

# QR series



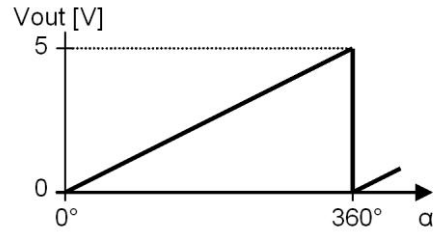
QR30-360HB-VK-5V
<b>Absolute rotary encoder (contactless)</b>
Output 0 - 5 V (ratiometric to 5 V supply voltage)
Supply voltage 5 Vdc ( $\pm 2\%$ )
Measuring range 360°



General specifications v20150302	
Housing	Quadro30: PBT black
Dimensions	30x30x15 mm
Mounting	2x steel zinc plated M3x16 mm screws
Ingress Protection (IEC 60529)	IP67
Weight	approx 15 gr (excl. cable)
Magnet type	11,2 x 5,5 x 8 mm Neodymium/N35/nickel coated/remanention 1,2 T
Magnet distance to sensor	0,5 to 3 mm
Max magnet misalignment	$\pm 0,25$ mm off axis
Direction of magnetization	Axial in 8 mm (N marked with red dot)
Supply voltage	5 Vdc ( $\pm 2\%$ )
Polarity protection	No
Current consumption	$\leq 25$ mA
Operating temperature	-25 to 85°C
Storage temperature	-25 to 85°C
Measuring range	360°
Programmable center position	No
Accuracy	
Resolution	12 bit f.s. (min step 0,088°)
Max offset error	Not applicable
Non linearity	$< \pm 1,4^\circ$ (in magnet alignment range)
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	$\geq 20$ k $\Omega$
Connection	Cable 2 m PVC/PVC Liyy, black $\varnothing$ 4,6 mm, wires: 3x0,34 mm <sup>2</sup> Sensor colors (static usage)
Wire coding	Brown + Supply voltage Black Output Blue Gnd

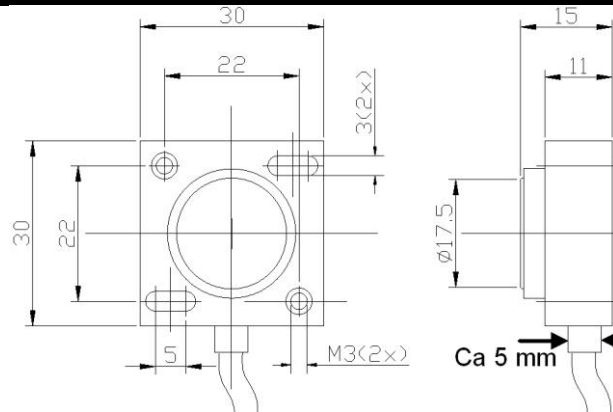
## QR30-360HB-VK-5V

### Transfer characteristic



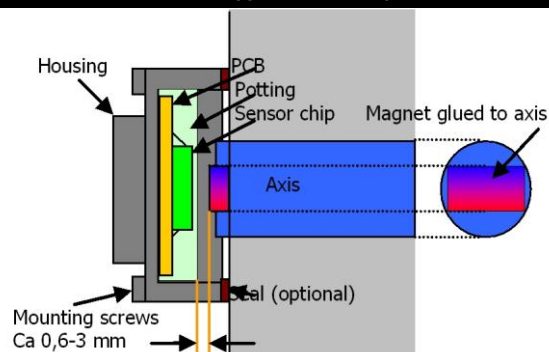
## QR30-360HB-VK-5V

### Dimensions



## QR30-360HB-VK-5V

### Application example



## QR30-360HB-VK-5V

The magnet is drawn in the  $0^\circ$  position.  
 $90^\circ$  position: N pole towards cable.  
 The north pole is indicated with a red dot.

### Magnet position

