

Rotary Incremental Encoder

100 to 5000 Pulses Per Revolution

5...30 VDC • Push-Pull Driver

M12 Connector • IP67



CH25



Specification Summary:

ELECTRICAL

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 $> V_{in} - 10\%$
 Low < 2.5 VDC
 Pulse Frequency 200 kHz
 Circuit Protection inverse-polarity protection
 Electrical Connection M12 (8-pin) connector—*mating plug not included*

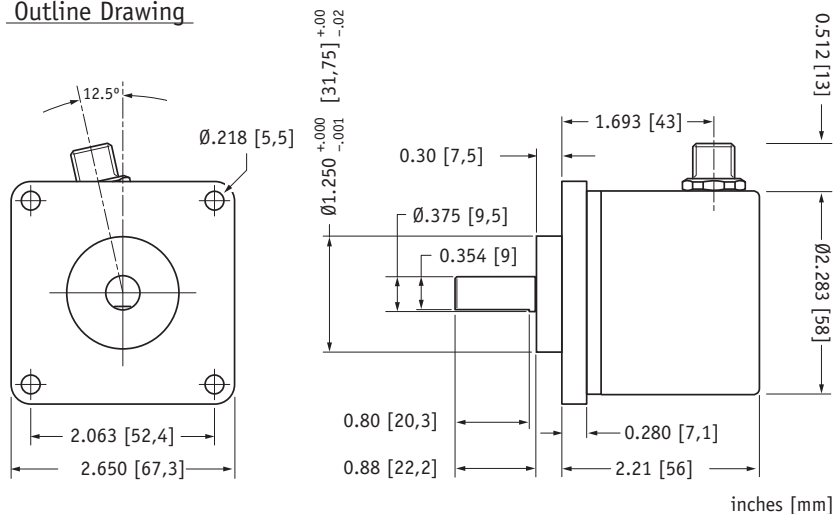
MECHANICAL

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
 @ 40% of full rated load 10^{10} shaft revolutions
 @ 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)

Outline Drawing



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 30VDC 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:

Encoder:

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

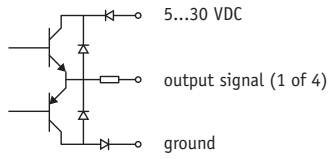
Accessories:

Shielded Cord-Set

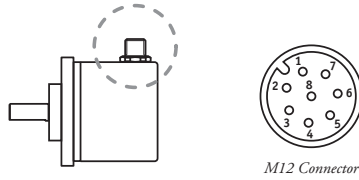
order #: 9036810-0050
 (w/ straight cable socket)

6.5 ft (2 M)

Output Driver:



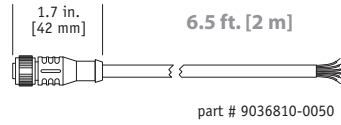
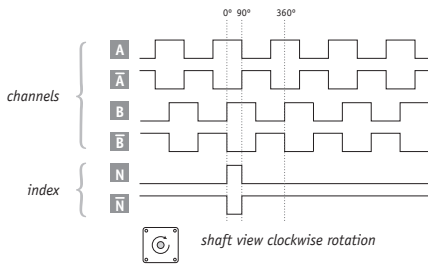
Output Signal Connections:



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