

# SPICER SC26

## DESCRIPTION

The Spicer SC26 is the only magnetic field cancellation system for electron beam tools in semiconductor manufacturing facilities designed to mitigate the high-frequency fields unique to overhead wafer transport robots.

## KEY FEATURES

- Uses DC + AC sensors to cancel fields from DC to 10k Hz
- Mixes up to four sensors to create a virtual sensor “inside” the EM column with broadband performance
- Advanced controller with a touchscreen user interface, automatic setup, DC reset feature, simultaneous display of DC & AC fields, and optional external monitoring
- Quick confirmation that tools are clear for use with green “Field OK” indication on the sensor(s) & controller
- Adapts to field changes within 10  $\mu$ s



## SPECIFICATIONS

Field Cancelling	
Components Cancelled	X, Y, Z fields
Dynamic Range* <sup>1</sup>	5 $\mu$ T Pk-Pk
With SC26/AC Sensor(s)	
Field Cancelling Factor	20 x typ. at 9 kHz 40 x typ. at 60 Hz
Cancelling Noise Limit (1 Hz to 10 kHz)	0.6 nT RMS total
With SC26/AC Sensor(s) & SC24/DC+AC Sensor(s)	
Ambient DC Field Limit	$\pm$ 200 $\mu$ T max
Field Cancelling Factor	20 x typ. at 9 kHz 200 x typ. at 60 Hz & DC
Cancelling Noise Limit (DC to 10 kHz)	0.7 nT RMS total
DC drift* <sup>2</sup>	< 2 nT/ 24 hours
Power	
	120/240 V 50/60 Hz, 100 VA
<sup>1</sup> * Dynamic range is stated at the nominal AC power input of 120 or 240 volts RMS. De-rate linearly for lower voltages.	
<sup>2</sup> * Drift (@23°C $\pm$ 2°C, after 2 hour warm-up)	

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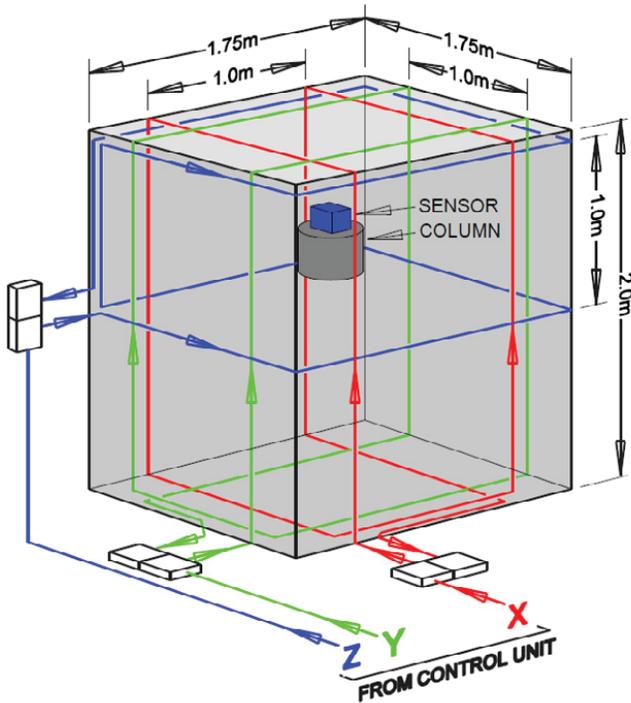
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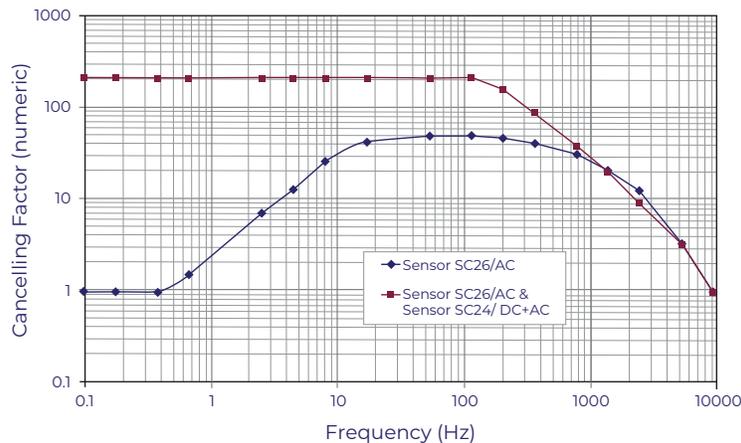
## INSTALLATION EXAMPLES



### Sensor Options

- 1 x SC26/AC Sensor – Field Cancellation from 10 to 10k Hz
- 2 x SC26/AC Sensors – Creates a “Virtual Sensor” at the center of the electron beam column, optimizing cancellation from 10 to 10k Hz
- 1 x SC26/AC Sensor, 1 x SC24/DC+AC Sensor – Field Cancellation from DC to 10k Hz
- 2 x SC26/AC Sensors, 2 x SC24/DC+AC Sensors – Creates a “Virtual Sensor” at the center of the electron beam column, optimizing cancellation from DC to 10k Hz

## CANCELLING FACTOR



The SC26 can use the SC26/AC Sensor to cancel fields from 10 to 10k Hz. When paired with the SC24/DC+AC Sensor, the cancellation bandwidth expands to DC to 10k Hz.



For more information about the Spicer SC26, scan this QR code.

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