

SK1

Cable Actuated Sensor Voltage Divider Output Signal

The SK1 is a perfect solution for applications ranging from mobile construction equipment to hydraulic lift tables and anything else in between. Available in both 250 and 400-inch stroke ranges, this model offers the ultimate ease-of-use, compact design and user flexibility. Need to mount it upside down? Simply rotate its stainless mounting bracket to where you want it. Need the electrical connector to point in a different direction? Just rotate the rear cover to point the connector to the desired direction.

The SK1 is manufactured with a precision high-cycle plastic hybrid potentiometer and durable spring-loaded stainless steel measuring cable to deliver an accurate reliable voltage divider position feedback signal over the entire stroke.

FEATURES

- Flexibility - Every unit offers linear position up to 400" (10m) providing flexibility to work across a wide range of aerial applications. This off-the-shelf series offers a wide selection of industry standard output signals (4-20mA, 0-10Vdc, CANOpen and J1939 CANbus).
- Ease of use - A compact design, a stainless-steel mounting bracket for multiple installation options and an easily-adjustable measuring cable orientation make this sensor easy to install and manage.
- Superior engineering - TE provides engineering partnership to customize for specific applications. There is also an option to have two sensors elements in the same package with no additional space requirement. This provides fail-safe security for aerial applications.

APPLICATIONS

Accurate measurement in customized applications industrial and commercial transportation like:

- Fork lifts
- Telescopic arms
- Boom lifts
- Scissor lifts

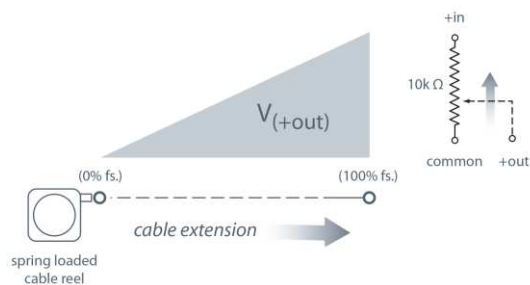
Linear Position to 400 inches (10 m)

Compact Design • Simple to Install

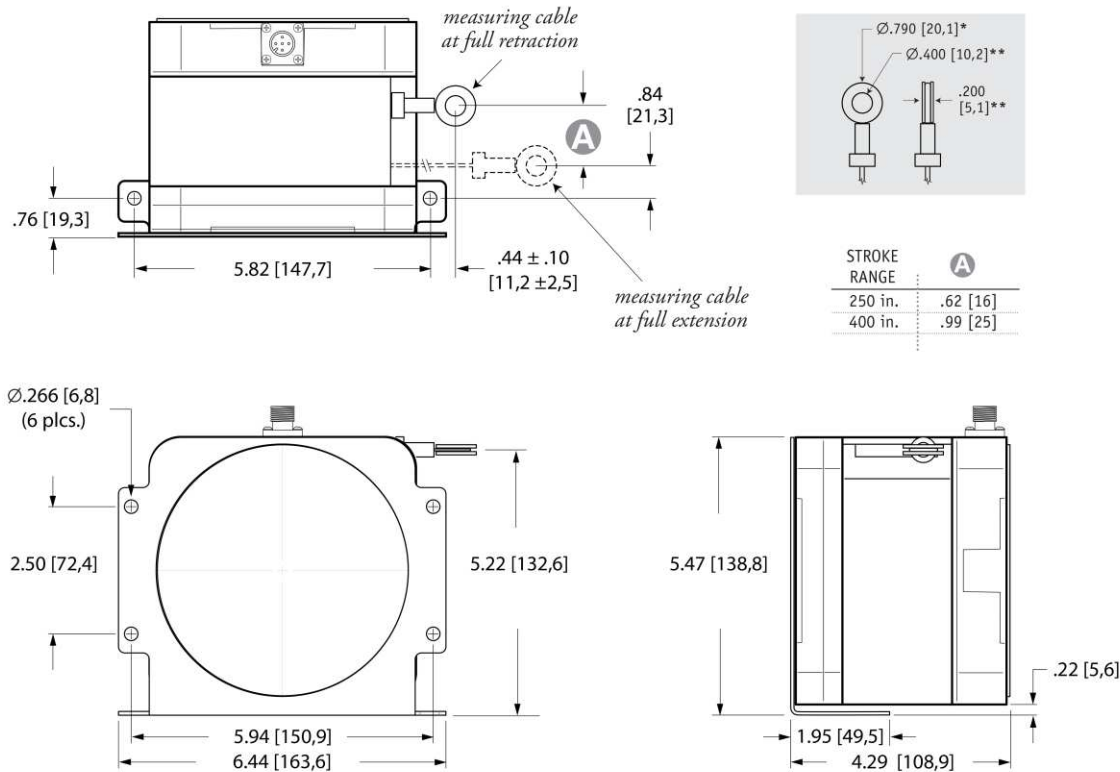
User Adjustable Measuring Cable Orientation

Specifications

Stroke Range Options	250 inches (6.4 m), 400 inches (10.2 m)
Output Signal	voltage divider (potentiometric)
Accuracy	.35% FS.
Repeatability	.05% FS.
Resolution	essentially infinite
Measuring Cable	.031-inch dia. bare stainless steel
Maximum Cable Velocity	60 inches per second
Maximum Cable Acceleration	5 g
Measuring Cable Tension	23 oz. (6.4 N) $\pm 40\%$
Sensor	plastic-hybrid precision potentiometer
Input Resistance	10K ohms, $\pm 10\%$
Power Rating, Watts	2.0 at 70°F
Recommended Maximum Input Voltage	30 V (AC/DC)
Output Signal Change Over Full Stroke Range	94% $\pm 4\%$ of V(+in)
Cycle Life	$\geq 250,000$
Electrical Connection	4-pin M12 connector, mating plug included
Enclosure	glass-filled polycarbonate
Environmental	IP67
Operating Temperature	-40° to 185° F (-40° to 85° C)



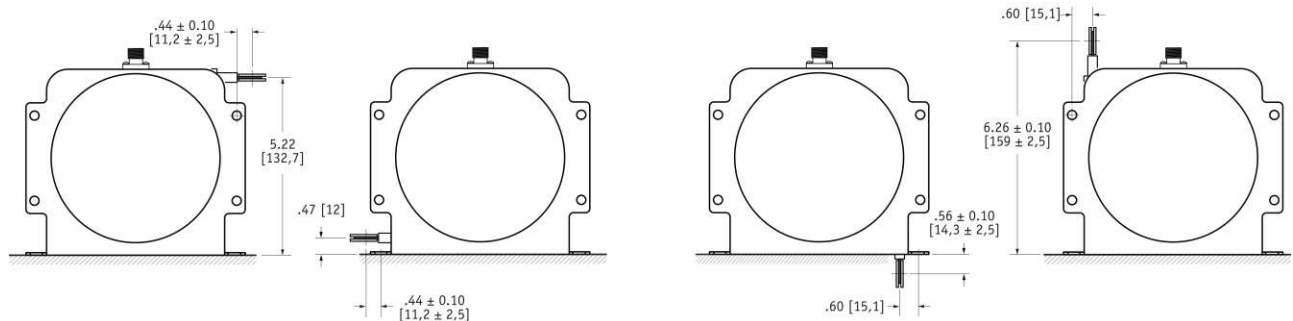
Outline Drawing



DIMENSIONS ARE IN INCHES [MM]
tolerances are 0.04 IN. [1,0 MM] unless otherwise noted.

* tolerance = +.005 - .001 [+0,1 -0,0]
** tolerance = +.005 - .005 [+0,1 -0,1]

Mounting Options

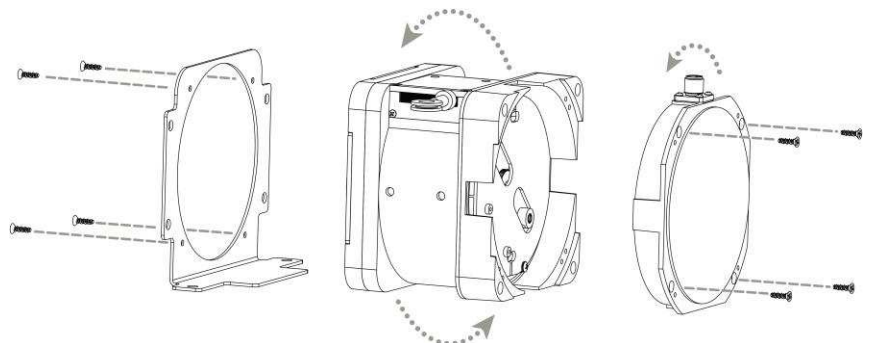


To change cable exit direction:

simply remove the 4 bracket mounting screws and rotate sensor body to desired direction.

To change electrical connector orientation:

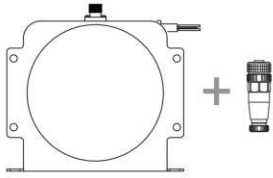
remove the 4 rear screws and carefully remove the rear cover and rotate cover.



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Voltage Divider Output Signal

Ordering Information



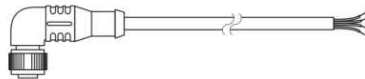
Part Number	full stroke range	accuracy	max. acceleration	measuring cable tension (± 40%)
SK1-250-3	250 in (6.4 m)	.35%	5 g	23 oz. (6.4 N)
SK1-400-3	400 in (10.2 m)	.35%	5 g	23 oz. (6.4 N)

includes mounting bracket & mating connector.

Optional Cordsets



Part Number	length	wire size	connector
9036810-0040	13 ft (4 m)	22 AWG (.34mm ²)	straight 4-pin M12

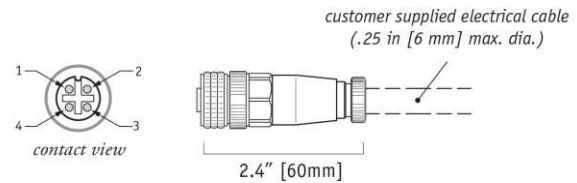


9036810-0041	13 ft (4 m)	22 AWG (.34mm ²)	90° 4-pin M12
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Electrical Connection

signals	pin	pin - color
+in	1	1 - brown
common	2	2 - white
+out	3	3 - blue
n/c	4	4 - black

field installable connector



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