## Incremental encoder with solid shaft

RV-1000-I24/L6


C $\in$ ive

| Product characteristics |  |
| :---: | :---: |
| Resolution | 1000 resolution |
| Shaft design | solid shaft |
| Shaft diameter [mm] | 10 |
| Application |  |
| Function principle | incremental |
| Electrical data |  |
| Operating voltage [V] | 10... 30 DC |
| Current consumption [mA] | < 150 |
| Outputs |  |
| Electrical design | HTL |
| Max. current load per output [mA] | 50 |
| Switching frequency [kHz] | 300 |
| Type of short-circuit protection | $<60$ s |
| Phase difference A and B [ ${ }^{\circ}$ | 90 |
| Measuring/setting range |  |
| Resolution | 1000 resolution |
| Operating conditions |  |
| Ambient temperature [ $\left.{ }^{\circ} \mathrm{C}\right]$ | -40... 100 |
| Note on ambient temperature | for firmly laid cable: $-40^{\circ} \mathrm{C}$ |
| Max. relative air humidity [\%] | 98 |
| Protection | IP 64; (on the housing: IP 67; on the shaft: IP 64) |

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| Tests / approvals |  |
| :---: | :---: |
| Shock resistance | 200 g |
| Vibration resistance | 30 g |
| MTTF [years] | 190 |
| Mechanical data |  |
| Weight [g] | 729.4 |
| Dimensions [mm] | $\varnothing 58 / \mathrm{L}=46.7$ |
| Materials | aluminium |
| Max. revolution, mechanical [U/min] | 12000 |
| Max. starting torque [ Nm ] | 1 |
| $\begin{aligned} & \text { Reference temperature } \\ & \text { torque }\end{aligned} \quad\left[{ }^{\circ} \mathrm{C}\right]$ | 20 |
| Shaft design | solid shaft |
| Shaft diameter [mm] | 10 |
| Shaft material | steel (1.4104) |
| Max. shaft load axial (at the [ N ] shaft end) | 10 |
| Max. shaft load radial (at the [ N ] shaft end) | 20 |

Electrical connection
Cable: 6 m, PUR; Maximum cable length: 300 m; radial, can also be used axially

| brown | A |
| :--- | :--- |
| green | A inverted |
| grey | B |
| pink | B inverted |
| red | 0 index |
| black | 0 index inverted |
| blue | L+ sensor |
| white | OV sensor |
| brown/green | L+ (Up) |
| white/green | OV (Un) |
| lilac | failure inverted |
| screen | housing |

## Diagrams and graphs

## Pulse diagram


direction of rotation clockwise (looking at the shaft)

