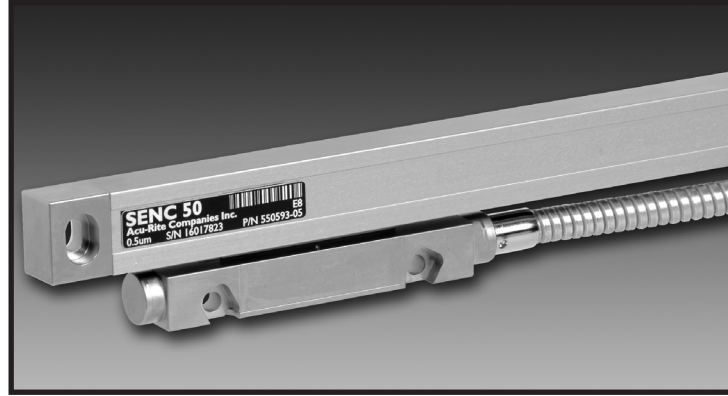


Acu-Rite Companies Inc.

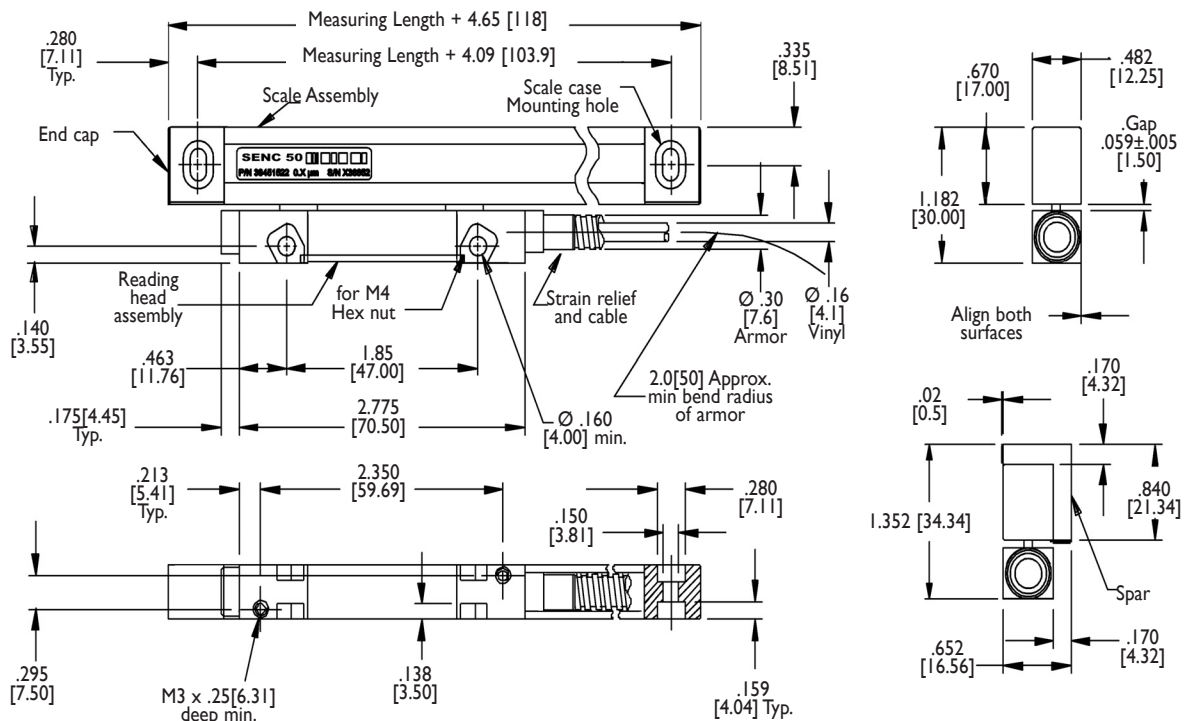
Precision Glass Scale SENC 50

A high performance **SENC 50** is a compact, flexible and versatile precision glass scale designed for applications involving limited or confined mounting spaces. A **SENC 50** also withstands elements of contamination found in even the harshest machine shop environment. Every **Acu-Rite Companies Inc.** precision glass scale incorporates **Acu-Rite Companies Inc.'s** long-standing tradition of quality, reliability, durability and dependability at an affordable price.



Features

- ◆ 1" (.025m) to 20" (.5m) measuring lengths available.
- ◆ Resolutions of .00002" (0.5µm), .00004" (1µm) & .0002" (5µm) with exceptional accuracy.
- ◆ Flexible mounting features.
- ◆ Durable and rugged scale case.
- ◆ Armored or vinyl cable available.
- ◆ Position-Trac™ - enables quick and easy workpiece zero-reset after power loss.
- ◆ 3 Year HASSLE-FREE Warranty.

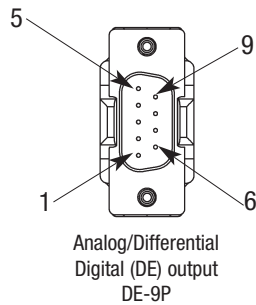


SENC 50 assembly and mounting dimensions

Electrical Specifications

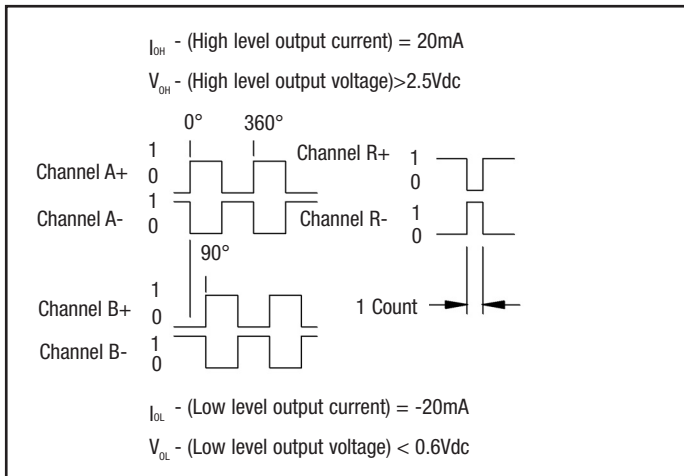
Electrical Specifications	Digital	Analog
Light Source	LED (light-emitting diode)	
Operating voltage (VDC)	5.1 ± 0.1	
Operating current (Max. mA)	0.5, & 1 μm 220 mA	5 μm 180 mA
Output signals Incremental	Square-wave voltage signals channels A and B, in 90° quadrature relationship	Similar phasing, but 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 Ohm load)
RM	TTL-level	2-8 μA _{pp} or 1.2 V _{pp} (w/ 100K Ohm load)

Options



Digital pin-outs and output signals

DE Pin	Signal	DE Wire color
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	



Mechanical Specifications

Mechanical Specifications	Digital	Analog
Resolution (μm)	0.5, 1, & 5	
Grating pitch (μm)	20	
Scale medium	Reflective from chrome-coated glass	
Accuracy (@ 20° C) in any 1000mm	±3, ±5 μm	
Max. slew speed (in/sec) @ 10° C to 30° C @ 0° C to 40° C	40 21	
Force required to move reading head (lbs.)	≤ 0.5	
Operating Environment Temperature Relative Humidity	0° to 50° C 25% to 95% (non-condensing)	
Storage Environment Temperature 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	Length=5, 13, 19 ft. Connector: DE-9P
Max. cable length (ft)	20	75
Measuring lengths (in)	1- 20	
Reference pulse interval	50mm fixed or Position-Trac™	
Repeatability	Within one resolution count	
Protection (IEC 529)	IP53 when installed as per instructions	

Analog pin-outs and output signals

Pin	Signal	Wire color
1	Ground	White w/ Green stripe & 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	

