

# QUANTOM Tx™

MICROBIAL CELL COUNTER



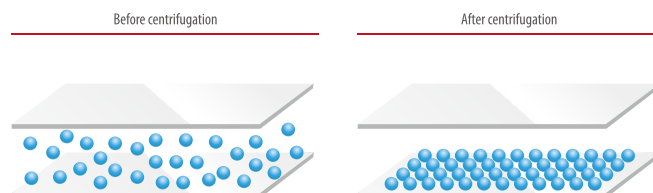
## Rapid Single Bacterial Cell Quantification

The QUANTOM Tx™ Microbial Cell Counter can automatically identify and count individual bacterial cells in minutes. Bacteria are an incredibly diverse group of organisms that come in a variety of shapes, sizes, and arrangements, making quantification a challenging feat. The ubiquitous colony counting method is a time-consuming, unreliable estimation at best and even expensive flow and laser scanning cytometers register each particle, single or clustered, as a single event. The QUANTOM Tx™ counts fluorescence-stained microbial cells through automated fluorescence imaging and analysis to produce accurate and objective bacterial cell counts.

### QUANTOM™ Innovations for Increased Counting Accuracy

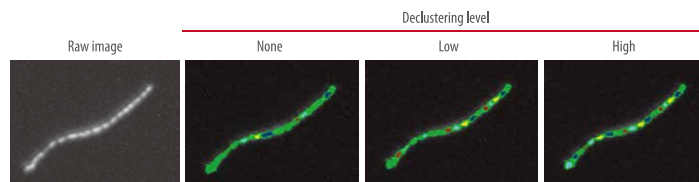
#### Uniform distribution and immobilization

The QUANTOM™ Cell Loading Buffer I immobilizes cells within the medium and the QUANTOM™ Centrifuge evenly distributes the cells along a single plane for accurate detection.



#### Bacteria-specific declustering algorithm

The QUANTOM Tx™ has a novel detection and declustering algorithm that can accurately count individual bacterial cells in the tightest clusters or the longest chains.



### Counting with the QUANTOM Tx™

1. Mix cells with stain and loading buffer. Load into a counting slide.
2. Spin the slide in the QUANTOM™ Centrifuge.
3. Put the slide in the QUANTOM Tx™. Press Count.
4. Review data.



## Product Specifications

### QUANTOM Tx™ Microbial Cell Counter

Physical Characteristics	<b>Instrument type</b> Benchtop bacterial cell counter
	<b>Touchscreen</b> 10" capacitive touchscreen, 1280 x 800 pixels
Physical Characteristics	<b>Dimensions</b> 43.3 x 31.0 x 22.5 cm (17.0 x 12.2 x 8.8 in)
	<b>Weight</b> 10.8 kg (23.9 lb)
Technical Specifications	<b>Cell detection method</b> Automated fluorescence microscopy
	<b>Processing time</b> ~ 1 minute (to capture and analyze 20 images)
	<b>Sample concentration range</b> 1 x 10 <sup>5</sup> to 1 x 10 <sup>9</sup> cells/mL (optimal: 5 x 10 <sup>5</sup> to 5 x 10 <sup>8</sup> cells/mL)
	<b>Cell size range</b> 0.3-50 µm
	<b>Sample volume</b> Loading volume: 5-6 µL, measuring volume: 0.17 µL (20 images)

### QUANTOM Tx™ Centrifuge

Physical Characteristics	<b>Instrument type</b> Benchtop centrifuge
	<b>Dimensions</b> 21 x 21 x 22 cm (8.3 x 8.3 x 8.7 in)
	<b>Weight</b> 5.64 kg (12.4 lb)
Technical Specifications	<b>Maximum capacity</b> Up to 8 QUANTOM™ M50 Cell Counting Slides
	<b>Maximum RPM</b> 4,000 RPM
	<b>Safety features</b> Safety lid lock, lid drop protection, automatic door release
	<b>Electrical requirements</b> 110V, 60 Hz, 1 A or 220-240 V, 50/60 Hz, 0.5 A

### QUANTOM Tx™ M50 Cell Counting Slides

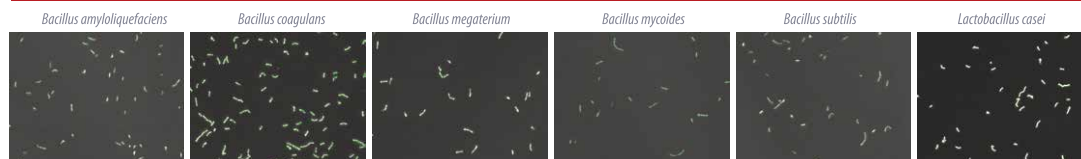
Physical Characteristics	<b>Material</b> Poly(methyl methacrylate) (PMMA)
	<b>Dimensions</b> 25 x 75 x 1.65 mm
	<b>Chamber volume</b> 5-6 µL

## Ordering Information

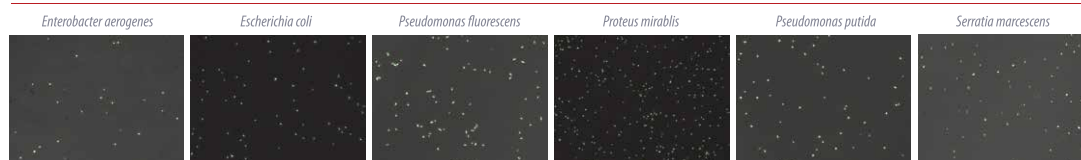
	Cat #	Product	Quantity
Instruments	Q10001	QUANTOM Tx™ Microbial Cell Counter	1
	Q10002	QUANTOM™ Centrifuge	1
Slides & Reagents	Q12001	QUANTOM™ M50 Cell Counting Slides, 50 Slides	1 box
	Q12002	QUANTOM™ M50 Cell Counting Slides, 500 Slides	10 boxes
	Q13501	QUANTOM™ Total Cell Staining Kit	1 kit
	Q13101	QUANTOM™ Total Cell Staining Dye	1 x 0.5 mL
	Q13001	QUANTOM™ Cell Loading Buffer I	2 x 1 mL
Security Software	Q13102	QUANTOM™ Calibration Beads	1 x 0.5 mL
	Q11001	21 CFR Part 11 Package	1
Accessories	P10001	LUNA™ Printer	1
	P12001	LUNA™ Printer Paper - thermal, 700 prints	3 x 2 rolls

## Bacteria Validated on the QUANTOM Tx™

### Gram positive



### Gram negative



This is a partial list of bacteria tested on the QUANTOM Tx™.



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