Save Time **Save Expense** **Improve Yields**

Semiconductor fabs and OEMs worldwide value the accuracy, precision and versatility of TEST &INSPECTION's semiconductor measurement devices. The most efficient and effective measurement devices for tool optimization, stabilization and standardization.

WS

EX-QS

Wafer Mapping Sensor

Metrology Sensors

The EX-QS is an EX-Q wafer mapping sensor repackaged in a smaller case to accommodate applications where space is limited, or where a smaller sensor footprint is desired.

The EX-QS enables reliable detection of semiconductor wafers and slotting errors in cassettes or FOUPs. It can be used with mixed wafer batches, for example dark or coated wafers can be combined with bright wafers and it is compatible with flatted or notched wafers of any size including 300mm. Available in two standoff distances.

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Nordson
TEST & INSPECTION

EX-QS Wafer Mapping Sensor

Dark or Coated Wafers

Excels at detecting dark or coated wafers at factory gain setting.

- Laser transmitters and receivers are fine-tuned for maximum sensitivity to perform out of the box.

Reliably Detects

Cross-slotted and ultra-thin wafers.

- Thin laser stripe (0.05mm) combined with multiple apertures and spatial filtering reduces noise, improving mapping accuracy.

Insensitive to Interference

Insensitive to interference from the mapping environment.

- Beam geometry and built-in ambient light filters minimize stray reflections and ambient lighting influences.
- Accommodates all SEMI standard wafers, regardless of size or edge geometry, through patented dual and wide beam technologies.
- There are no moving parts that can result in particulate contamination.

For more information, speak with your Nordson representative or contact your Nordson regional office

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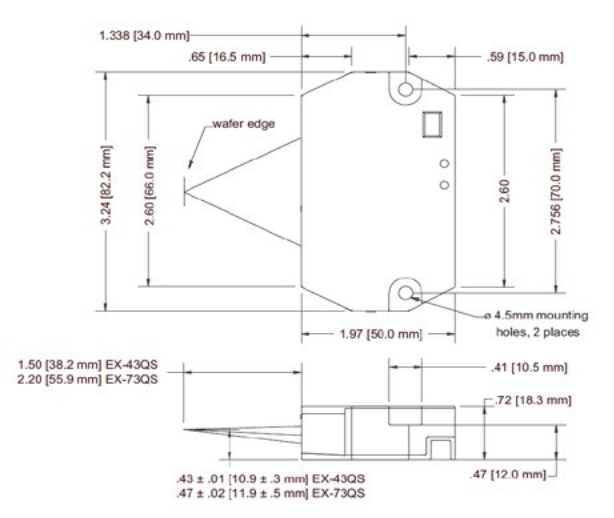
Specifications	EX-43S	EX-73QS
Method of Detection	Dual Wide Beam	
Optimum Detecting Distance	1.5”	2.2”
Maximum Detecting Range	1.4” to 1.6”	2.05” to 2.35”
Supply Voltage	9 to 24V DC	
Current Consumption	130 mA typical, 200 mA max.	
Light Source	2 X 850 nm diode lasers	
- at Exit Port	2 X 0.600 mW max.	
- at CDRH Aperture	0.077 mW max.	
Laser Class	Class 1 (CDRH)	
Detectable Objects	Transparent, opaque and mirror-surfaced objects	
Laser Spot Size	10mm x 0.05mm	16mm x 0.06mm
Working Angle Range	± 16 degrees relative to the sensor front surface	± 11 degrees relative to the sensor front surface
Operation	Light-ON/Dark-ON switch, Enable, Gain setting	
Response Time	400-µs max.	
Minimum Pulse Width	5 msec. (Options available)	
Indicator	Laser power - RED led, Signal OUT - GREEN led	
Control Output	MOSFET open drain, Low-True, 80mA max @24V DC	
Connections	16”, 4 conductor cable (Options available)	
Temperature Limits	Operating: 32 to 104°F (0 to 40°C) Storage: -20 to 130°F (-30 to 55°C)	
Materials	Lenses: glass, plastic; Case: aluminum	
Weight	4.3 oz (122g)	

Dimensions



Careful alignment and adjustment of the sensor is required for optimal performance. Read the instructions before installation. Failure to properly install, align, or use the EX-QS wafer mapping sensor may reduce its performance.

EX-QS laser photoelectric sensors contain no user serviceable parts. Refer all servicing to Nordson Corporation. Semiconductor lasers used in the EX-QS wafer mapping sensor generate Class 1 invisible laser radiation. Avoid looking directly at the laser beam.

These sensors conform to IEC 60825-1 (2001-08) (laser safety) and to the laser safety requirements of SEMI S2-0200.