

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
<b>CH25-100</b>	100
<b>CH25-360</b>	360
<b>CH25-500</b>	500
<b>CH25-1024</b>	1024
<b>CH25-2048</b>	2048
<b>CH25-4096</b>	4096
<b>CH25-5000</b>	5000

### Shielded Cord-Set



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

6.5 ft (2M)

## 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

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

### Mechanical

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

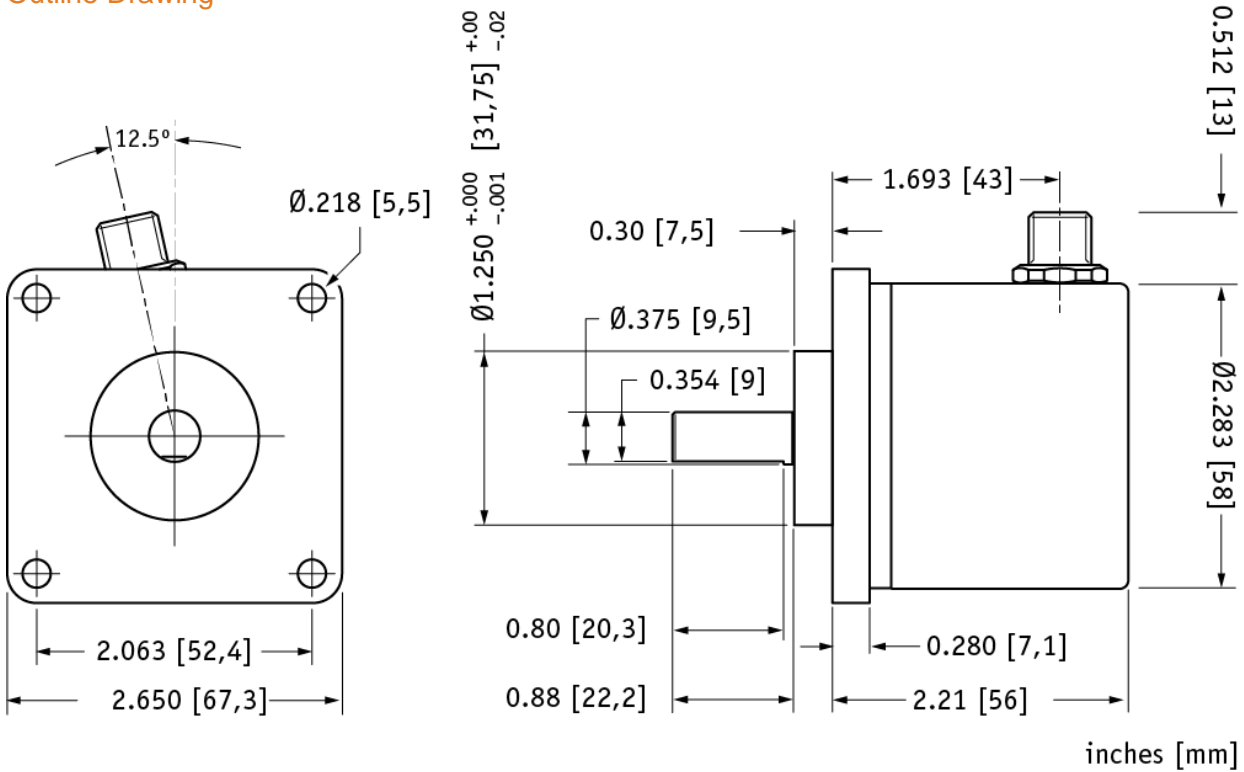
### Environmental

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

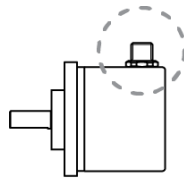
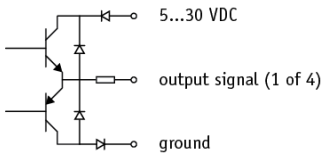
# CH25

Rotary Incremental Encoder

## Outline Drawing



## Output Driver



## Output Signal Connections

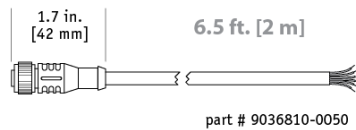
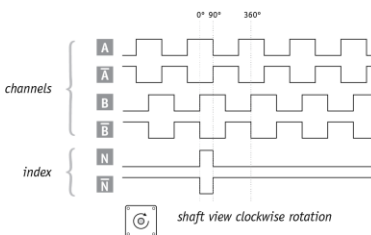


M12 Connector

### 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 <sup>2</sup> )
shield:	yes
cable material:	PVC
cable color:	gray

## CH25

### Rotary Incremental Encoder

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

中国大陆  
西安鑫源宇通电子科技有限公司  
陕西省西安市高新区锦业路70号航  
天恒星园区1号厂房一层南  
Tel: 400-780-9688  
[sales@senstechxyz.com](mailto:sales@senstechxyz.com)

中国香港  
深大实业有限公司  
香港新界沙田安平街6号新贸易  
中心B座13楼06室  
Tel: +86 17792099916  
[info@caltropinstruments.com](mailto:info@caltropinstruments.com)

新加坡  
深大实业有限公司  
香港新界沙田安平街6号新贸易  
中心B座13楼06室  
Tel: +86 17792099919  
[info@senstechxyz.com](mailto:info@senstechxyz.com)