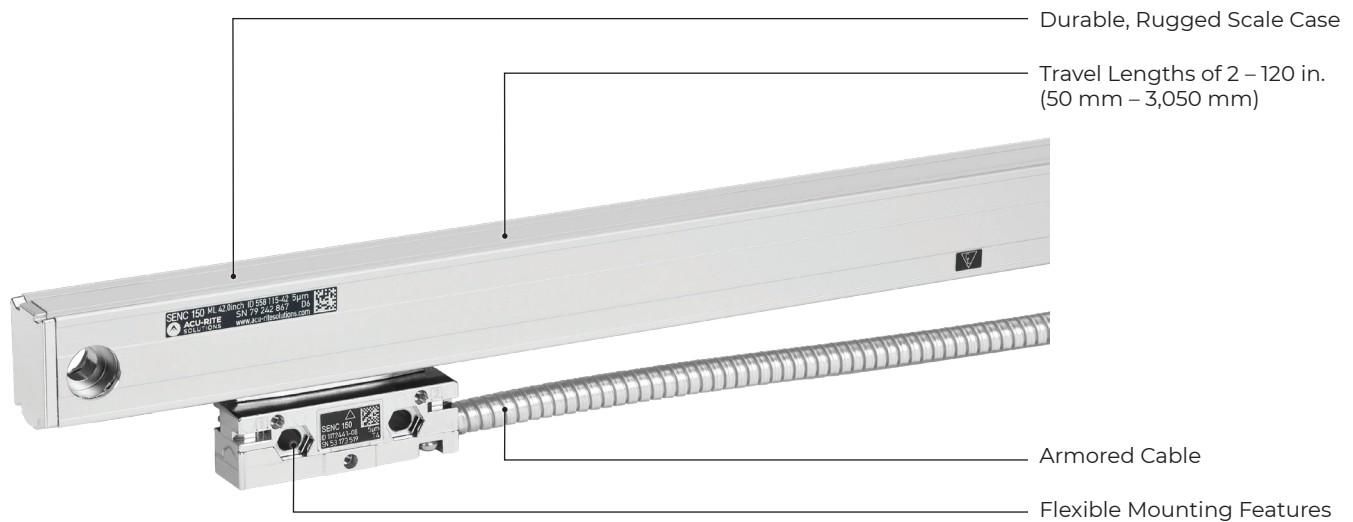


SENC 150

Linear Encoder



Reliable Optical Position Feedback for Machine Tools

Designed for versatility and precision, the SENC 150 delivers reliable position feedback with proven HEIDENHAIN optical technology and a precision glass scale.

Improve Quality and Efficiency

Higher positioning accuracy improves machining quality while helping reduce setup time, scrap, and rework. The SENC 150 combines precision feedback with proven features that keep your machining process productive.

Built for Reliable Performance

Built for demanding machine shop environments, the SENC 150 features rugged construction, a highly-integrated scanning sensor that provides even greater contamination resistance, and flexible mounting for new or retrofit installations.

Why Choose the SENC 150?

- Wide measuring lengths from 50 mm to 3,050 mm
- High-accuracy optical glass scale
- Robust ball-bearing guided design
- Virtually for any machine, including but not limited to, EDMs, grinders, lathes, milling machines and inspection equipment.
- Proven ACU-RITE SOLUTIONS reliability

SENC 150 Technical Data

Electrical Specifications

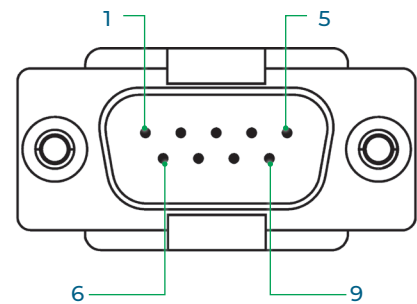
Light Source	LED (Light-Emitting Diode)
Operating Voltage (VDC)	5.1 ± 0.1
Operating Current (Max.)	0.5µm, 1µm 220mA 5µm, 180 mA
Output Signals Incremental	Square-Wave Voltage Signals Channels A and B in 90° Quadrature Relationship
RM	One Square-Wave Signal
Signal Levels	TTL-Level
Signal Levels RM	TTL-Level

Mechanical Specifications

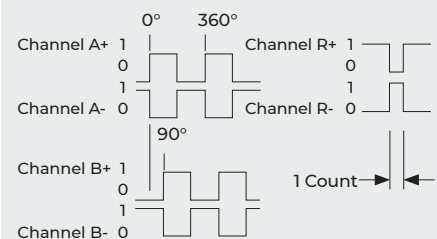
Resolution	0.5, 1, 5 µm
Grating Pitch	20 µm
Scale Medium	Reflective from Chrome-Coated Glass
Accuracy (@20°C) in any 1000mm	± 5µm/m
Max. Slew Speed @ 10°C to 30°C Max. Slew Speed @ 0°C to 40°C	40 in/sec 21 in/sec
Force Required to Move Reading Head	≤ 0.75 lbs.
Operating Environment Temperature Relative 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	1.4 lbs. + 0.05/ft of measuring length
Connecting Cable (Armored or Vinyl)	Length: 5, 13, 19 ft. Connector: DE-9P
Maximum Cable Length	35 ft.
Measuring Lengths	2 – 120 in.
Reference Mark Interval	Position-Trac™
Protection (IEC 529)	IP 53 when installed as per instructions IP 64 with Air Purge

Digital Pin-Outs & Output Signals

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



HEIDENHAIN CORPORATION • (847) 490-1191