

Data Sheet  
Intelligent Sensors  
DataMatrix Codereader BR510

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## DataMatrix Codereader BR 510

The BR510 is a very flexible and cost-effective codereader for DataMatrix and bar codes. Due to the ultra-compact housing including LED lighting, lens, decoding device and various interfaces, the BR 510 may be installed even in plants with strong restrictions for space.

### Field of application:

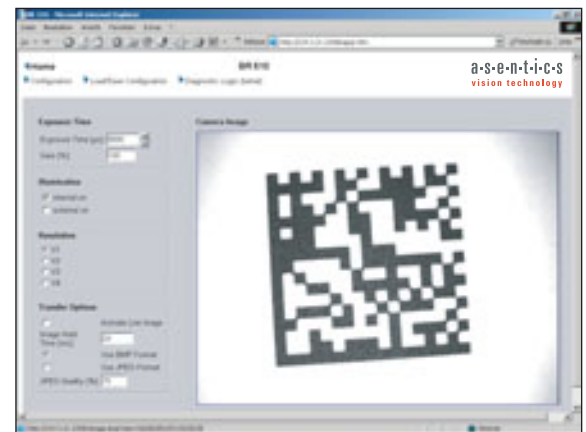
- Identification in packaging and factory automation
- Identification in assembly lines
- Identification of important electronic components and printed circuits
- Wafer production

### Features and benefits:

- high reading speeds (up to 10 codes / sec)
- code detection even of fast moving codes (up to 2,5 m/sec)
- robust, waterproof housing (IP65)
- integrated light source (LED ring flash)
- omnidirectional detection of standard 1D bar codes und 2D matrix codes
- network connectivity given by Ethernet and web interface attractive price

### Additional benefits are:

- easy, factory wide linking of sensors with standard network components
- fast online video transmission of up to 10 frames/sec
- remote maintenance and error diagnosis via Internet
- easy integration in customized user interfaces



## Contact Assignment

	<b>M12 x 1 male, 8-pole</b> 1 R x D of RS232 / (+) for RS485 interface (data) 2 (+) 24 V DC output supply voltage 3 T x D of RS232 / (-) for RS485 interface (data) 4 input contact 4 (external trigger) 5 output contact 1 6 output contact 2 7 GND 8 output contact 3		<b>M12 x 1 female connector, 8-pole</b> 1 T x D of the RS232 interface (configuration) 2 (+) 24 V DC output supply voltage 3 R x D of the RS232 interface (configuration) 4 output contact 4 (trigger for external lighting) 5 reserved 6 input contact 2 7 GND 8 reserved		<b>M12 x 1 female connector, 8-pole</b> 1 not assigned 2 not assigned 3 not assigned 4 T x D - of Ethernet interface 5 R x D + of Ethernet interface 6 T x D + of Ethernet interface 7 not assigned 8 R x D - of Ethernet interface
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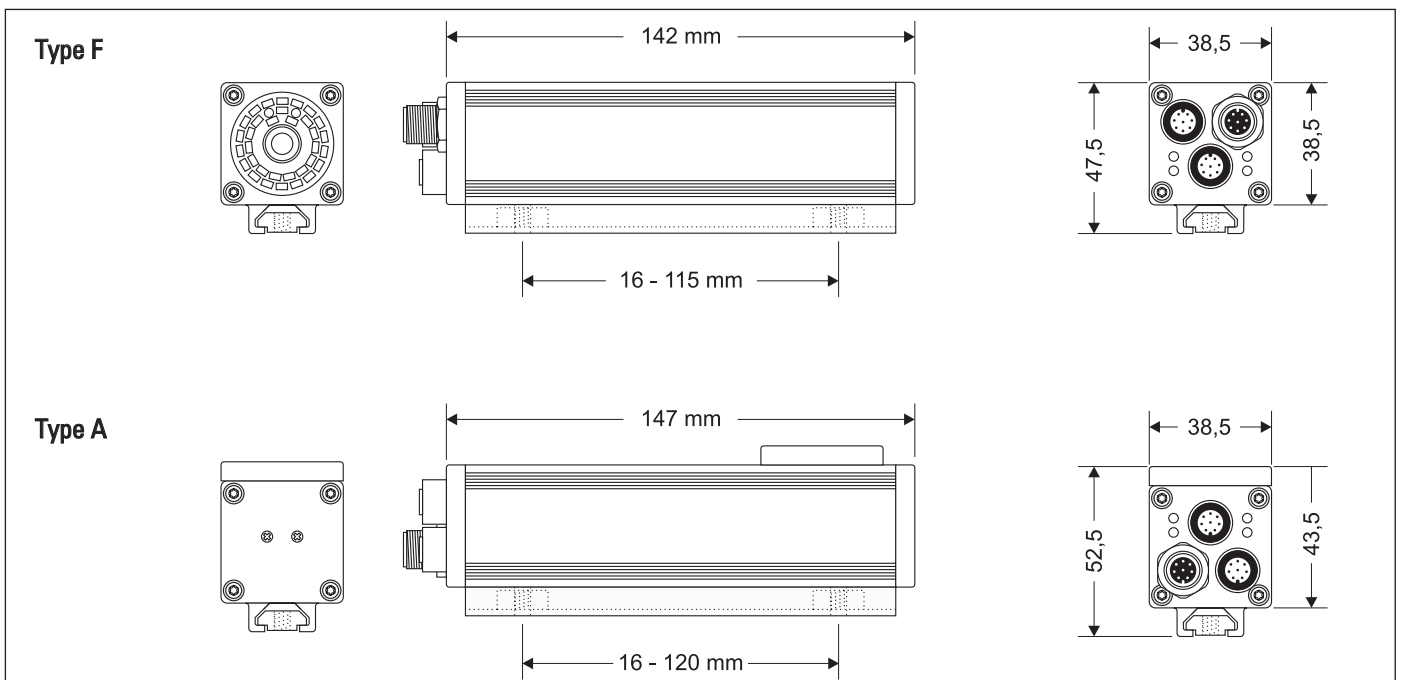
## Accessories

Designation	Short description
	<b>2D Codereader</b>
BR 510-F30E-A	2D-Codereader, 10 code/s, field of view 30 x 40 mm, Ethernet
BR 510-F25E-A	2D-Codereader, 10 code/s, field of view 25 x 33 mm, Ethernet
BR 510-F18A-A	2D-Codereader, 10 code/s, field of view 18 x 25 mm, Ethernet
	<b>Connecting cables</b>
AK8-763-FC-5m	Connecting cable with 8-pin female plug, type M12 straight, 5 m
AK8-763-FA-5m	Connecting cable with 8-pin female plug, type M12 angled, 5 m
AK8-763-MC-5m	Connecting cable with 8-pin female plug, type M12 straight, 5 m
AK8-763-MA-5m	Connecting cable with 8-pin female plug, type M12 angled, 5 m
AK8-840-MC-5m	Ethernet connecting cable with 8-pin female plug, type M12 x 1 straight and male plug RJ45, 5 m
<b>Scope of delivery</b>	
DataMatrix code reader BR 510 incl. configuration software and operating instructions, without cables.	

## Technical Data

model	BR 510-x30x-x	BR 510-x25x-x	BR 510-x18x-x
reading distance	100 mm	85 mm	60 mm
field of view	30 x 40 mm	25 x 33 mm	18 x 25 mm
depth of focus	± 10 mm	± 7 mm	± 5 mm
resolution	0.30 mm (12 mil)	0.25 mm (10 mil)	0.18 mm (7 mil)
sensor	CCD-Matrix (659 x 494 Pixel)		
reading speed	up to 10 codes/s		
maximum transportation speed	2.5 m/s		
reading angle	torsional angle 360° (omnidirectional) tilting and inclination angle to 30°		
2-D codes	DataMatrix 10 x 10 to 144 x 144 and rectangular codes: PDF417 upon request		
bar codes	EAN 8/13, UPC-A, UPC-E, Code 128, Code 39, Code 93, Industrial 2/5, Interleaved 2/5, Codabar, (all upon request)		
reading modes	continuous or triggered through digital input		
digital inputs	2 switching inputs (24 V ± 30%)		
digital outputs	2 switching outputs (24 V / 1.5 W), 1 high-speed trigger output for external lighting		
configuration interfaces	RS232, Ethernet 10Base-T with TCP/IP		
data interfaces	RS 232 / RS 485 switchable, Ethernet 10Base-T with TCP/IP		
display	1 LED for "operation"; 1 LED "trigger"; 2 programmable status LED's		
lighting	built-in LED flash (white) or external lighting		
power supply	24 V DC ± 30%		
power input	4 W		
ingress protection class	IP 65		
operating temperature	0° ... + 45 °C		
storage temperature	- 20° ... + 70 °C		
humidity	5%...95%, non-condensing		
EMC emission	according to EN 50081-1		
EMC immunity	according to EN 50081-2		
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 + 2 female plugs M12 x 1 8-pole		
housing material	aluminium, silver anodised		
fastening	2 sliding blocks with female threads M5 (adjustable distance)		
configuration software	Suitable for Windows 98, NT 4.0, 2000 and XP or configuration via TCP/IP and standard web browser		

## Dimensions



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Subject to modification

BR 510/GB/250/AVT/11.02