

# **CS15**

# **Rotary Incremental Encoder**

100 to 2500 Pulses Per Revolution Size 15, Low Profile Design • 5..28 VDC, Push-Pull Driver **OEM or Industrial Applications** In Stock for Quick Delivery

#### **GENERAL**

Pulses Per Revolution Options	100, 1000, 2000, 2500	
Output Driver	$push-pull (V_{out} = V_{in})$	
Input Voltage (V <sub>in</sub> )	528 VDC	
Input Current	100 mA max.	
Load	20 mA max.	
Maximum Shaft Speed	8000 RPM	
Maximum Frequency	200 kHz	
Electrical Connection	18-inch, 26 AWG multi-conductor cable	

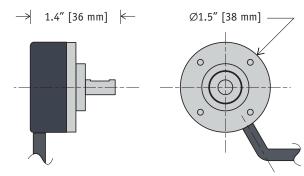
#### **MECHANICAL**

Flange	aluminum		
Shaft	stainless steel		
Shaft Loading, Radial	5 lbs (22 N) max.		
Shaft Loading, Axial	5 lbs (22 N) max.		
Starting Torque approx05 oz-in. (.3	pprox05 oz-in. (.35 N-mm) @ ambient temperature		
Bearing Type precision ball be			
Bearing LIfe, @60% of full rated load	1.2 x 10 <sup>10</sup> revolutions		
Moment of Inertia	6.7 x 10 <sup>-5</sup> oz-in-sec <sup>2</sup> (4.8 gm-cm <sup>2</sup> )		
Maximum Acceleration	1 x 10 <sup>5</sup> rad/sec <sup>2</sup>		
Weight	3 oz.		

#### **ENVIRONMENTAL**

Environmental Suitability	IP50	
Operating Temperature	0–185° F (-20–85° C)	
Storage Temperature	-13°–185° F (-25°–85°C)	
Humidity	98% RH non-condensing	
Vibration	10 g @ 58 to 500 Hz	
Shock	80 g @ 11 ms duration	





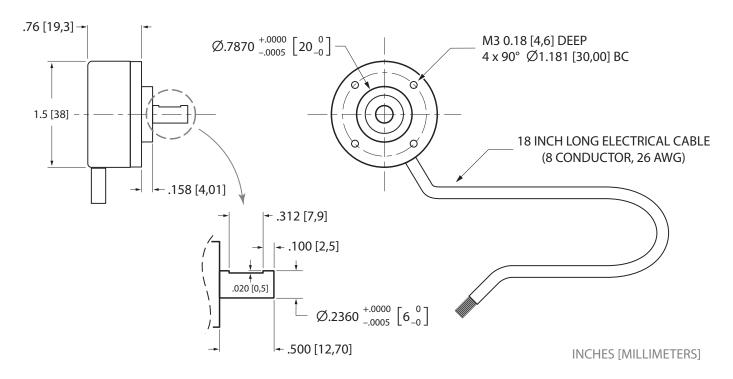
The CS15 is Celesco's compact industry standard size 15, servo-mount incremental encoder. With a low profile of less than an inch in height and a diameter of only 1.5 inches, the economically priced CS15 is perfect for both the OEM and single-piece user alike. Precision ball bearings support a durable stainless steel shaft for reliable, long life operation.

Standard features include 100, 1000, 2000 or 2500 pulses per turn option, a push pull driver and complementary output channels for single-ended or differential output connection. Every encoder ships with state of the art opto-asic circuitry designed to provide a clean, reliable output signal to just about any PLC or electrical interface.

#### **ORDERING INFORMATION**

Order Number	pulses per turn	
CS15-100	100	
CS15-1000	1000	
CS15-2000	2000	
CS15-2500	2500	

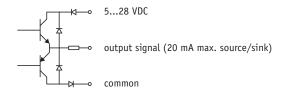
### Outline Drawing:



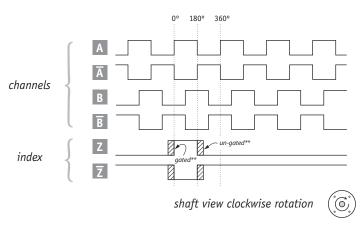
# Signal Connections

color	signal	color	signal
red	528 VDC	white	channel B
black	common	gray	channel B'
green	channel A	yellow	Z
blue	channel A'	orange	Z'

## Output Driver (1 of 4):



# Output Waveforms



\*\*note: - 1000, 2000, 2500 pulses-per-turn options - gated to A , index pulse = 180° - 100 pulses-per-turn option - ungated, index pulse = approx 270°

version: 2.1 last updated: August 4, 2014