

QR series



QR30N-360HB-VK
Absolute rotary encoder (contactless)
Output 0 - 5 V
Supply voltage 10 - 32V dc
Measuring range 360°

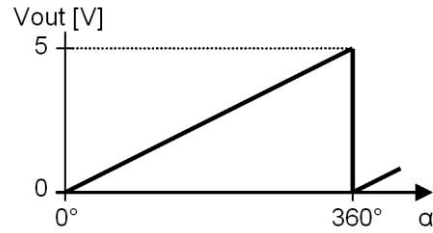


General specifications 11400, v20160210	
Housing	Quadro30: PBT black
Dimensions (indicative)	30x30x15 mm
Mounting	2x steel zinc plated M3x16 mm screws
Ingress Protection (IEC 60529)	IP67
Weight	approx 15 gr (excl. cable)
Magnet type	11,2 x 5,5 x 8 mm Neodymium/N35/nickel coated/remanention 1,2 T
Magnet distance to sensor	d = 0,1 to 5 mm
Max. radial magnet misalignment	1 mm Radial Off Axis (< 0,3 mm for minimum non-linearity)
Direction of magnetization	Axial in 8 mm (N marked with red dot)
Supply voltage	10 - 32V dc
Polarity protection	Yes
Current consumption	≤ 25 mA
Operating temperature & humidity	-25 to 85°C, 0 to 100% RH
Storage temperature	-25 to 85°C
Measuring range	360°
Programmable center position	No
Accuracy (2σ)	
Resolution	12 bit over 360° (min. step 0,09°)
Max offset error	Not applicable
Non linearity	< ± 1° (in magnet alignment range)
Repeatability	0,12°
Response time	< 4 ms
Max speed	30 rpm
Output signal	0 - 5 V
Short circuit protection	Yes (max 10 s)
Output load resistor	≥ 20 kΩ
Connection (length ±10%)	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

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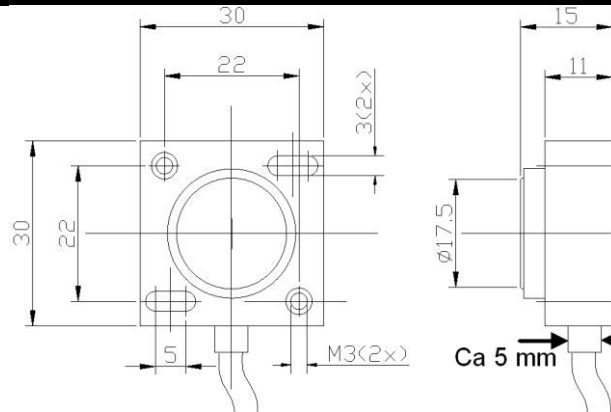
Output approx. 0V when magnetic field outside specifications

Transfer characteristic



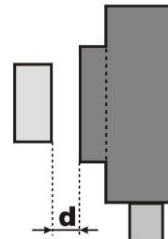
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Dimensions (indicative only)



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Magnet distance to sensor



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Magnet drawn in $\alpha=0^\circ$ position. While rotating the magnet clockwise α increases. The magnet's north pole (N) is indicated with a red dot on the magnet.

Magnet position

