Polyamide (glass-filled), Radial force < 1Nm, Axial force < 8N (push & pull)
Shaft length	8 mm
Supply voltage	10 - 30V dc
Polarity protection	Yes
Current consumption	≤ 50 mA
Operating temperature	-25 to 85°C
Storage temperature	-25 to 85°C
Measuring range	90° (out of 360°)
Programmable center position	Yes (2,5 V / 45°)
Accuracy	
Resolution	12 bit f.s. (min step 0,088°)
Max offset error	± 0,3° (after centering)
Non linearity	< ± 1,4°
Repeatability	0,12°
Response time	< 10 ms
Max speed	15 rpm
Output signal	0 - 5 V
Short circuit protection	Yes (max 10 s)
Output load resistor	≥ 20 kΩ
Connection	Cable 2 m PVC/PVC Liyy, black Ø 4,6 mm, wires: 4x0,25 mm <sup>2</sup> Sensor colors (static usage)
Wire coding	Brown + Supply voltage Black Output Blue Gnd White Center input

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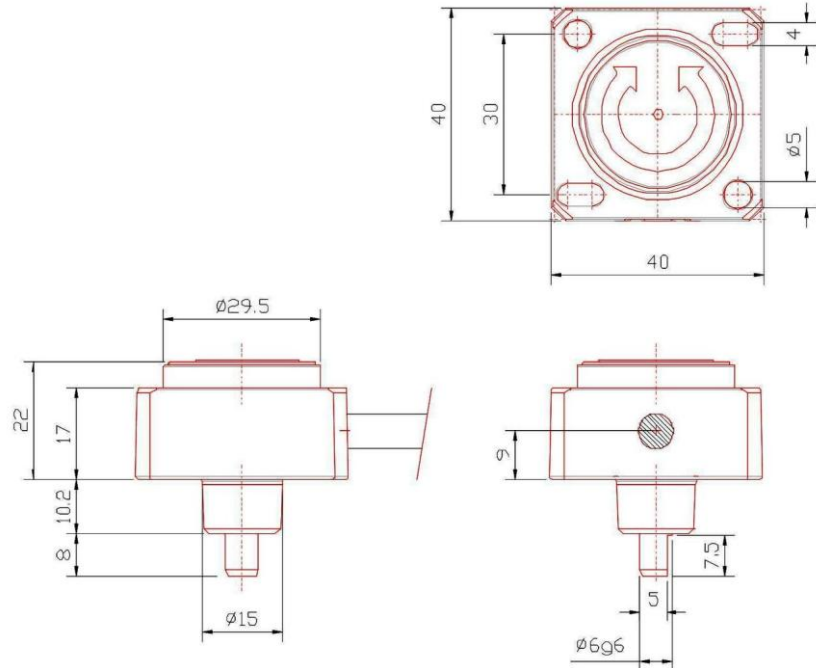
Rotation axis: CW

## Transfer characteristic



## QR40-090HB-VK

## Dimensions



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## Centering

When the center input is connected to Gnd for more than 0,5s, the current angle position will be stored internally as new Center position.  
Centering can be done repeatedly.  
Centering is used to correct mechanical offsets.  
Normally the Center input should be left unconnected.

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