

a-s-e-n-t-i-c-s



2D Code Reader BR 600

2D Code Reader BR 600

The code reader of the BR 600 series are ultra-compact, Ethernet-ready reading systems for fast and secure detection of Data Matrix and barcodes. Due to the high processing power, the partial scan feature and optimized decoding algorithms the BR 600 offers superior reading performance. For an optimal process integration several models are available:

- a) with normal or high-resolution image sensor
- b) with integrated optics and illumination or with C mount for interchangeable lenses
- c) in front or side looking design

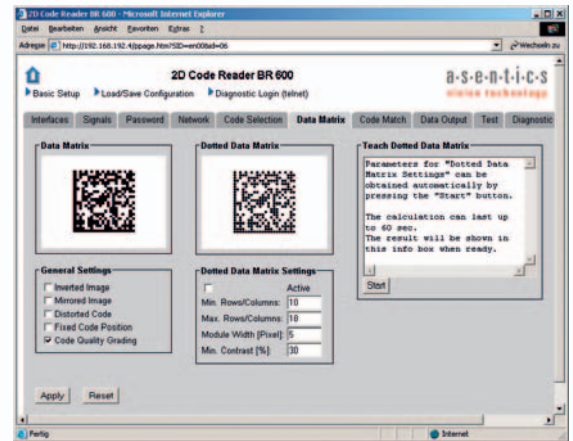
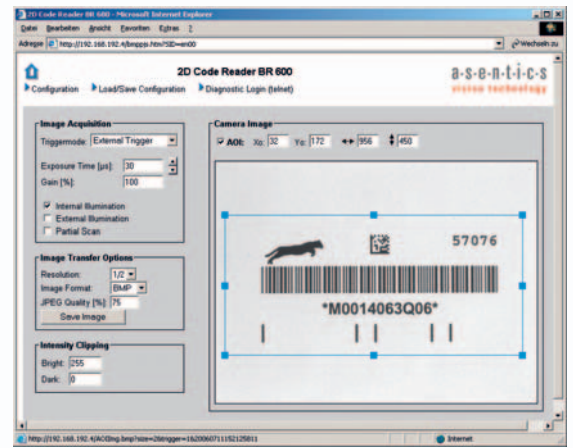
The configuration is made easily and comfortably via the Ethernet interface with help of a standard Web Browser. Beyond this the operator is supported by a multilingual user interface, an integrated diagnostic memory and a fast online video transmission.

Field of application

- Document and mail processing
- Printing and rewinding machines
- Identification in assembly lines
- Identification in packaging and storage techniques
- Detection of important electronic components and printed circuit boards

Features and benefits

- Omnidirectional detection of all standard 1D and 2D Codes
 - Data Matrix up to 60 codes/s
 - 1D codes up to 100 codes/s
- Detection even of fast moving codes (up to 8 m/s)
- Comprehensive supplementary functions
 - Integrated memory for diagnostic images
 - Print quality grading for Data Matrix codes
 - Sequence check and code change control
 - Code matching internally and with multiple readers
- Robust, waterproof housing (IP65)
- Network connectivity given by Ethernet and web interface



Housing versions

C mount front looking version



C mount side looking version



Integrated optics front looking version

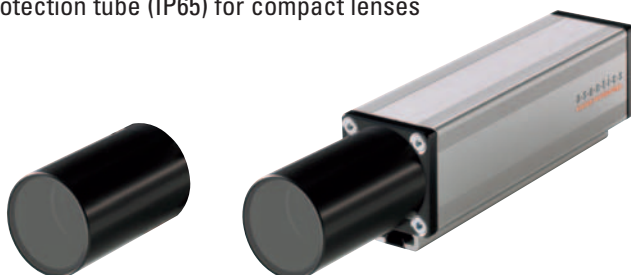


Integrated optics side looking version



Accessoires

Protection tube (IP65) for compact lenses



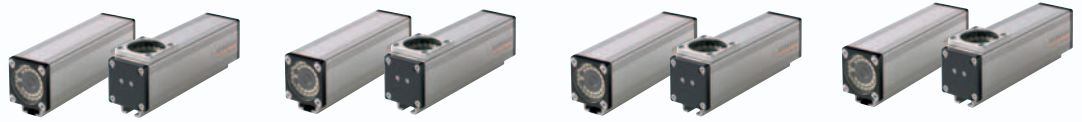
3 LED spot lights = SL 30, AL 110, AL 55



Technical Data



model	BR 611-F	BR 611-A	BR 613-F	BR 613-A
sensor	CCD matrix (659 x 494 pixel)		CCD matrix (1034 x 779 pixel)	
image acquisition time	3 ms (30 lines)...20 ms (full frame)		5 ms (40 lines)...48 ms (full frame)	
lens mount	C mount			
reading distance	selectable via C mount interchangeable lens			
field of view (FOV)	selectable via C mount interchangeable lens			
depth of focus	depends upon lens			
2D codes				
symbolologies	Data Matrix 10x10 to 144x144 and rectangular codes, 2D Pharmacode™, QR Code, PDF417, Databar			
print quality test	Data Matrix: decode, symbol contrast, print growth, axial and grid nonuniformity, unused EC, angle of distortion, scan grade			
reading speed 2D codes	up to 60 codes/s		up to 50 codes/s	
resolution 2D codes	1/100th of height of FOV		1/150th of height of FOV	
reading angle	torsional angle 360° (omnidirectional); tilting and inclination angle up to 30°			
1D codes				
symbolologies	EAN 8/13, UPC-A, UPC-E, Code 128, Code 39, Code 93, Industrial 2/5, Interleaved 2/5, Codabar, Pharmacode, OMR, Postnet, Planet, 4-State-Codes (Australian, Dutch KIX, Royal Mail, Singapore, USPS OneCode)			
reading speed 1D codes	up to 100 codes/s			
resolution 1D codes	1/125th of height of FOV		1/200th of height of FOV	
resolution postal codes	1/100th of height of FOV		1/150 th of height of FOV	
reading modes	continuous or triggered via digital input			
digital inputs	2 switching inputs (24 V ± 30%)			
digital outputs	3 switching outputs (24 V / 1.5 W); 1 high speed trigger output for external illumination			
configuration interfaces	RS 232, Ethernet 100Base-T with TCP/IP			
data interfaces	RS 232 / RS 485 switchable, Ethernet 100Base-T with TCP/IP			
indicators	1 LED "operation", 1 LED "trigger", 2 status LEDs			
illumination	external illumination (accessory)			
power supply	24 V DC ± 20%			
power consumption	6.0 W			
protection class	type F: IP 65 / type A: IP 54			
operating temperature	0° C ... + 45° C			
storage temperature	- 20° C ... + 70° C			
humidity	5 ... 95 %, non-condensing			
dimensions (L x W x H)	type F: 184 mm x 38.5 mm x 47.5 mm / type A: 147 mm x 38.5 mm x 114.5 mm (incl. lens protection tube)			
weight	290 g (without lens and tube)			
connection	1 male plug + 2 female plugs 8-pin, M12x1			
housing material	aluminum, anodized			
attachment	2 sliding blocks with female thread M5 (distance adjustable)			
configuration software	configuration via TCP / IP and standard web browser			



model	BR 621 -x046	BR 621 -x070	BR 623 -x073	BR 623 -x105
reading distance	46 mm	70 mm	73 mm	105 mm
field of view (FOV)	24 mm x 32 mm	35 mm x 46 mm	54 mm x 72 mm	75 mm x 100 mm
depth of focus	± 5 mm	± 7 mm	± 5 mm	± 7 mm
max. transportation speed	8 m/s	3 m/s	3 m/s	1.8 m/s
sensor	CCD matrix (659 x 494 pixel)		CCD matrix (1034x 779 pixel)	
image acquisition time	3 ms (30 lines) ... 20 ms (full frame)		5 ms (40 lines) ... 48 ms (full frame)	

2D codes

symbolologies	Data Matrix 10x10 to 144x144 and rectangular codes, 2D Pharmacode™, QR-Code, PDF417, Databar			
print quality test	Data Matrix: decode, symbol contrast, print growth, axial and grid nonuniformity, unused EC, angle of distortion, scan grade			
reading speed 2D codes	up to 60 codes/s		up to 50 codes/s	
resolution 2D codes	≥ 0.25 mm (10 mil)	≥ 0.35 mm (14 mil)	≥ 0.35 mm (14 mil)	≥ 0.50 mm (20 mil)
reading angle	torsional angle 360° (omnidirectional); tilting and inclination angle up to 30°			

1D codes

symbolologies	EAN 8/13, UPC-A, UPC-E, Code 128, Code 39, Code 93, Industrial 2/5, Interleaved 2/5, Codabar, Pharmacode, OMR, Postnet, Planet, 4-State-Codes (Australian, Dutch KIX, Royal Mail, Singapore, USPS OneCode)			
reading speed 1D codes	up to 100 codes/s			
resolution 1D codes	≥ 0.20 mm (8 mil)	≥ 0.28 mm (11 mil)	≥ 0.25 mm (10 mil)	≥ 0.40 mm (16 mil)
resolution postal codes	≥ 0.25 mm (10 mil)	≥ 0.35 mm (14 mil)	≥ 0.35 mm (14 mil)	≥ 0.50 mm (20 mil)

reading modes	continuous or triggered via digital input
digital inputs	2 switching inputs (24 V ± 30%)
digital outputs	3 switching outputs (24 V / 1.5 W); 1 high-speed trigger output for external illumination
configuration interfaces	RS 232, Ethernet 100Base-T with TCP/IP
data interfaces	RS 232 / RS 485 switchable, Ethernet 100Base-T with TCP/IP
indicators	1 LED "operation", 1 LED "trigger", 2 status LEDs
illumination	integrated LED strobe (white) or external illumination
power supply	24 V DC ± 20%
power consumption	7.0 W
protection class	type F: IP 65 / type A: IP 54
operating temperature	0° C ... + 45° C
storage temperature	- 20° C ... + 70° C
humidity	5 ... 95 %, non-condensing
dimensions (L x W x H)	type F: 142 mm x 38.5 mm x 47.5 mm / type A: 147 mm x 38.5 mm x 52.5 mm
weight	380 g
connection	1 male plug + 2 female plugs 8-pin, M12x1
housing material	aluminum, anodized
attachment	2 sliding blocks with female thread M5 (distance adjustable)
configuration software	configuration via TCP / IP and standard web browser

Order information

BR 623 2D Code Reader with XGA resolution, integrated optics and illumination

Housing version

A side looking version type A
F front looking version

reading distance

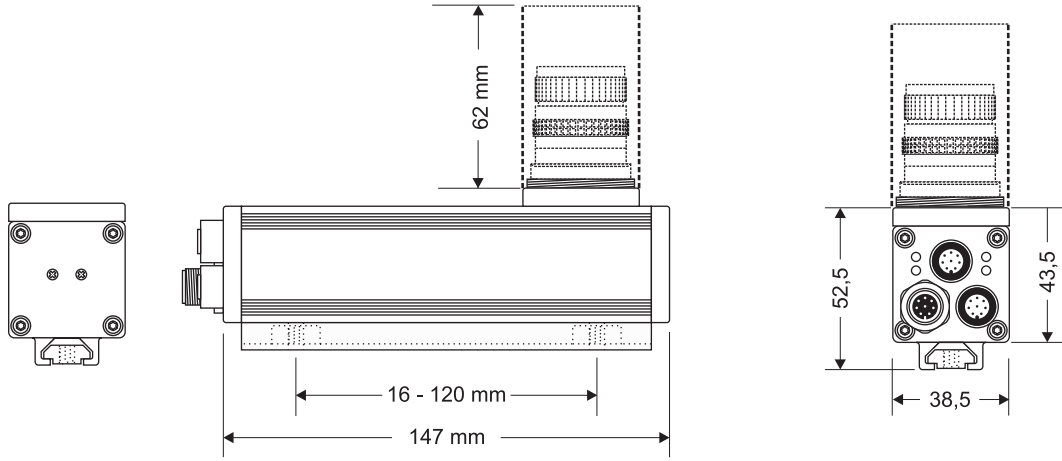
050 reading distance 50 mm, field of view 38 x 50 mm
073 reading distance 73 mm, field of view 54 x 72 mm
105 reading distance 105 mm, field of view 75 x 100 mm

BR 623 - **A** **073**

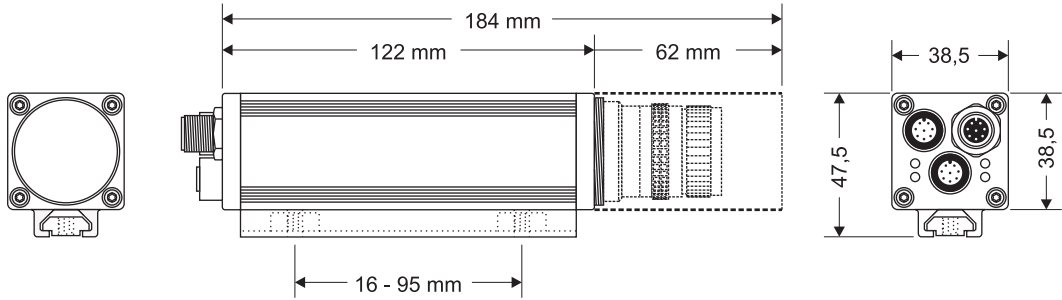
Dimensions

BR 61x

Type A

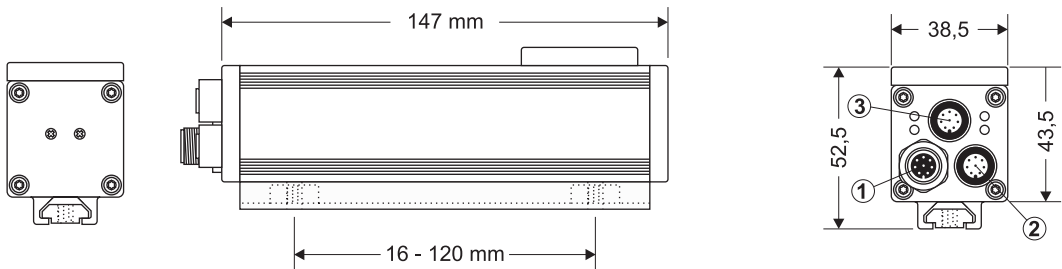


Type F

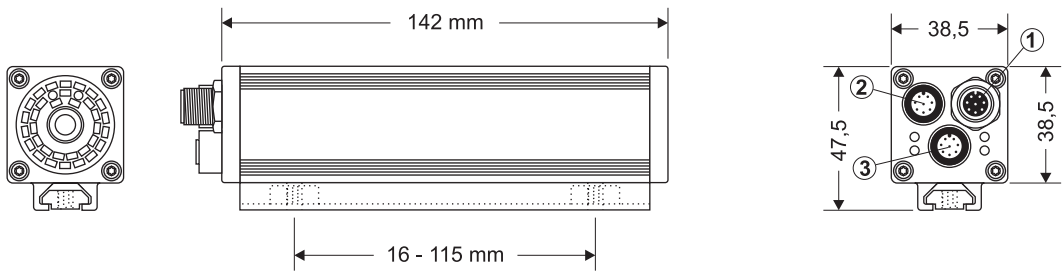


BR 62x

Type A



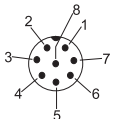
Type F



Contact Assignment

Connection ①

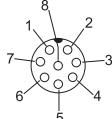
M12 x 1 male plug, 8-pole



- 1 RxD of RS232 (+) for RS485 interface (data)
- 2 (+) 24 V DC output supply voltage
- 3 TxD of RS232 (-) for RS485 interface (data)
- 4 input contact 1 (external trigger)
- 5 output contact 1
- 6 output contact 2
- 7 GND
- 8 input / output contact 3

Connection ②

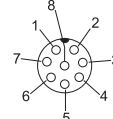
M12 x 1 female plug, 8-pole



- 1 TxD of the RS232 interface (configuration)
- 2 (+) 24 V DC output supply voltage
- 3 RxD of the RS232 interface (configuration)
- 4 output contact 4 (trigger for external lighting)
- 5 reserved
- 6 input contact 2
- 7 GND
- 8 reserved

Connection ③

M12 x 1 female plug, 8-pole



- 1 not assigned
- 2 not assigned
- 3 not assigned
- 4 Tx- of Ethernet interface
- 5 Rx+ of Ethernet interface
- 6 Tx+ of Ethernet interface
- 7 not assigned
- 8 Rx- of Ethernet interface

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vision technology

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