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® Precision Glass Scale incorporates our long-standing tradition of quality, reliability, durability and dependability at an affordable price.

Product Features

Travel Lengths of 2" (.05m) - 20" (.5m)

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

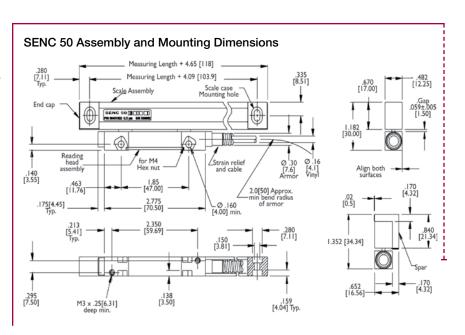
Armored or Vinyl Cable Available

Flexible Mounting Features

Durable and Rugged Scale Case

Position-Trac™ - Enables Quick, Easy Workpiece Zero-Reset After Power Loss





SENC 50 Technical Data

ELECTRICAL SPECIFICATIONS	DIGITAL	ANALOG	
Light Source	LED (Light-Emitting Diode)		
Operating Voltage (VDC)	5.1 ± 0.1	5.0 ± 0.1	
Operating Current (Max.)	0.5μm, 1μm 220mA 5μm 180 mA	75mA	
Output Signals Incremental	Square-Wave Voltage Signals Channels A and B, in 90° Quadrature Relationship	Similar Phasing, but Differential Sinusoidal Current or Voltage Output	
RM	One Square-Wave Signal	Differential Current or Voltage Output	
Signal Levels	TTL-Level	7-16 µA _{pp} or 1.0 V _{pp} (w/ 1K 0hm load) 2-8 µA _{pp} or 1.2 V _{pp} (w/ 100K 0hm load)	

MECHANICAL SPECIFICATIONS	DIGITAL	ANALOG
Resolution	.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	40 in/sec	
Max. Slew Speed @ 0°C to 40°C	21 in/sec	
Force Required to Move Reading Head	≤ 0.5 lbs.	
Operating Environment Temperature	0° to 50°C	
Relative Humidity	25% to 95% (non-condensing)	
Storage Environment Temperature	-20° to 70°C	
Storage Environment Humidity	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.	75 ft.
Measuring Lengths	1 – 20	
Reference Mark Interval	50mm fixed or Position-Trac™	
Protection (IEC 529)	IP53 when installed as per instructions	



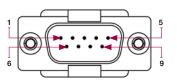
HEIDENHAIN CORPORATION

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(847) 490-1191

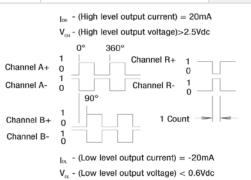
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www.acu-rite.com



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		
los - (High level output current) = 20mA			
V _{cet} - (High level output voltage)>2.5Vdc			



Analog Pin-Outs and Output Signals

PIN	SIGNAL	WIRE
1	Ground	White w/ Green Stripe and Brown
2	Channel A+	Green
3	Channel A-	Yellow
4	Channel B+	Orange
5	Channel B-	Red
6	N/C	
7	Supply Voltage	Black
8	Channel R+ + Reference Mark	Blue
9	Channel R Reference Mark	Violet
Shell	Shield	

