

# 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

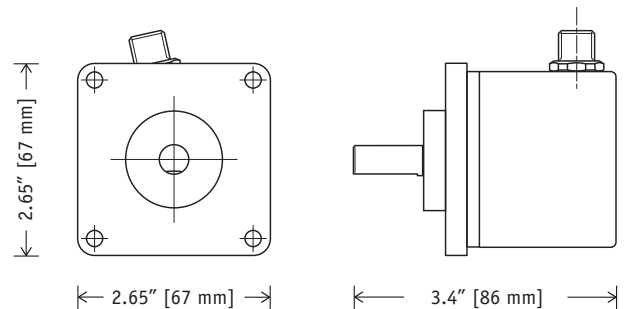
Pulses Per Revolution Options	100, 360, 500, 1024, 2048, 4096, 5000
Output Driver	push-pull ( $V_{out} = V_{in}$ )
Input Voltage ( $V_{in}$ )	5...30 VDC
Input Current	70 mA max.
Load	40 mA max.
Output Level (@ 20 mA load), High	$> V_{in} - 10\%$
Output Level (@ 20 mA load), Low	$< 2.5$ VDC
Pulse Frequency	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)

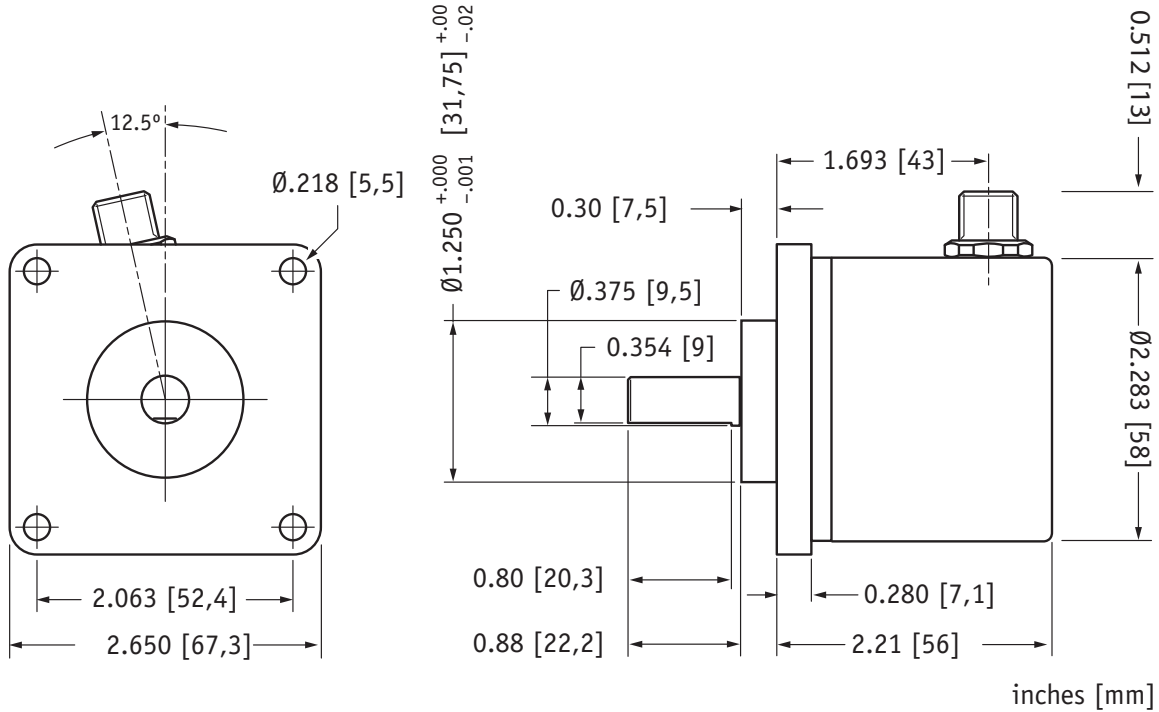
6.5 ft (2 M)

20630 Plummer Street • Chatsworth, CA 91311  
tel: 800.423.5483 • +1.818.701.2750 • fax: +1.818.701.2799

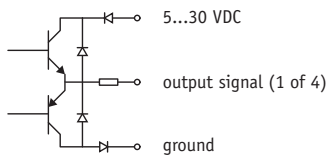


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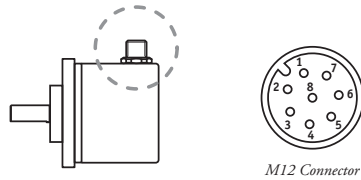
Outline Drawing:



Output Driver:



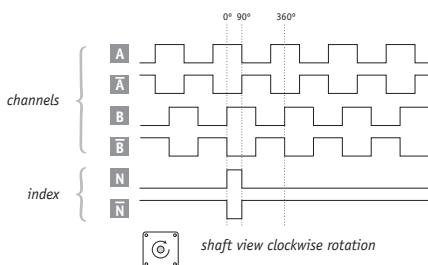
Output Signal Connections:



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

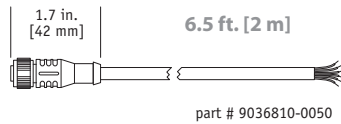


Cord Set Connections

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



version: 5.1 last updated: August 4, 2014

