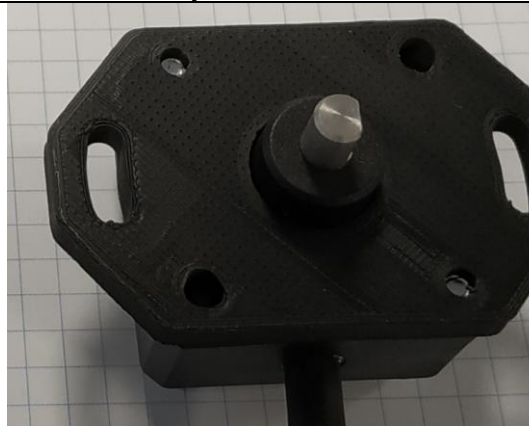


# QR series



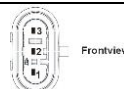
Preliminary

|  |
|--|
| QR46-120HB-V2-P0.1CS3p                           |
| <b>Absolute rotary encoder<br/>(contactless)</b> |
| Output<br>0,5 - 4,5 V                            |
| Supply voltage<br>10 - 32 Vdc                    |
| Measuring range<br>120° (±60°)                   |



| General specifications v20211202 |  |
|----------------------------------|--|
| Housing                          | Q46: PBT black with metal plate  |
| Dimensions (indicative)          | 40.5x63x28 mm, shaft excluded.   |
| Mounting                         | Not included: Mounting holes in bracket for 2x M4  |
| Ingress Protection (IEC 60529)   | IP66   |
| Relative Humidity                | 0 - 95% (non condensing, fully potted)   |
| Weight                           | approx 70 gr (cable excluded)  |
| Shaft                            | Stainless steel Ø 6 mm   |
| Shaft type                       | D-type 4,6mm with Ø2mm hole (compatible with Elobau lever 350210)  |
| Shaft bearing                    | Polyamide (glass-filled), Radial force < 1Nm, Axial force < 8N (push & pull)   |
| Shaft length                     | t.b.d.   |
| Supply voltage                   | 10 - 32 Vdc  |
| Polarity protection              | Yes  |
| Current consumption              | ≤ 25 mA  |
| Operating temperature            | -25 to 80°C  |
| Storage temperature              | -25 to 85°C  |
| Measuring range                  | 120° (±60°)  |
| Programmable center position     | No, use slot holes to adjust 0° point during mounting  |
| Accuracy                         |  |
| Resolution                       | 12 bit over 360° (min. step 0,09°)   |
| Sensitivity error                | ±0.5% typ. (@20°C), ±1% typ. (full Temp. range)  |
| Offset error                     | ± 7°   |
| Non linearity                    | < ± 1°   |
| Repeatability                    | 0,13°  |
| Response time                    | < 4 ms   |
| Max speed                        | 15 rpm   |
| Output signal                    | 0,5 - 4,5 V  |
| Short circuit protection         | Yes (T<55°C), Max 10 s (T>55°C)  |
| Output load resistor             | ≥ 20 kΩ  |
| Connection (length ±10%)         | Pigtail cable: 0,1 m TPE/PP Li9y12y, black ø5,2 mm, wires: 3x0,5 mm², connector AMP superseal 1.5 series 3-pole Cap housing (=male) (p/n 282105-1) Tab contacts (p/n 183036-1) with wire seals (p/n 281934-4) and rubber boot (p/n 880811-2) |
| Wire coding                      | Pin 1: (Black1) Gnd<br>Pin 2: (Black2) Supply Voltage<br>Pin 3: (Black3) Output  |

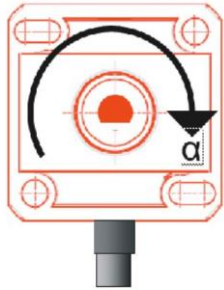
| General specifications v20211202 |  |
|----------------------------------|--|
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| Dimensions (indicative)          | 40.5x63x28 mm, shaft excluded.   |
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| Output signal                    | 0,5 - 4,5 V  |
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| Connection (length ±10%)         | Pigtail cable: 0,1 m TPE/PP Li9y12y, black ø5,2 mm, wires: 3x0,5 mm², connector AMP superseal 1.5 series 3-pole Cap housing (=male) (p/n 282105-1) Tab contacts (p/n 183036-1) with wire seals (p/n 281934-4) and rubber boot (p/n 880811-2) |
| Wire coding                      | Pin 1: (Black1) Gnd<br>Pin 2: (Black2) Supply Voltage<br>Pin 3: (Black3) Output  |



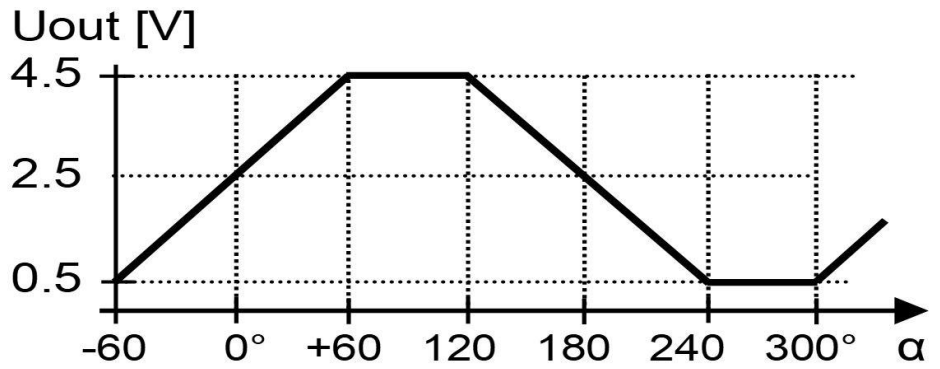
# QR series

QR46-120HB-V2-P0.1CS3p

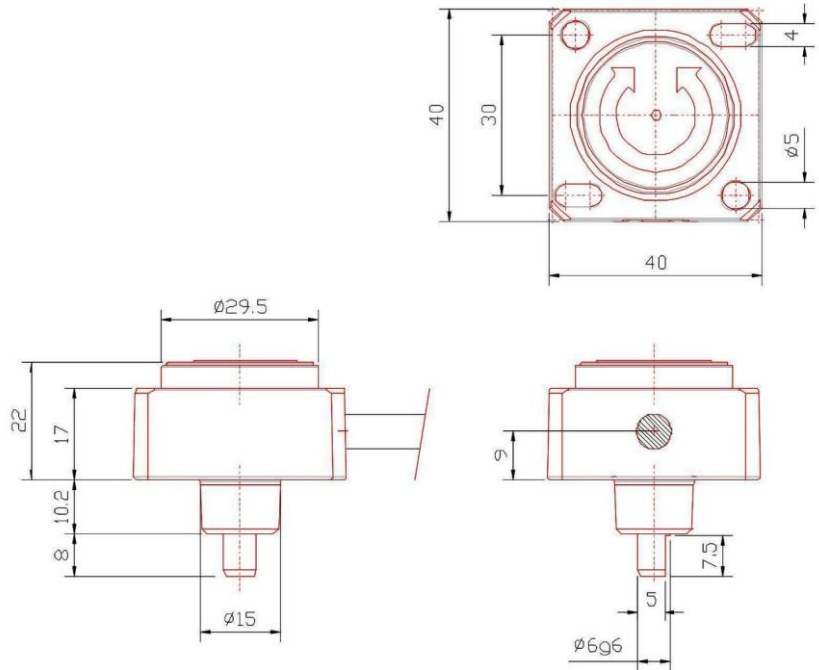
## Transfer characteristic



Shaft-view  
 D-shaft must cable drawn in 0° (2.5V) position  
 CW rotation from 0° to 60° increases output from 2.5V to 4.5V  
 CCW rotation from 0° to -60° decreases output from 2.5V to 0.5V



## Dimensions (indicative only)



## Options