# ACU-RITE® SENC 50 Precision Glass Scale



A high performance SENC 50 is a compact, flexible and versatile Precision Glass Scale Linear Encoder designed for applications involving limited or confined mounting spaces. An SENC 50 also withstands elements of contamination found in even the harshest machine shop environment. Every ACU-RITE<sup>®</sup> Precision Glass Scale incorporates our long-standing tradition of quality, reliability, durability and dependability at an affordable price.

### **Product Features**

Travel Lengths of 1" (25mm) - 20" (525mm)

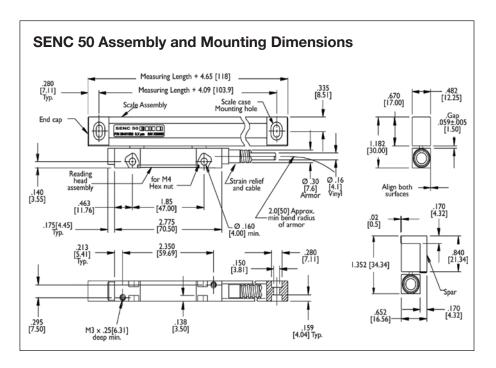
Multiple Resolutions with Exceptional Accuracy 0.5µm (.00002"), 1µm (.00004"), 5µm (.0002")

Armored Cable

Flexible Mounting Features

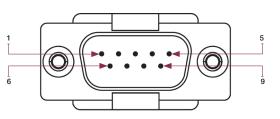
Durable and Rugged Scale Case

Position-Trac<sup>™</sup> - Enables Quick, Easy Workpiece Zero-Reset After Power Loss



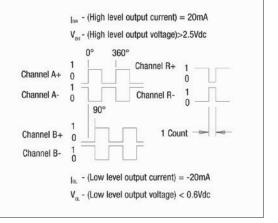
## **SENC 50 Technical Data**

ELECTRICAL SPECIFICATIONS	DIGITAL	
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	
RM	TTL-Level	
MECHANICAL SPECIFICATIONS	DIGITAL	
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 (lbs)	1.1 + 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	
Reference Mark Interval	Position-Trac™	
Protection (IEC 529)	IP53 when installed as per instructions	



## **Digital Pin-Outs and Output Signals**

PIN	SIGNAL	WIRE
1	No Connect	
2	Channel A+	Green
3	Channel A-	Yellow
4	Channel B+	Pink
5	Channel B-	Red
6	Ground Power Supply and Signal Return	White
7	Supply Voltage	Black
8	Channel R+ + Reference Mark	Gray
9	Channel R Reference Mark	Brown
Shell	Shield	





#### **HEIDENHAIN CORPORATION**

333 East State Parkway Schaumburg, IL 60173-5337 USA <sup>∞</sup> (847) 490-1191 <sup>⊥</sup> (847) 490-3931 <sup>∞</sup> info@heidenhain.com

www.acu-rite.com