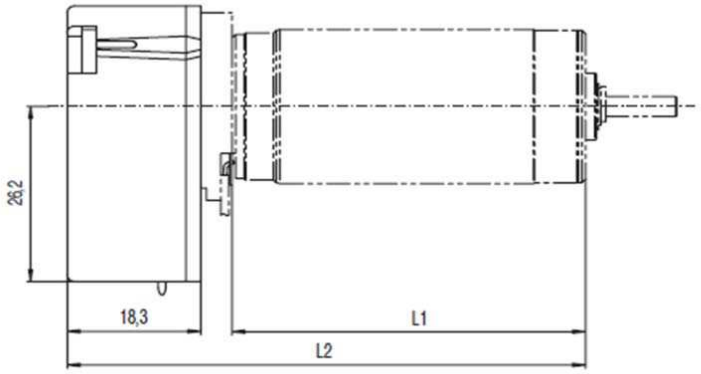
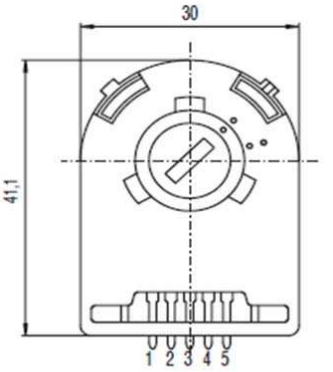



**Pin Function**

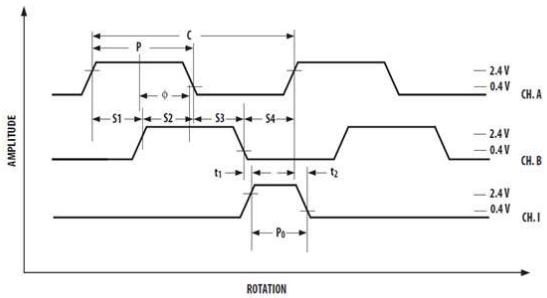
1. Mass
2. N.C
3. Channel A
4. Vcc
5. Channel B

| **Characteristics @ 22°C** | | | | |
|---|---|---|---|---|
| 1 Number of lines available | | 96 to 1024 | | LPR |
| 2 Supply voltage | | 5 ± 10% | | Volt |
| 3 Supply current | Typcial | 17 - 57 | | mA |
| 4 Output signal | | 2 channels, square wave in quadrature 3 Channels (with index) | | CMOS |
| 5 Electrical phase shift | | 90 ± 10 | | degree |
| 6 Maximum count frequency | | 100 | | kHz |
| 7 Operating Temperature Range: | | -40 (-40) to +100 (+212) | | °C (°F) |
| 8 Code wheel moment of inertia | | 0.6 X 10-7 | | $10^{-7}$ x $kgm^2$ |
| 9 Weight | | 19 (0.67) | | g (oz) |

| **Available on motor types** | **22N48** | **22N98** | **22V48** | **23GST** | **26N48** | **28LT12** | **28DT12** | **35NT** |
|---|---|---|---|---|---|---|---|---|
| L2-Length with motor - mm (in) | 54.9 (2.16) | 54.9 (2.16) | 57.2 (2.25) | 58.6 (2.31) | 63 (2.48) | 63.8 (2.51) | 85.2 (3.35) | 83.45 (3.29) |

*On request, encoder available on other motors. Encoder also available with line-driver.

Output Waveforms




**Phase (φ)**:This value is nominally 90°e for quadrature output.
**Index Pulse Width (PO)**: This value is nominally 90°e or 1/4 cycle.
**State Width (S)**:Each state is nominally 90°e
**Pulse Width (P)**:This value is nominally 180°e or 1/2 cycle.
**One Cycle (C)**:360 electrical degrees (°e), 1 bar and window pair
**Channel I rising time (t1):** The value is nominally 100 ns
**Channel I falling time (t2):**The value is nominally 150 ns