

QR series



QR30-180B-VK-5V

Absolute rotary encoder (contactless)

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

Supply voltage
5V dc

Measuring range
180° (out of 360°)

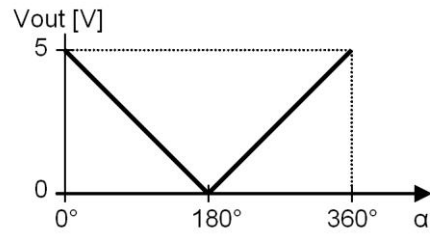


General specifications v20121009

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	8x5,5x11,2 mm Neodymium/N35/nickel coated/remanention 1,2 T
Magnet distance to sensor	0,5 to 3 mm
Max magnet misalignment	± 0,25 mm off axis
Direction of magnetization	Axial in 8 mm (N marked with red dot)
Supply voltage	5V dc
Polarity protection	No
Current consumption	≤ 25 mA
Operating temperature	-25 to 85°C
Storage temperature	-25 to 85°C
Measuring range	180° (out of 360°)
Programmable center position	No
Accuracy	
Resolution	10 bit f.s. (min step 0,35°)
Max offset error	Not applicable
Non linearity	< ± 1,4° (in magnet alignment range)
Repeatability	0,47°
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: 3x0,34 mm² Sensor colors (static usage)
Wire coding	Brown + Supply voltage Black Output Blue Gnd

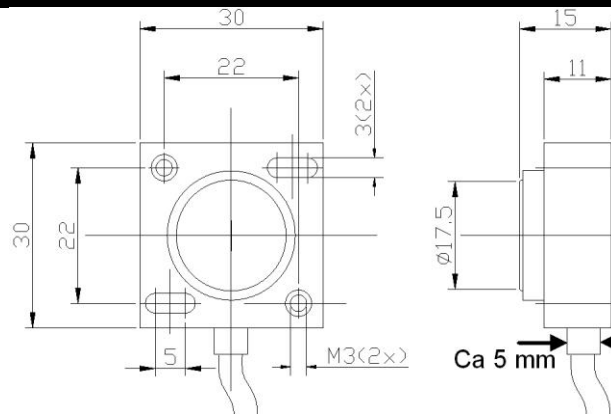
QR30-180B-VK-5V

Transfer characteristic



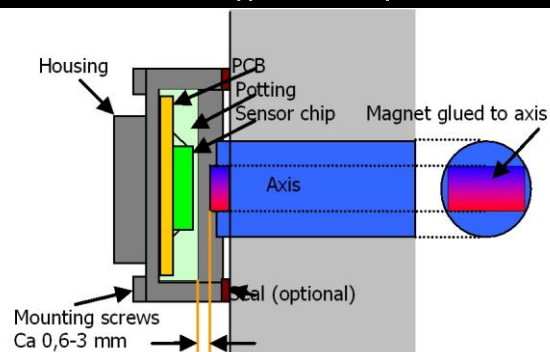
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Dimensions



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Application example



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

Magnet position

