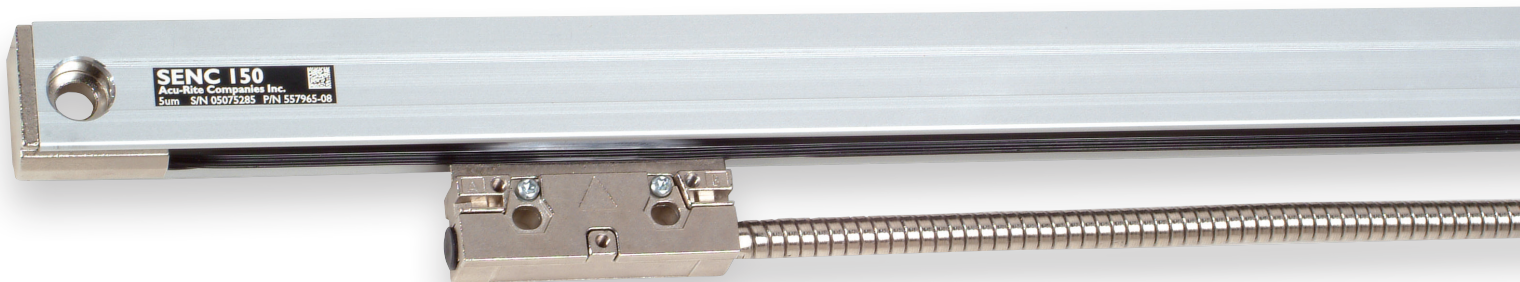


ACU-RITE®

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 0.5 μ m (.00002"), 1 μ m (.00004"), 5 μ m (.0002")

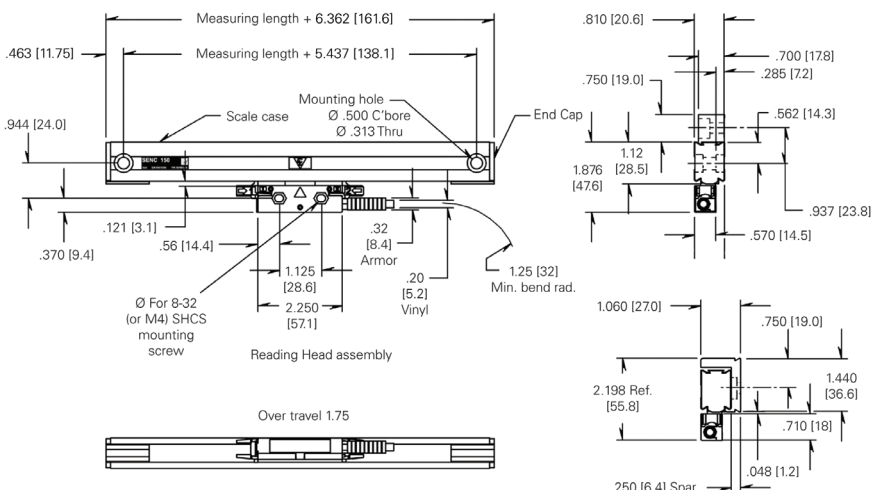
Armored Cable

Flexible Mounting Features

Durable and Rugged Scale Case

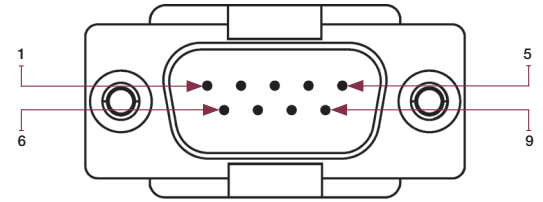
Position-Trac™ - Enables Quick, Easy Workpiece Zero-Reset After Power Loss

SENC 150 Assembly and Mounting Dimensions



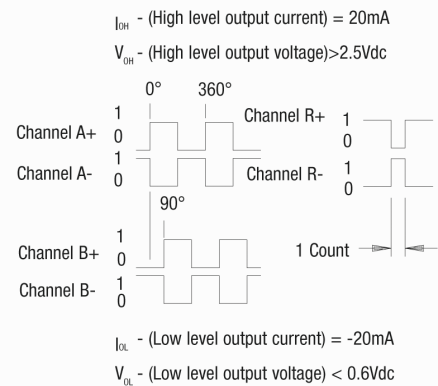
SENC 150 Technical Data

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	0° to 50°C
Relative Humidity	25% to 95% (non-condensing)
Storage Environment Temperature	-20° to 70°C
Storage Environment Humidity	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 <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	



ACU-RITE®

HEIDENHAIN CORPORATION

333 East State Parkway
Schaumburg, IL 60173-5337 USA

(847) 490-1191

(847) 490-3931

info@heidenhain.com

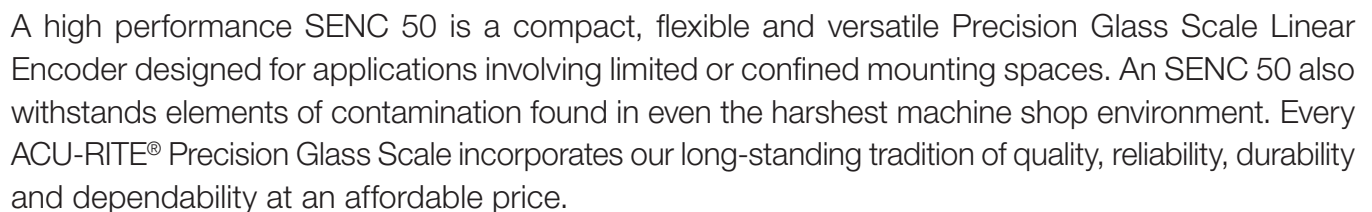
www.acu-rite.com



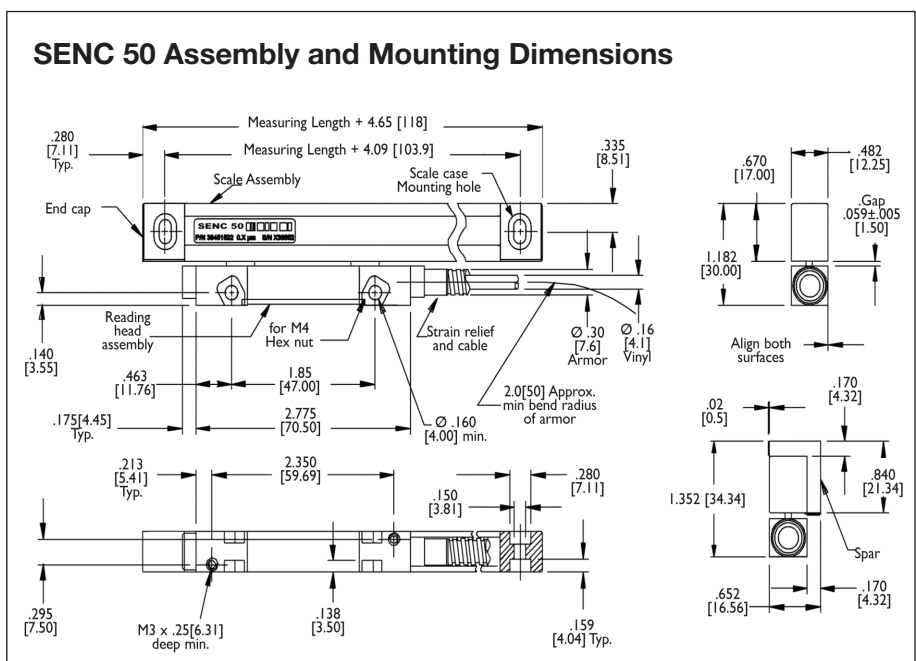
Certifications

ISO-9001, UL, CSA, CE

SENC 50 Precision Glass Scale

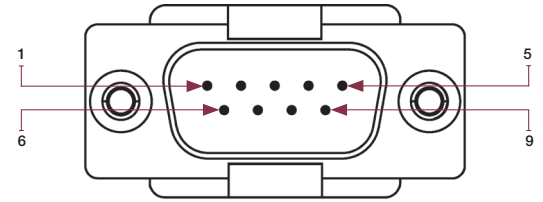


Position-Trac™ - Enables Quick, Easy Workpiece Zero-Reset After Power Loss



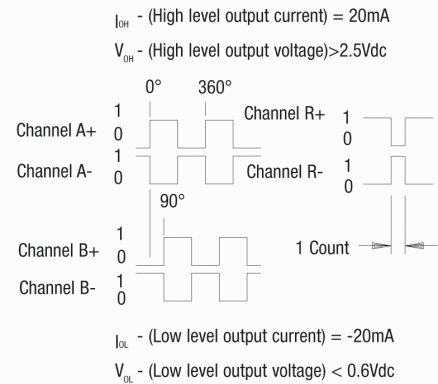
SENC 50 Technical Data

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	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.
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 <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	



ACU-RITE®

HEIDENHAIN CORPORATION

333 East State Parkway
Schaumburg, IL 60173-5337 USA

(847) 490-1191

(847) 490-3931

info@heidenhain.com

www.acu-rite.com

Certifications
ISO-9001, UL, CSA, CE