

**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 |

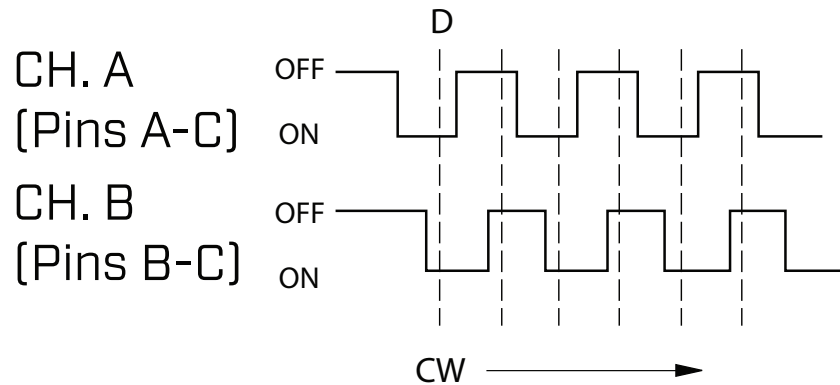
**ENVIRONMENTAL**

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

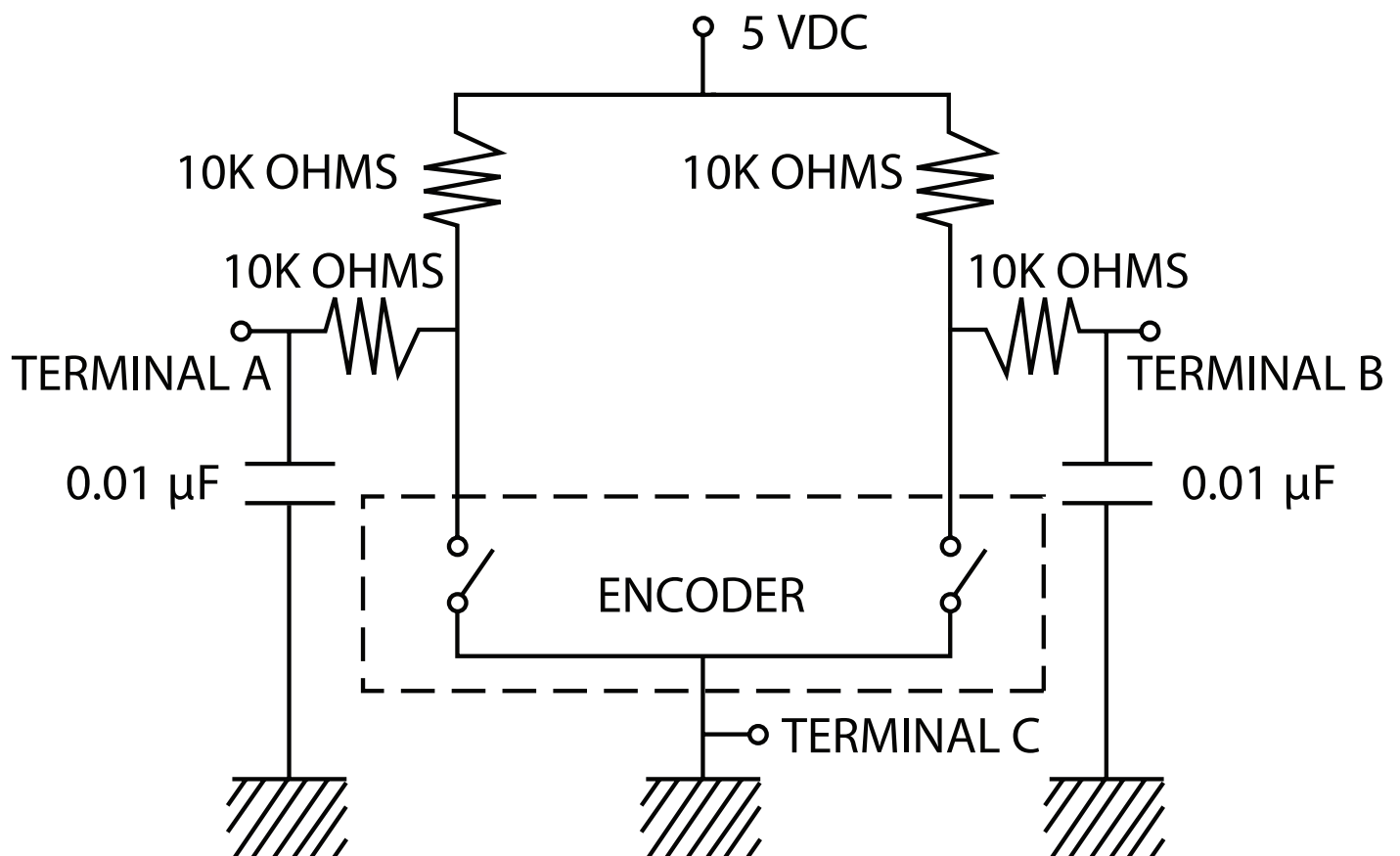
**SOLDERABILITY**

| 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



unless otherwise noted

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.

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