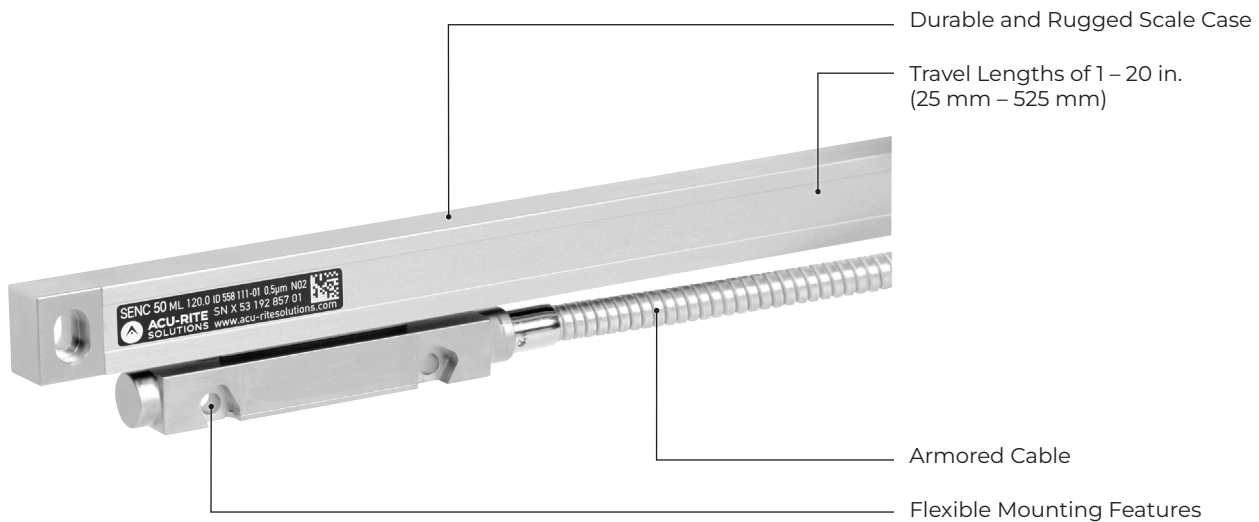


# SENC 50

## Linear Encoder



## Compact Precision Glass Scale Linear Encoder

The SENC 50 is ideal for applications with limited or otherwise restricted installation space. Advanced optical technology provides high accuracy and stability, which is why over 1M of our glass scales are used today.

### Tighter Workpiece Tolerances

The SENC 50 provides exceptional accuracy because it resists size, shape, and density changes due to temperature and humidity variations.

### Improved Machining Efficiency

Greater machining accuracy saves time and costs in correcting mistakes. Plus, Position-Trac™ enables the quick recall of absolute zero (datum) after power loss.

### Reliability in the Harshest Machine Shop Environments

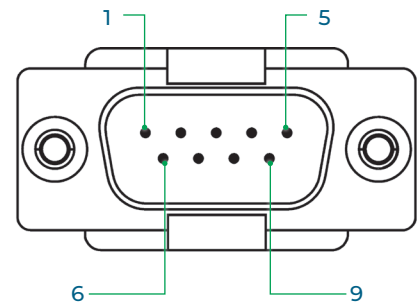
The SENC 50 reaches an IP rating of 53. It reliably operates from 0 to +50°C and in humidity levels of 25 to 95% (non-condensing).

# SENC 50 Technical Data

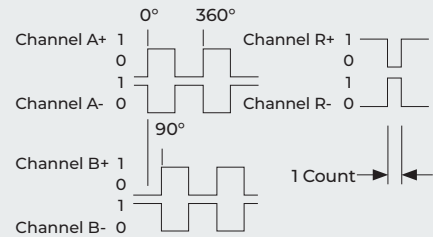
Electrical Specifications	
Light Source	LED (Light-Emitting Diode)
Operating Voltage (VDC)	5.1 ± 0.1
Operating Current (Max.)	0.5µm, 1µm 220mA 5µm, 180 mA
Output Signals Incremental	Square-Wave Voltage Signals Channels A and B in 90° Quadrature Relationship
RM	One Square-Wave Signal
Signal Levels	TTL-Level
Signal Levels RM	TTL-Level

Mechanical Specifications	
Resolution	0.5, 1, 5 µm
Grating Pitch	20 µm
Scale Medium	Reflective from Chrome-Coated Glass
Accuracy (@20°C) in any 1000mm	± 5µm/m
Max. Slew Speed @ 10°C to 30°C Max. Slew Speed @ 0°C to 40°C	40 in/sec 21 in/sec
Force Required to Move Reading Head	≤ 0.5 lbs.
Operating Environment Temperature Relative Humidity	0° to 50°C 25% to 95% (non-condensing)
Storage Environment Temperature Storage Environment Humidity	-20° to 70°C 20% to 85% (non-condensing)
Weight	1.1 lbs. + 0.2/ft of measuring length
Connecting Cable (Armored or Vinyl)	Length: 5, 13, 19 ft. Connector: DE-9P
Maximum Cable Length	20 ft.
Measuring Lengths	1 – 20 in.
Reference Mark Interval	Position-Trac™
Protection (IEC 529)	IP 53 when installed as per instructions

Digital Pin-Outs & Output Signals		
Pin	Signal	Wire
1	No Connect	N/A
2	Channel A+	Green
3	Channel A-	Yellow
4	Channel B+	Pink
5	Channel B-	Red
6	Ground <i>Power Supply and Signal Return</i>	White
7	Supply Voltage	Black
8	Channel R+ <i>+Reference Mark</i>	Gray
9	Channel R- <i>-Reference Mark</i>	Brown
Shell	Shield	N/A



$I_{OH}$  - (High level output current) = 20mA  
 $V_{OH}$  - (High level output voltage) > 2.5Vdc



$I_{OL}$  - (Low level output current) = -20mA  
 $V_{OL}$  - (Low level output voltage) < 0.6Vdc



Acu-Rite Solutions creates precision CNC control and digital readout systems that accelerate efficiency and capability for manual machine tool operators. Our advanced technologies are backed by the continuous innovation of HEIDENHAIN and are designed, built, and supported in the USA. [acu-ritesolutions.com](http://acu-ritesolutions.com)



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