

**MODEL:** RING56-101530A-TH | **DESCRIPTION:** HOLLOW SHAFT MECHANICAL ENCODER**FEATURES**

- low profile
- haptic detent feedback
- 30K rotational life cycles

**ELECTRICAL**

| parameter             | conditions/description                                                     | min | typ | max | units |
|-----------------------|----------------------------------------------------------------------------|-----|-----|-----|-------|
| power supply          |                                                                            |     | 5   |     | V     |
| current consumption   |                                                                            |     |     | 1   | mA    |
| output                | 2-bit quadrature, channel A leads channel B by 90° with clockwise rotation |     |     |     |       |
| output resolution     | 15 PPR                                                                     |     |     |     |       |
| insulation resistance | at 250 Vdc                                                                 | 100 |     |     | MΩ    |
| dielectric strength   | for 1 minute at sea level                                                  |     | 300 |     | Vac   |
| electrical travel     | continuous                                                                 |     |     |     |       |
| contact bounce        | at 15 RPM                                                                  |     |     | 2   | ms    |

**MECHANICAL**

| parameter         | conditions/description | min | typ    | max | units  |
|-------------------|------------------------|-----|--------|-----|--------|
| operating speed   |                        |     |        | 60  | RPM    |
| rotational angle  | continuous             |     | 360    |     | °      |
| detent step angle | 30 detents             |     | 12     |     | °      |
| rotational torque |                        | 100 |        | 400 | gf·cm  |
| rotational life   |                        |     | 30,000 |     | cycles |

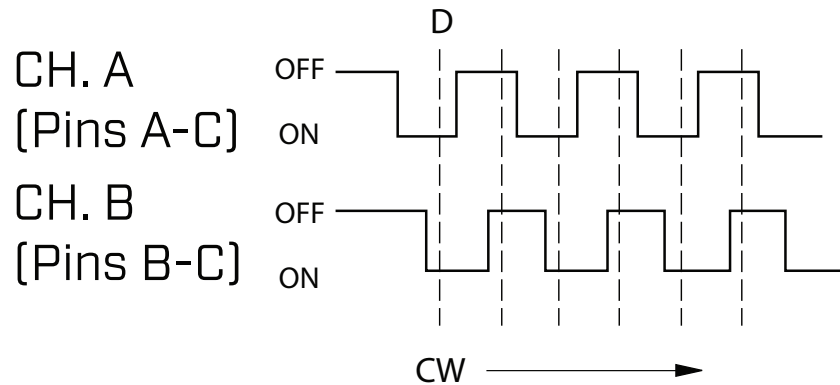
**ENVIRONMENTAL**

| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | -30 |     | 80  | °C    |
| storage temperature   |                        | -40 |     | 85  | °C    |
| RoHS                  | yes                    |     |     |     |       |
| IP level              | IP40                   |     |     |     |       |

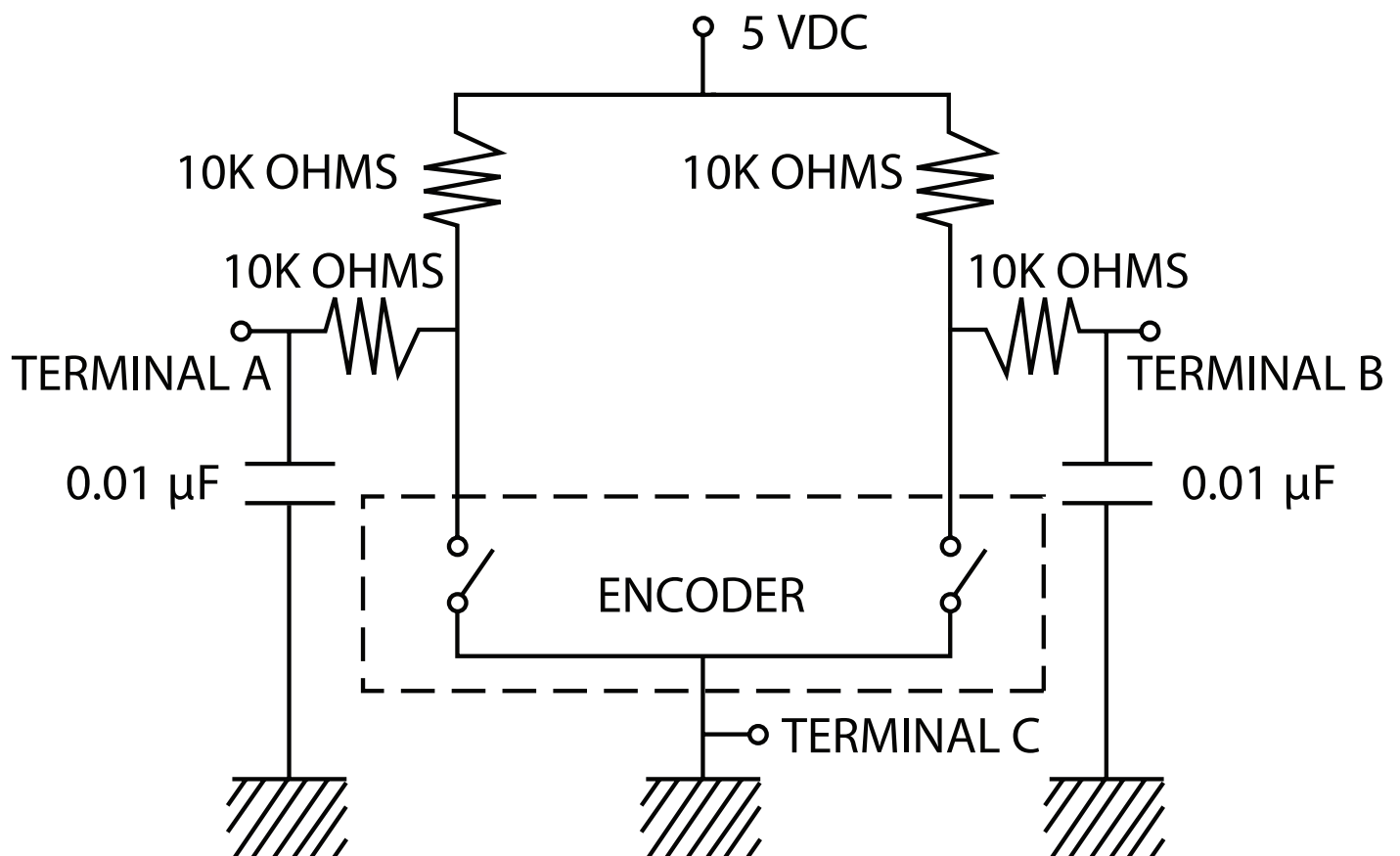
**SOLDERABILITY**

| parameter      | conditions/description | min | typ | max | units |
|----------------|------------------------|-----|-----|-----|-------|
| hand soldering | for maximum 3 seconds  |     | 300 |     | °C    |
| wave soldering | for maximum 3 seconds  |     | 260 |     | °C    |

## OUTPUT WAVEFORM



## RECOMMENDED FILTER





REVISION HISTORY

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 12/16/2024 |

The revision history provided is for informational purposes only and is believed to be accurate.



Same Sky offers a one (1) year limited warranty. Complete warranty information is listed on our website.

Same Sky reserves the right to make changes to the product at any time without notice. Information provided by Same Sky is believed to be accurate and reliable. However, no responsibility is assumed by Same Sky for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

**sameskydevices.com**