

CH25

Rotary Incremental Encoder

100 to 5000 Pulses Per Revolution

5...30 VDC • Push-Pull Driver

M12 Connector • IP67

In Stock for Quick Delivery



GENERAL

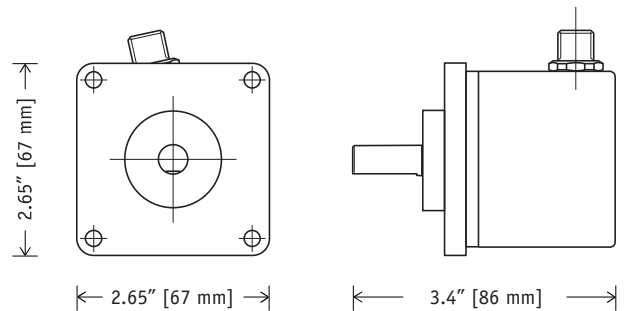
| | |
|-----------------------------------|--|
| Pulses Per Revolution Options | 100, 360, 500, 1024, 2048, 4096, 5000 |
| Output Driver | push-pull ($V_{out} = V_{in}$) |
| Input Voltage (V_{in}) | 5...30 VDC |
| Input Current | 70 mA max. |
| Load | 40 mA max. |
| Output Level (@ 20 mA load), High | $> V_{in} - 10\%$ |
| Output Level (@ 20 mA load), Low | < 2.5 VDC |
| Pulse Frequency | 200 kHz |
| Circuit Protection | inverse-polarity protection |
| Electrical Connection | M12 (8-pin) connector (mating plug not included) |

MECHANICAL

| | |
|--|---|
| Housing | aluminum, powder-coated |
| Flange | aluminum |
| Shaft | stainless steel |
| Shaft Loading, Radial | 49.5 lbs (220 N) max. |
| Shaft Loading, Axial | 27 lbs (120 N) max. |
| Starting Torque | approx. 1.4 oz-in. (1 N-cm) @ ambient temperature |
| Bearing Type | precision ball bearings |
| Bearing Life @ 100% of full rated load | 10^9 shaft revolutions |
| Bearing Life @ 40% of full rated load | 10^{10} shaft revolutions |
| Bearing Life @ 20% of full rated load | 10^{11} shaft revolutions |
| Maximum Operating Speed | 8000 RPM |
| Weight (approx) | 10.5 oz (300g) |

ENVIRONMENTAL

| | |
|-----------------------|------------------------------|
| Enclosure Design | IP67 |
| Shaft Seals | IP65 |
| Operating Temperature | -4° to 176°F (-20° to 80°C) |
| Storage Temperature | -22° to 176°F (-30° to 80°C) |



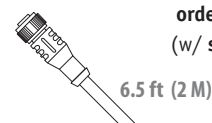
Introducing Celesco's CH25 Incremental Encoder. This encoder comes with a 2.5-inch square flange, 3/8-inch shaft and a push-pull output driver. The CH25 also accepts a wide input voltage from 5 to 30 VDC and is available in resolutions from 100 to 5000 pulses per revolution.

This encoder is perfect for many applications including electric motors, packaging machines, conveyor systems and elevators.

ORDERING INFORMATION

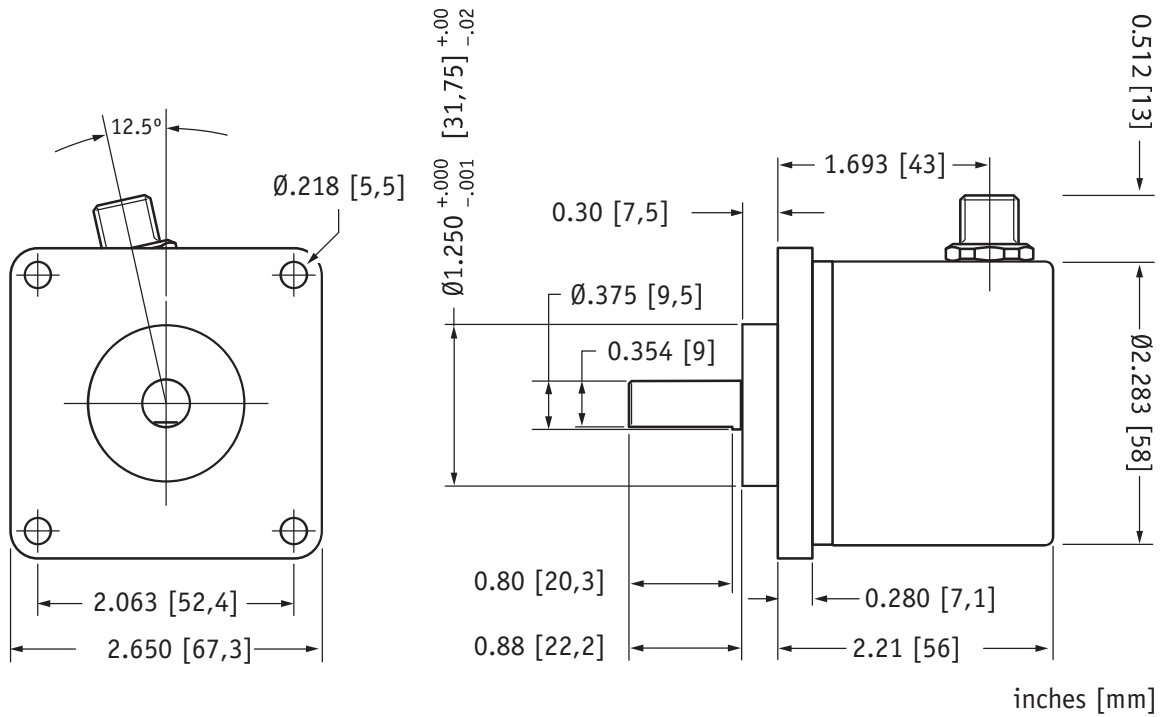
| Order Number | Pulses Per Turn |
|--------------|-----------------|
| CH25-100 | 100 |
| CH25-360 | 360 |
| CH25-500 | 500 |
| CH25-1024 | 1024 |
| CH25-2048 | 2048 |
| CH25-4096 | 4096 |
| CH25-5000 | 5000 |

Shielded Cord-Set

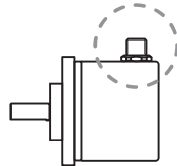
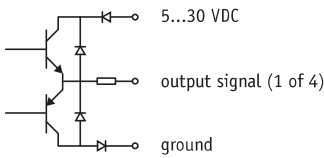


order #: 9036810-0050
(w/ straight cable socket)

Outline Drawing:



Output Driver:

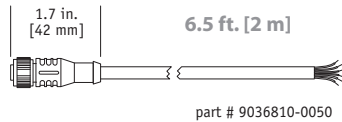
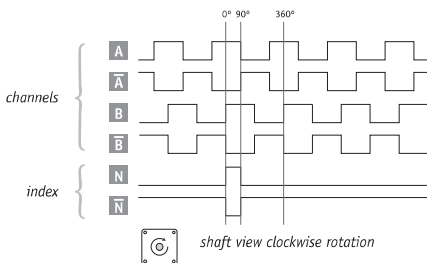


Output Signal Connections:

Encoder Pin Connections

| pin | signal | pin | signal |
|-----|------------|-----|------------|
| 1 | ground | 5 | N |
| 2 | 5...30 VDC | 6 | channel A' |
| 3 | channel A | 7 | channel B' |
| 4 | channel B | 8 | N' |

Output Waveforms



Cord Set Connections

| pin | conductor | signal | pin | conductor | signal |
|-----|-----------|------------|-----|-----------|------------|
| (1) | white | ground | (5) | gray | N |
| (2) | brown | 5...30 VDC | (6) | pink | channel A' |
| (3) | green | channel A | (7) | blue | channel B' |
| (4) | yellow | channel B | (8) | red | N' |

cable specifications

| | |
|-----------------|------------------------------|
| length: | 6.5 ft. (2m) |
| wire size: | 24 AWG (.25mm ²) |
| shield: | yes |
| cable material: | PVC |
| cable color: | gray |

version: 5.0 last updated: December 7, 2012