

# QR series



QR40-360HB-VK-5V

## Absolute rotary encoder (contactless)

Output  
0 - 5 V (ratiometric to 5 V supply voltage)

Supply voltage  
5V dc

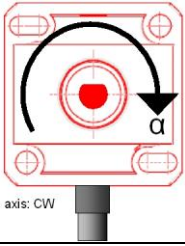
Measuring range  
360°



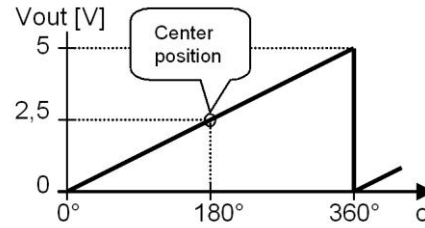
### General specifications v20121009

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	5V dc								
Polarity protection	No								
Current consumption	≤ 50 mA								
Operating temperature	-25 to 85°C								
Storage temperature	-25 to 85°C								
Measuring range	360°								
Programmable center position	Yes (2,5 V / 180°)								
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 (ratiometric to 5 V supply voltage)								
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	<table border="0"> <tr> <td>Brown</td> <td>+ Supply voltage</td> </tr> <tr> <td>Black</td> <td>Output</td> </tr> <tr> <td>Blue</td> <td>Gnd</td> </tr> <tr> <td>White</td> <td>Center input</td> </tr> </table>	Brown	+ Supply voltage	Black	Output	Blue	Gnd	White	Center input
Brown	+ Supply voltage								
Black	Output								
Blue	Gnd								
White	Center input								

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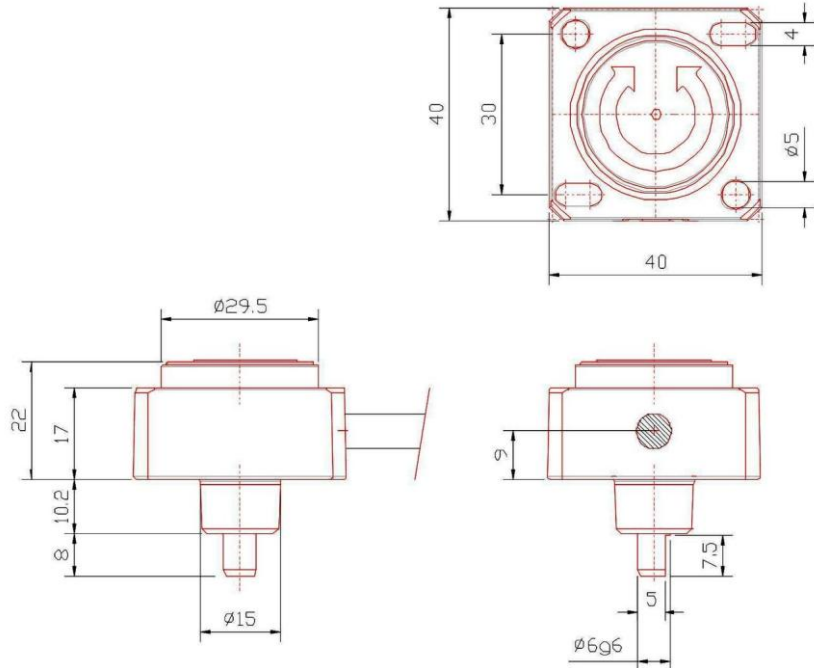


## Transfer characteristic



## QR40-360HB-VK-5V

## Dimensions



## QR40-360HB-VK-5V

## 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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