

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



## **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 (Vin)
 5...30 VDC

 Input Current
 70 mA max.

 Load
 40 mA max.

 Output Level (@ 20 mA load),
 > V<sub>in</sub> – 10%

High

Output Level (@ 20 mA load), < 2.5 VDC

\_ow

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 temperatu

Bearing Type precision ball bearings
Bearing Life @ 100% of full 109 shaft revolutions

rated load

Bearing Life @ 40% of full 10<sub>10</sub> shaft revolutions

rated load

Bearing Life @ 20% of full 10<sup>11</sup> shaft revolutions

rated load

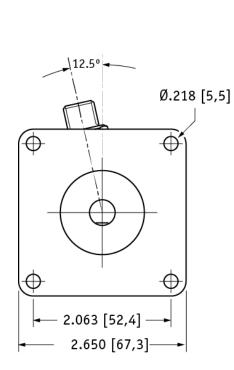
Maximum Operating Speed 8000 RPM Weight (approx) 10.5 oz (300g)

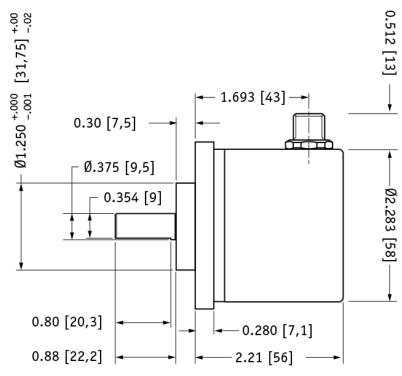
Environmental

Enclosure Design IP67 Shaft Seals IP65

 $\begin{array}{ll} \textbf{Operating Temperature} & -4^{\circ} \text{ to } 176^{\circ} \text{F } (-20^{\circ} \text{ to } 80^{\circ} \text{C}) \\ \textbf{Storage Temperature} & -22^{\circ} \text{ to } 176^{\circ} \text{F } (-30^{\circ} \text{ to } 80^{\circ} \text{C}) \\ \end{array}$ 

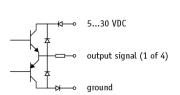
### **Outline Drawing**

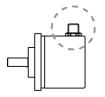




inches [mm]

#### **Output Driver**





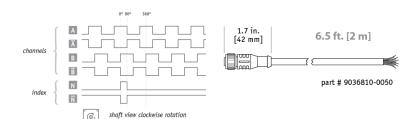


**Output Signal Connections** 

# 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'

Encoder Pin Connections

#### **Output Waveforms**



#### **Cord Set Connections**

pin	conductor	signal	pin	conductor	signal
(1)	white	ground	(5)	gray	N
(2)	brown	530 VDC	(6)	pink	channel
(3)	green	channel A	(7)	blue	channel
(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		

#### **NORTH AMERICA**

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