

# ABR Series



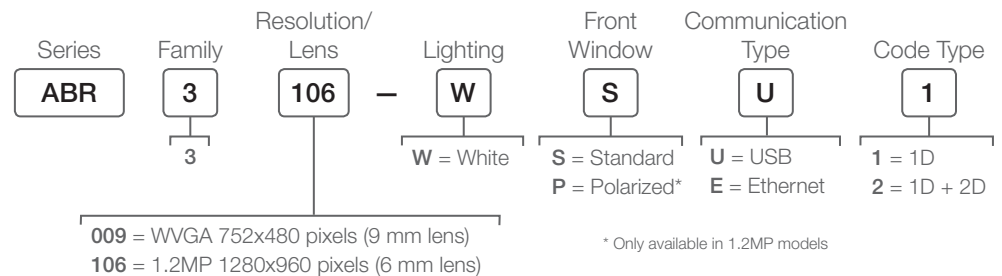
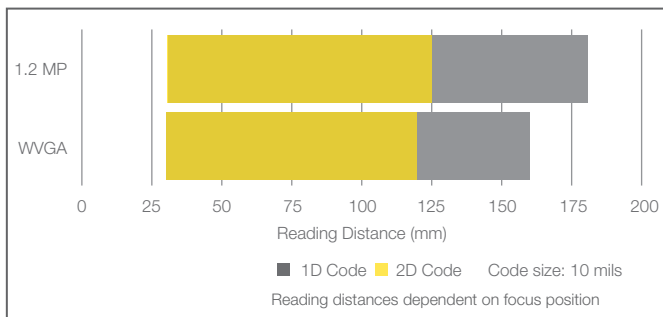
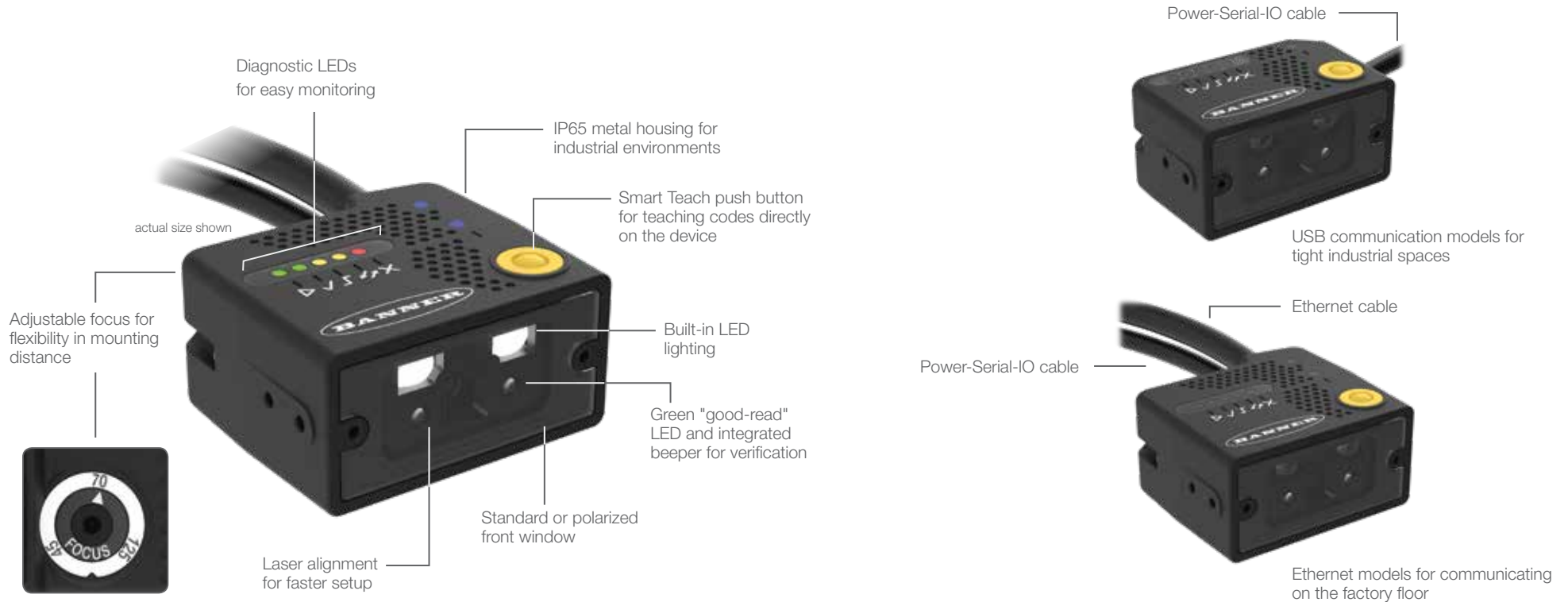
## Imager-Based Barcode Readers

- Reliably reads the most difficult 1D and 2D barcodes
- Compact, all-in-one solution for industrial environments
- Advanced capabilities to solve tough traceability applications



# ABR 3000 Series – Ultracompact Design, Powerful Capabilities

- Barcode reader with compact housing for tight spaces
- Two resolutions and adjustable focus for application flexibility
- Easy setup and operation using a push button or remotely with software interface

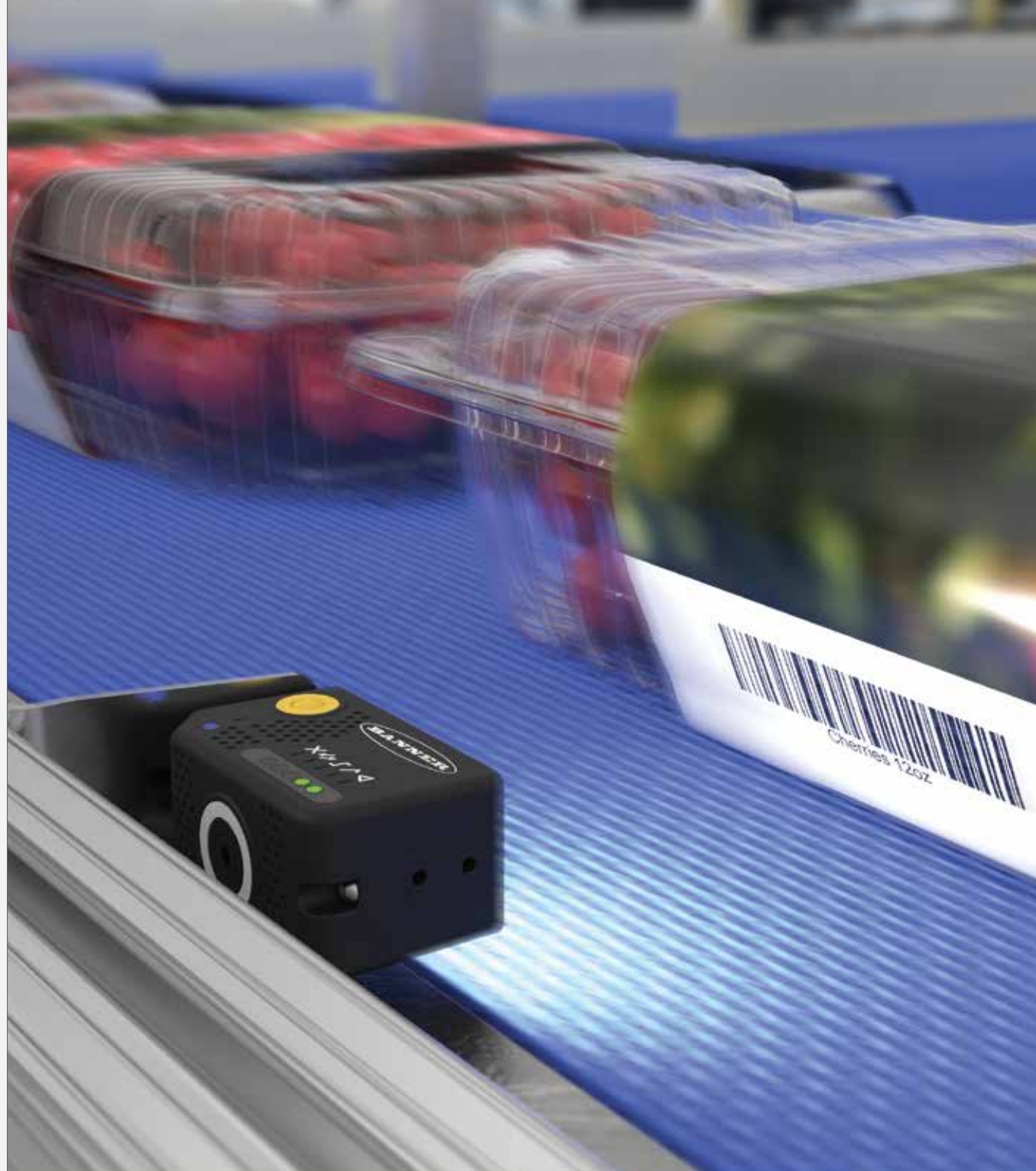


### Challenges

- Inconsistent quality of barcodes printed on gloss packaging material
- Multiple product labels with barcodes printed in different orientations
- Limited space available to deploy barcode reader

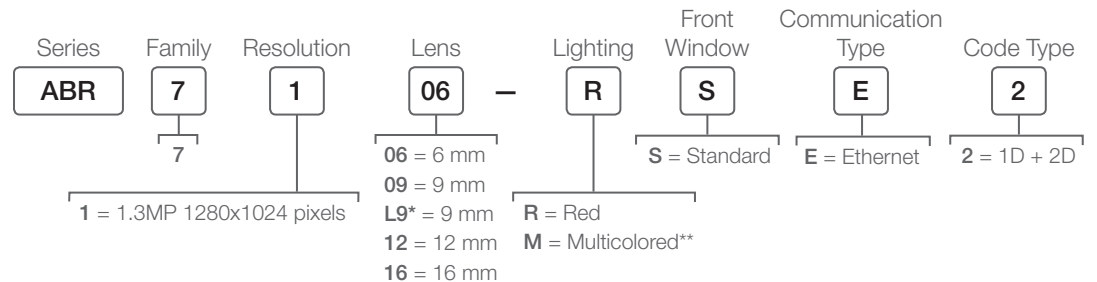
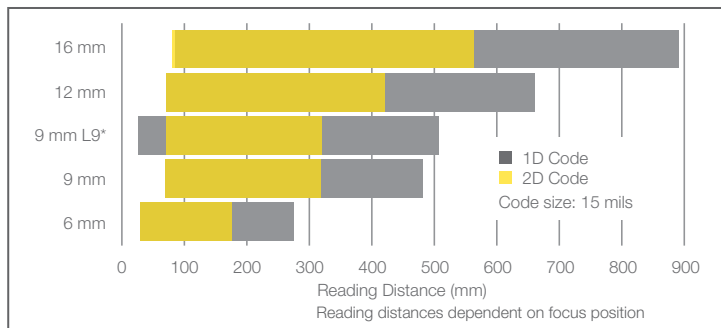
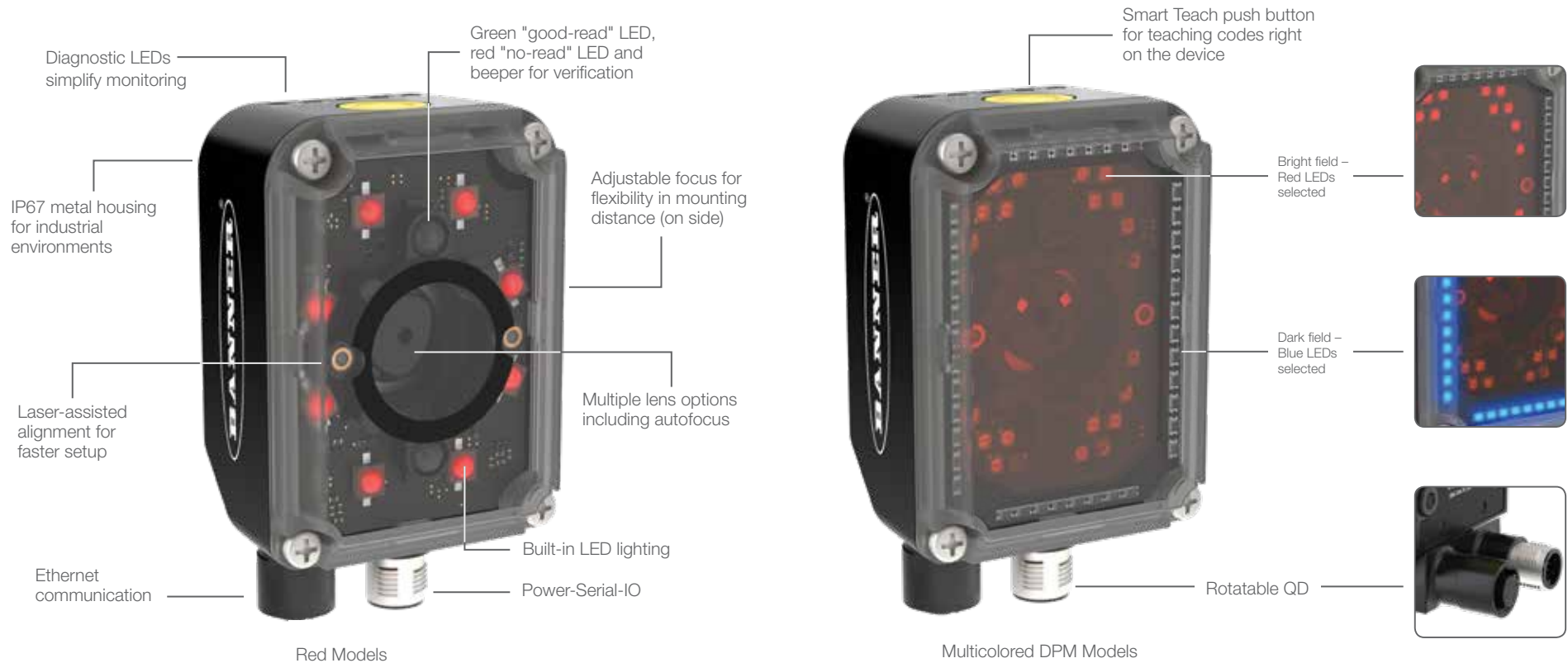
### Solution: ABR 3000

- Robust decoding capability to read damaged, deformed, and overprinted codes
- Ability to read multiple 1D or 2D codes in any orientation
- Complete, all-in-one solution in an ultra-compact housing



# ABR 7000 Series – Power and Versatility to Solve Any Application

- High-resolution imager and fast processing time to solve tough applications on the assembly line
- Autofocus model available for faster setup and product line changes
- Superior integrated lighting for long-range use, low-contrast codes, and direct part marking (DPM) applications



\* Liquid lens autofocus

\*\* Red and blue LEDs for optimized reading of DPM codes, available on 6 mm and 9 mm models only



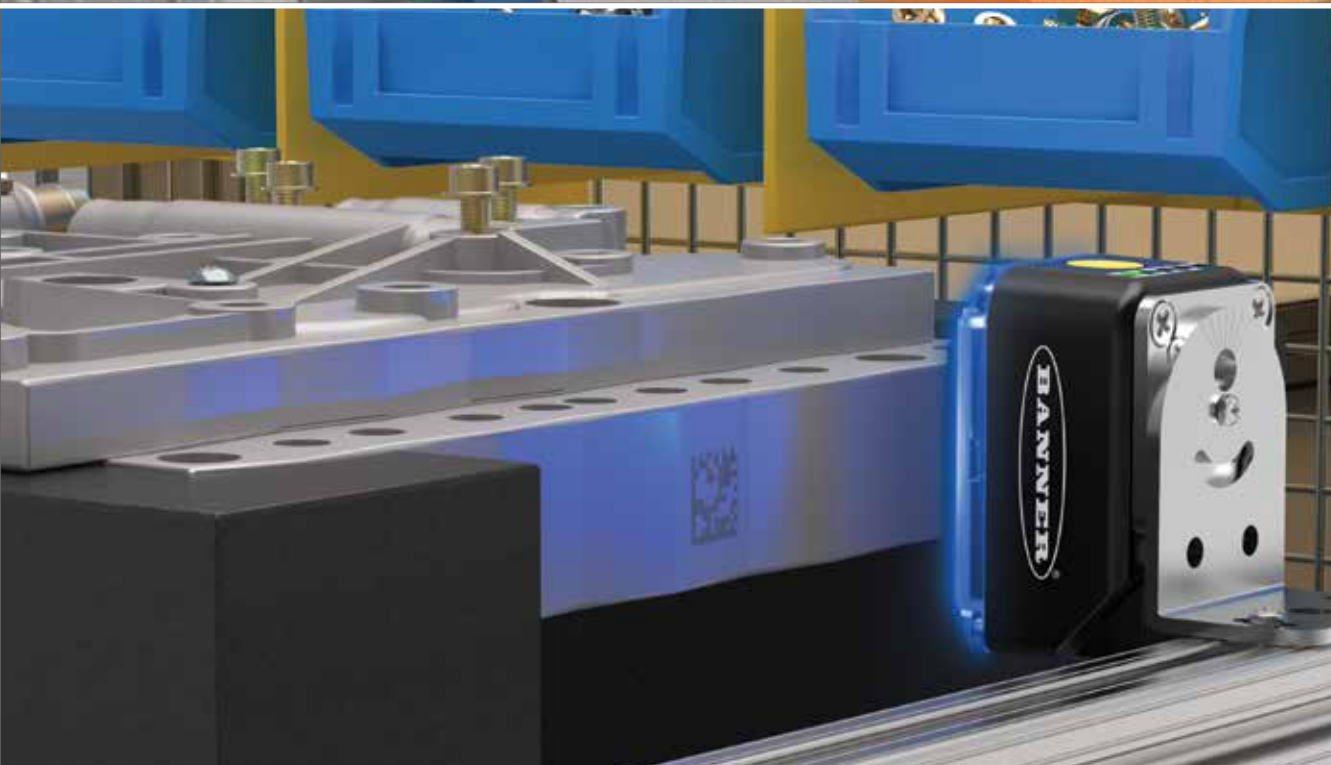


#### Challenges

- Multiple 1D and 2D barcodes printed on each label
- Barcode position and orientation varies with the location of each package on the conveyor
- Box height varies with each line changeover

#### Solution: ABR 7000

- Capable of reading multiple 1D and 2D barcodes in a single inspection
- The wide field of view enables inspections over a large area
- The high-resolution imager and autofocus lens easily adapt to changes in box size when the line changes over



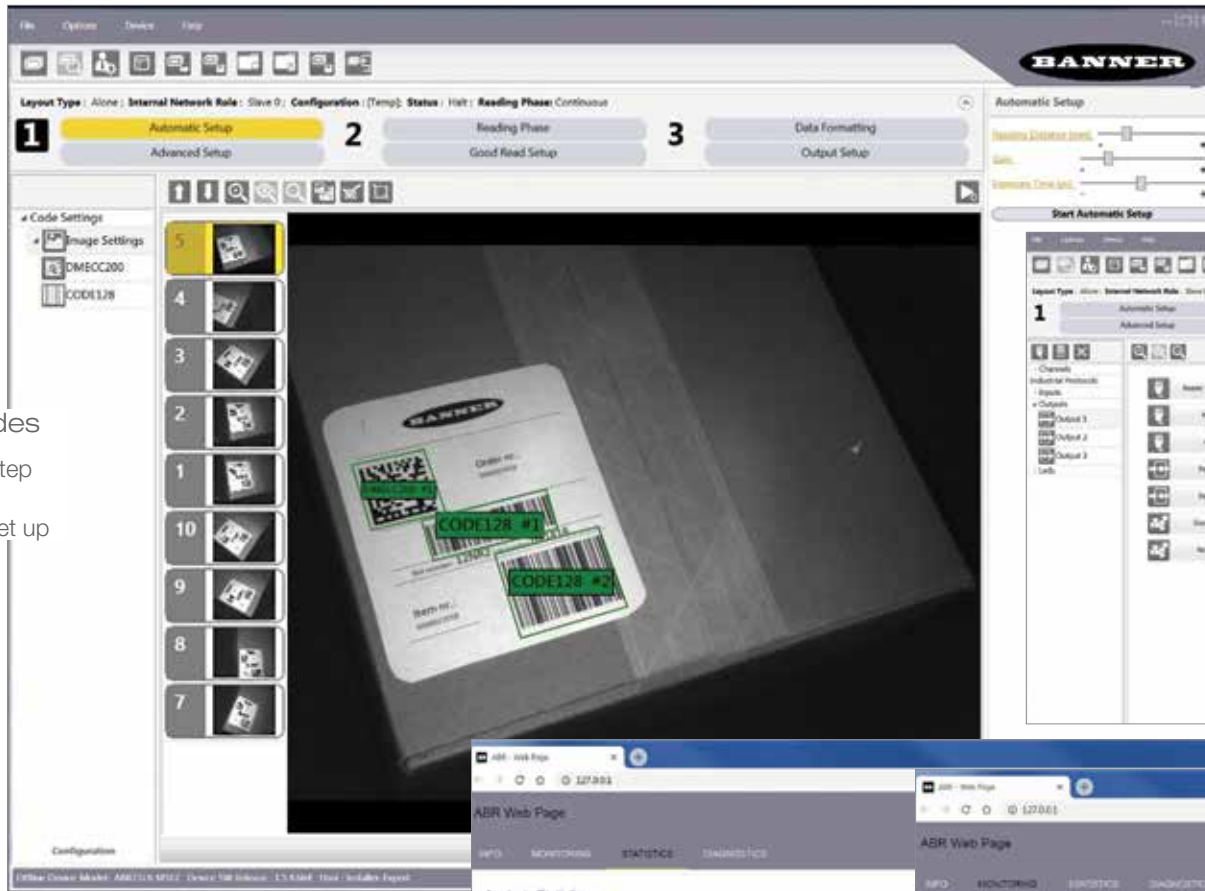
#### Challenges

- 2D codes are etched into automotive components
- Low contrast between the barcodes and the metal background
- Challenging environment with physical hazards common to manufacturing
- Each component must be tracked through the manufacturing process

#### Solution: ABR 7000

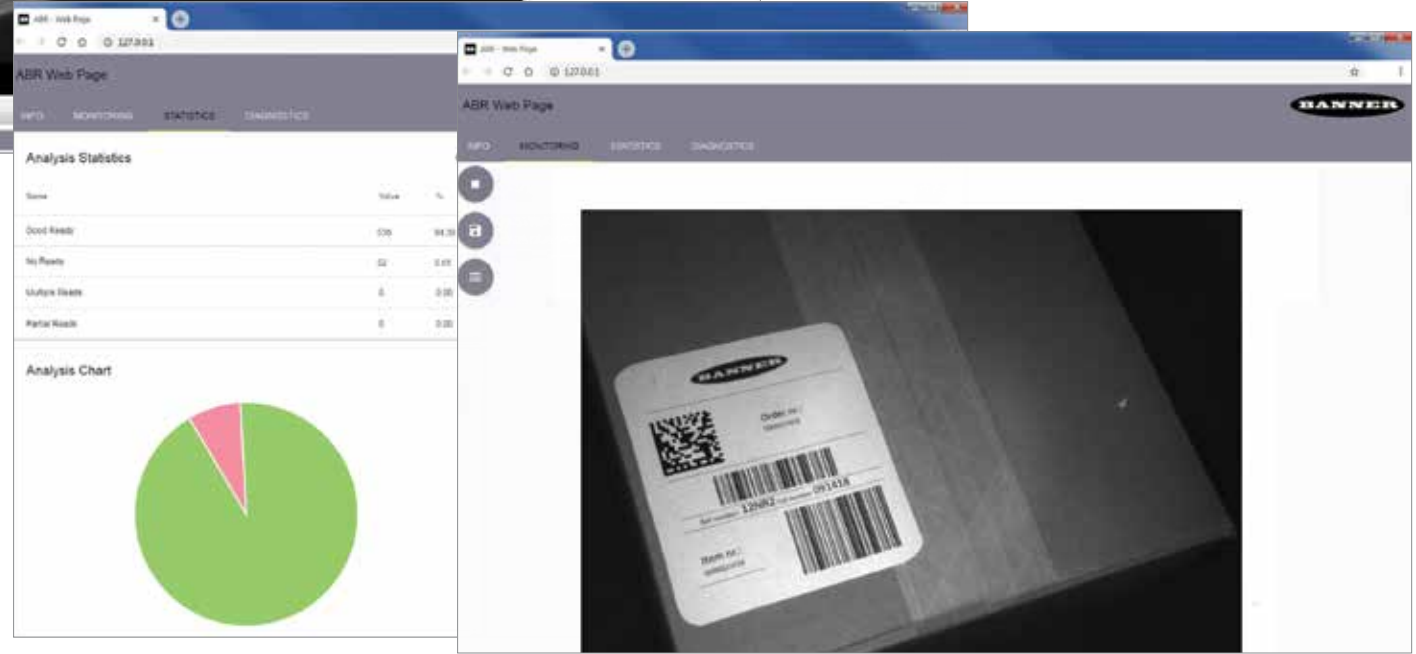
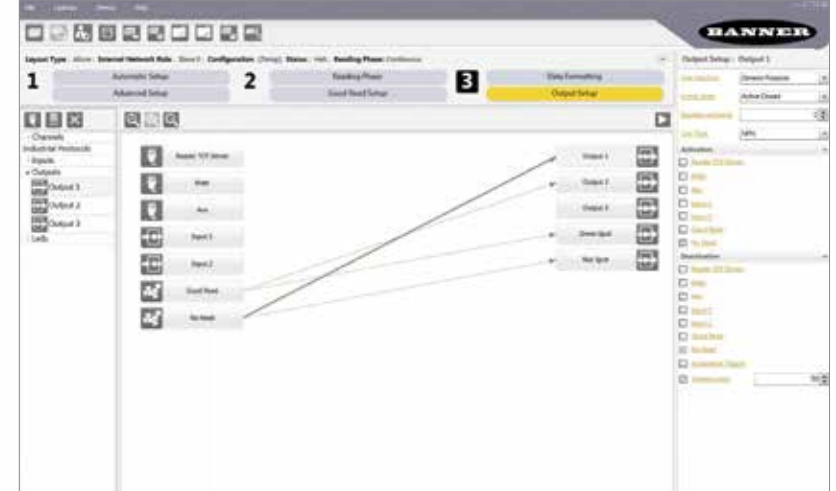
- Superior decoding capabilities and a high-resolution imager enable reliable reading of Direct Part Mark (DPM) and other difficult barcodes
- Powerful multicolored DPM lighting provides optimal illumination on etched, reflective, textured, and other challenging surfaces
- Rugged, IP67-rated housing protects against industrial hazards
- Ethernet connectivity for communicating with factory floor

# Barcode Manager Software – Easy-to-Use, Advanced Capabilities



Learn Codes  
Quick, one-step  
process for  
automated set up

Configure  
Intuitive flowchart programming  
and diverse configuration options



Remotely Monitor  
Web interface for  
monitoring status  
and statistics

# Barcode Manager Features

**Image Filtering:** The following image filters are available: Erode, Dilate, Close, Open, Contrast Stretching, Histogram Equalization, Smoothing, Sharpening, Deblurring, Black Enhancement, White Enhancement

**Code Grading:** ABR readers can be used to evaluate printed or marked symbols according to the ISO/IEC 16022, 18004, AIM DPM, and ISO/IEC 15416 standards

**Multihead Networking:** Connect multiple ABR 7000 models together for complex applications



## Capable of reading the following codes

1-D and Stacked	2D	Postal
<ul style="list-style-type: none"> <li>• PDF417 Standard and Micro</li> <li>• Code 128 (GS1-128)</li> <li>• Code 39 (Standard and Full ASCII)</li> <li>• Code 32</li> <li>• MSI</li> <li>• Standard 2 of 5</li> <li>• Matrix 2 of 5</li> <li>• Interleaved 2 of 5</li> <li>• Codabar</li> <li>• Code 93</li> <li>• Pharmacode</li> <li>• UPC (EAN-8/13-UPC-A/E)</li> <li>• GS1 DataBar Family</li> <li>• Composite Symbologies</li> </ul>	<ul style="list-style-type: none"> <li>• Data Matrix ECC 200 (Standard, GS1 and Direct Marking)</li> <li>• QR Code (Standard and Direct Marking)</li> <li>• Micro QR Code</li> <li>• MAXICODE</li> <li>• Aztec Code</li> </ul>	<ul style="list-style-type: none"> <li>• Australia Post</li> <li>• Royal Mail 4 State Customer</li> <li>• Kix Code</li> <li>• Japan Post</li> <li>• PLANET</li> <li>• POSTNET</li> <li>• POSTNET (+BB)</li> <li>• Intelligent Mail</li> <li>• Swedish Post</li> </ul>

# Accessories

## Cordsets

**MQDC2S-17xx (06, 15, 30)**



17-pin M12 female shielded (for power, serial and IO)

**STP-M12D-4xx (06, 15, 30)**



4-pin M12 D-code to RJ45 Ethernet (Ethernet communication)

**MQDEC-1703SS-DB25**



17-pin M12 female to DB25 (use with TCNM-ACBB1 Connection Box)

**MQDEC-1703SS-USB**



17-pin M12 female to USB (use with USB models)

**MQDEC-17xxSS (06, 15, 30)**



17-pin female to 17-pin male shielded (extension cable)

**CSB-M121701USB02M121702**



Splitter cable. 17-pin M12 female trunk with one 17-pin M12 male branch and one USB branch

## Connection Box



**TCNM-ACBB1**

## Brackets



**SMBABR3RA**  
(included with product)

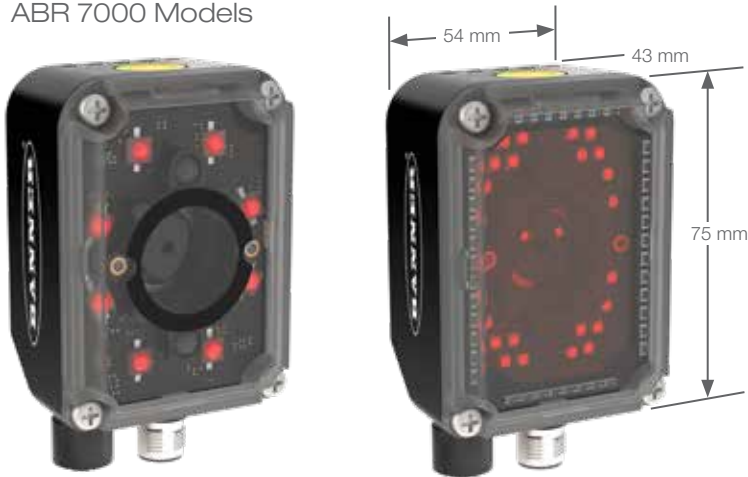


**SMBABR7RA**  
(included with product)


## ABR 3000 Models



## ABR 7000 Models



## Specifications

	3000 Models	7000 Models
<b>Supply Voltage</b>	5 to 30 V dc	10 to 30 V dc
<b>Consumption</b>	0.4 A to 0.1 A maximum	0.7 A to 0.2 A maximum
<b>Communication Protocols</b>	Ethernet/IP, Modbus/TCP, USB, RS-232, RS422, FTP	Ethernet/IP, Modbus/TCP, RS-232, RS422, FTP
<b>Communication Speed</b>	Main RS232 or RS422 full duplex: 2400 bit/s to 115200 bit/s USB Models: USB 2.0 Hi-Speed Ethernet Models: 10/100 Mbit/s	Main RS232 or RS422 full duplex: 2400 bit/s to 115200 bit/s Auxiliary - RS232: 2400 to 115200 bit/s Ethernet: 10/100 Mbit/s
<b>Inputs</b>	Input 1 (External Trigger) and Input 2: Protected against short-circuits	Input 1 (External Trigger) and Input 2: Opto-isolated and polarity insensitive
<b>Outputs</b>	2 NPN or PNP short circuit protected	3 NPN or PNP short circuit protected
<b>Imager</b>	WVGA: 752 × 480 pixels, CMOS 1.2MP: 1280 × 960 pixels, CMOS	1.3 MP: 1280 × 1024 pixels, CMOS
<b>Frame Rate</b>	WVGA: 57 frames/sec 1.2MP: 36 frames/sec	60 frames/sec
<b>Construction</b>	Aluminum	Aluminum
<b>Operating Conditions</b>	0 to +45 °C (+32 to +113 °F) 90% maximum relative humidity	0 to +50 °C (+32 to +122 °F) Liquid Lens: 0 to +45 °C (+32 to +113 °F) 90% maximum relative humidity
<b>Environmental Rating</b>	IEC IP65	IEC IP67
<b>Other</b>	Smart Teach button (configurable via Barcode Manager), beeper	Smart Teach button (configurable via Barcode Manager), beeper
<b>Parameter Storage</b>	Permanent memory (Flash)	Permanent memory (Flash)
<b>Certifications</b>		



PN 208394

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This product includes software developed by the University of California, Berkeley and its contributors

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