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Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

Россия (495)268-04-70

Казахстан (772)734-952-31

<https://azenta.nt-rt.ru/> || aez@nt-rt.ru

Camera-Based Reader for SBS Racks (formerly Perception™ HD)



20-4018 | Camera-Based Reader for SBS Racks (formerly Perception HD)

Camera-Based Reader for SBS Racks offers fast identification of SBS-format racked, 2D-coded sample storage tubes, without the need to remove tubes from racks; backbone of many sample storage and tracking systems, for applications including biobanks, compound libraries and other high-throughput storage environments

- Advanced camera-based imaging system
- Automation and robotics friendly
- Easy integration with Decoding Software
- Additional sample security
- Seamless changing of rack format
- No decoding attempt for empty tube positions

Overview

Given the variety of 2D coded tubes on the market, Azenta Life Sciences Camera-Based Reader for SBS Racks is designed and developed with broad compatibility in mind, reading any 2D coded sample tube currently on the market, not only those supplied by Azenta Life Sciences. Designed and developed entirely with the end user in mind, the Camera-Based Reader for SBS Racks offers fast identification of SBS-format racked, 2D-coded sample storage tubes, without the need to remove tubes from racks.

Using advanced camera-based imaging systems, Camera-Based Readers are ideal for more challenging applications and environments, such as integrating into robotic systems, cold environments or when speed and size of reader are important. Camera-Based Readers form the backbone of many sample storage and tracking systems, for applications including biobanks, compound libraries and other high-throughput storage environments.

An integrated multi-position linear barcode reader is available for the simultaneous reading of rack linear 1D barcodes. Supplied with a 5-year warranty.

Key Features

- **Flexible Applications Through Advanced Design**
 - Advanced camera-based systems for more challenging applications, such as integration into robotic systems
 - Also ideal for cold store and low temperature environments and where speed and small footprint are important
- **Automation & Robotics Friendly**
 - A gripper cutout section around the scan window to enable easy robotic handling of shallow racks
 - Small footprint, barely larger than the SBS rack itself, aiding greater compatibility with automated systems including liquid handling
- **Easy System Integration with Decoding Software**
 - Used in conjunction with Azenta Life Sciences Decoding Software offer the most advanced data export options available
 - Easy integration with database sample tracking and LIMS systems
 - Compatible with MS Word templates, with powerful design and formatting capabilities to create customized reports
- **Additional Sample Security**
 - Capable of reading both tube and rack 2D-codes simultaneously, to provide automatic rack orientation and greater sample security
 - Azenta Life Sciences storage tube racks can be supplied with the option of carrying a unique 2D-code identifier
- **Linear 1D Barcode Reader (Optional)**
 - Integrated multi-position 1D linear barcode reader helps to simplify robotic integration
 - Ideal for decoding more challenging (non-Azenta Life Sciences) linear barcodes and provides rack orientation
- **Stored Rack Profiles**
 - Custom rack profiles can be set up for the regular use of routine, saving set-up time
 - Example: empty rows or control tubes in specific positions
- **Seamless Changing of Rack Format**
 - Using either built-in, or customized rack profiles, Azenta Life Sciences Decoding Software will automatically determine which rack type is being read
 - Software will select the appropriate rack profile for decoding and exporting tube data
 - Switch between 24, 48, 96, 240 and 384-format racks without making any changes to Camera-Based Reader for SBS Racks or Decoding Software
- **“No Tube” Feature Eliminates Errors**
 - Able to discriminate between a tube with a code that cannot be decoded, and an empty rack position
 - Will not decode empty tube positions, so data files are kept clean
 - Decoding speed is optimized as wasted data entry is eliminated

Specifications

Parameter	Camera-Based Reader for SBS Racks
Code formats read	2D data matrix, QR codes, ISO 16022, square and rectangular format, ECC 200, 0 - 20 grid sizes, white on black and black on white, numeric and alphanumeric
Sensor type	18 megapixel CMOS sensor

Light source	2 x diffused LED light boards
Linear barcode reader	optional (70-4012): plug directly into PC
Camera resolution	18 megapixel
Read time	<1 second
Ambient operating temperature	5°C to 40°C
Operating humidity	10-90% (non-condensing)
Tube compatibility	almost all tubes in SBS format rack; either 24, 48, 96, 240 or 384-formats
Dimensions (H x W x D)	160 x 97 x 137mm
Weight	1000g
Power supply	powered by USB
Cable interface	USB 3.1
Operating systems	Windows 7, Windows 8, Windows 10

Ordering Information

Use these part numbers to request a quote, a demo or to contact an expert:

Part number	Description
Camera-Based Reader for SBS Racks	
20-4018	whole rack reader with high definition camera for racks of 2D labelled tubes; small-footprint single camera-based solution for very rapid reading and ideal for integration, single USB 3.1 SS cable for power and data-transfer; supplied with 5 year warranty; 1 reader
Compatible adapters	

70-4012	Multiple Position Linear Barcode Adapter ; including USB Opticon barcode reader for Camera-Based Reader for SBS Racks (20-4018) and Camera-Based Reader for Acoustic Tubes (20-4013); 1 adapter
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