ACU-RITE® SENC 150 Precision Glass Scale



The SENC 150 Precision Glass Scale Linear Encoder incorporates the latest innovation in roller bearing technology for reduced backlash and greater scale travel life. This scale also features a highly integrated scanning sensor that provides even greater contamination resistance. The SENC 150 Precision Glass Scale is designed to satisfy a wide range of application needs including but not limited to, EDMs, grinders, lathes, milling machines and inspection equipment. An SENC 150 Precision Glass Scale withstands elements of contamination found in even the harshest environment. All ACU-RITE® Precision Glass Scales incorporate our longstanding tradition of quality, reliability, durability and dependability at an affordable price.

Product Features

Travel Lengths of 2" (50mm) -120" (3,050mm)

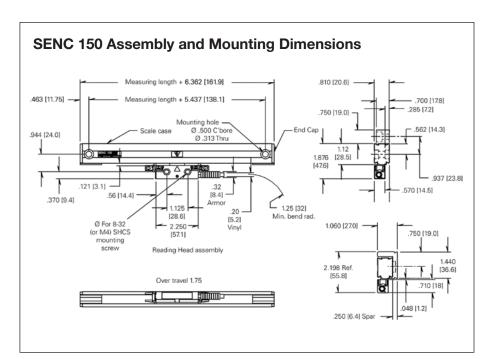
Multiple Resolutions with Exceptional Accuracy 0.5µm (.00002"), 1µm (.00004"), 5µm (.0002")

Armored Cable

Flexible Mounting Features

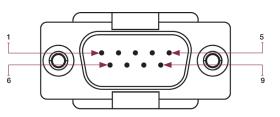
Durable and Rugged Scale Case

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



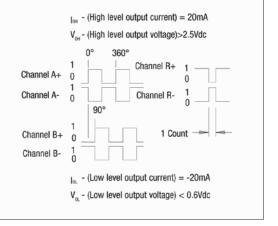
SENC 150 Technical Data

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 Nickel-Coated Glass	
Accuracy (@20°C) in any 1000mm	± 5µm/m	
Max. Slew Speed	40 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 95% (non-condensing)	
Weight (lbs)	1.4 + 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	
Reference Mark Interval	Position-Trac™	
Protection (IEC 529)	IP53 when installed as per instructions IP64 with Air Purge	



Digital Pin-Outs and Output Signals

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





 HEIDENHAIN CORPORATION

 333 East State Parkway

 Schaumburg, IL 60173-5337 USA

 [∞] (847) 490-1191

 [∞] (847) 490-3931

 [∞] info@heidenhain.com

www.acu-rite.com