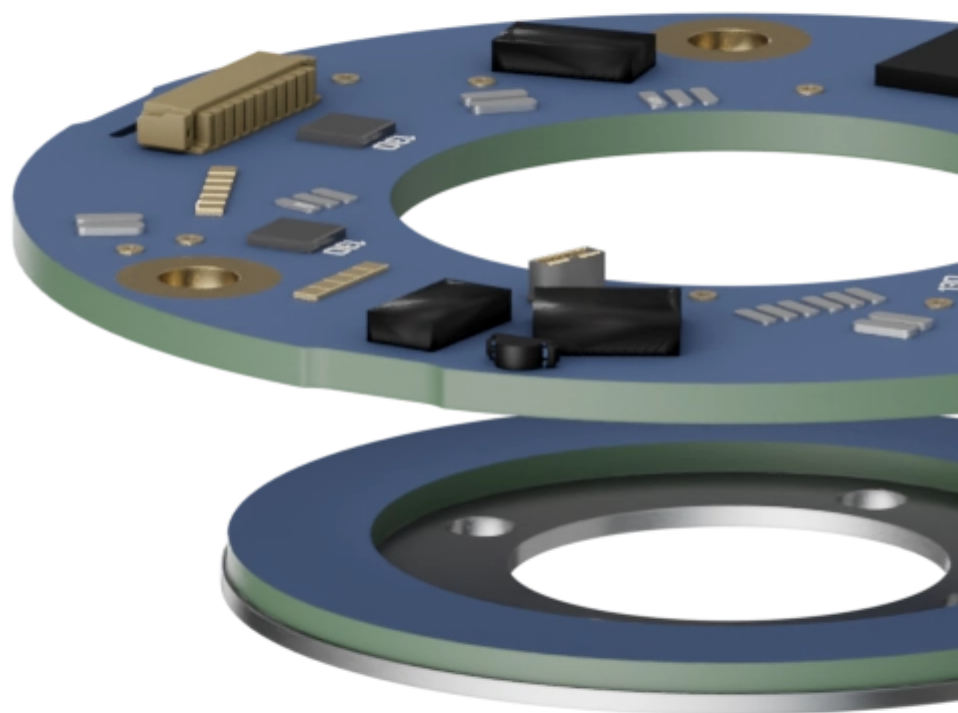


variables/V-color

## **Encoder | INDUCTIVE Rotary | IND-ROT-055-A21-WB**







## System Data

### IND-ROT-055-A21-WB

|                                                |                                                                                              |
|------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Type</b>                                    | Axial, frameless, true absolute INDUCTIVE encoder INDUCTIVE-ROTARY-FLUX GmbH (patentpending) |
| <b>Standard Resolution</b>                     | 21 bits, 524'288 2'097'152 ppr(beforex4)<br>cpr(afterx4)                                     |
| <b>ENOB in entire mounting tolerance range</b> | 19 bits                                                                                      |
| <b>High Accuracy</b>                           | Enhanced accuracy can be achieved depending on the mounting setup                            |
| <b>Standard Accuracy</b>                       | $\pm 90''$ , $\pm 0.025^\circ$ , $\pm 450\mu\text{rad}$                                      |
| <b>Thickness</b>                               | 5.80                                                                                         |
| <b>Hysteresis</b>                              | none                                                                                         |
| <b>Repeatability</b>                           | 1 resolution count                                                                           |
| <b>Position update rate and signal latency</b> | Real-time                                                                                    |
| <b>Power-up Time</b>                           | max. 0.8 sec                                                                                 |



## Electrical Data

**Supply voltage** Option5V:min.4.35Vdc.max.6Vdc

|                                    |                                     |
|------------------------------------|-------------------------------------|
| <b>Reverse polarity protection</b> | yes                                 |
| <b>Current Consumption</b>         | max.100mA@ 5Vdc, max.<br>30mA@24Vdc |



### Mechanical Data

|                             |                                   |
|-----------------------------|-----------------------------------|
| <b>Stator Base Material</b> | FR4 (CTE~18ppm/°C)                |
| <b>Stator Weight</b>        | 7.00 g                            |
| <b>Rotor Base Material</b>  | Stainless steel (CTE~10ppm/°C)    |
| <b>Rotor Weight</b>         | 7.00 g                            |
| <b>Vibration</b>            | EN 60068-2-6, 20 g, 55 .. 2000 Hz |
| <b>Shock</b>                | EN 60068-2-27, 200 g, 6 ms        |



### Mounting Tolerances

|                                |                              |
|--------------------------------|------------------------------|
| <b>Nominal Axial (air-gap)</b> | 0.50 mm                      |
| <b>Axial Tolerance</b>         | 0.30 mm (0.20 mm to 0.80 mm) |
| <b>Radial Tolerances</b>       | 0.20 mm                      |



### Environmental Data

|                                               |                |
|-----------------------------------------------|----------------|
| <b>Temperature Range - Standard Operating</b> | -20°C .. +85°C |
|-----------------------------------------------|----------------|

**Temperature Range - Standard Storage**

-20°C .. +85°C

**Temperature Range - Extended Operating**

-40°C .. +105°C

**Temperature Range - Extended Storage**

-55°C .. +125°C

**Ingress Protection**

IP00

**EMC Immunity**

complies with EN IEC 61000-6-2

**EMC Emission**

complies with EN IEC 61000-6-4



**Advantages**



**Benefits**

- Plug-n-play
- No field calibration required
- Wide mounting tolerances
- High accuracy
- Low installation cost
- Low integration effort
- Easy installation



**pes**

product  
engineering  
services

**expertise in connectivity**