



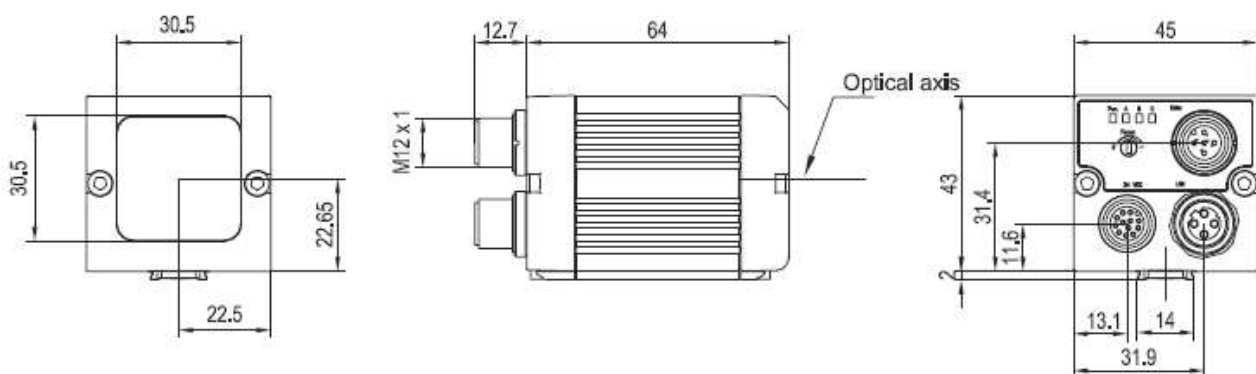
***EyeSens  
Vision Sensors***



## Technical Data

<b>Memory:</b>	
<b>DDR RAM</b>	128 MB
<b>FLASH</b>	128 MB
<b>Interfaces:</b>	Ethernet (LAN)
	RS422, RS232 (not EC900, EC910, EC1000, EC1010)
	EtherNet / IP
	PROFINET
<b>Digital I/Os</b>	2 In- / 4 Outputs, 4 wählbare In- / Outputs
<b>Protection Class</b>	IP 65 bis IP 67
<b>Current consumption (without light &amp; IO)</b>	≤ 120 mA
<b>Current consumption (ohne IO)</b>	≤ 200 mA
<b>Power supply</b>	18 ... 26.4 VDC
<b>Ambient temperature:</b>	Operating: 0 ... +50 °C (at 80% air humidity)
	Storage: - 20 ... + 60 °C (at 80% air humidity)
<b>Weight</b>	approx. 160 g
<b>Dimensions without lens (W x H x L)</b>	65 x 45 x 45 mm (without connector)

## Dimensional Drawing




























## EyeSens Barcode Reader (BCR)



Model	Resolution	Sensor	Focal length	Integrated illumination	Processor
ES BCR_0	736 x 480	1/3" CMOS	6, 12, 25 mm	LED: white, red or infrared	1 GHz
ES BCR_1	736 x 480	1/3" CMOS	C-Mount	none	1 GHz
ES BCR HR_0	1024 x 768	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES BCR HR_1	1024 x 768	1/1,8" CMOS	C-Mount	none	1 GHz
ES BCR XHR_0	1280 x 1024	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES BCR XHR_1	1280 x 1024	1/1,8" CMOS	C-Mount	none	1 GHz

## Befehlssatz




























	Image Acquisition		Object count BLOB		Script Interpreter		Overlay Arrow
	Asynchronous Image Acquisition		Check Input		Window		Overlay Circle
	Camera Control		Set Output		Rectangular edge detection		Overlay Cross
	Calibration		Display Register Values		Barcode Reader Standard		Overlay Line
	Stop watch		Global String				Overlay Square
	Program Flow Control		Image Transfer				
	Subroutine call		Image Information				
	Value evaluation		Point List				

## EyeSens OCR Reader (OCR)



Model	Resolution	Sensor	Focal length	Integrated illumination	Processor
ES OCR_0	736 x 480	1/3" CMOS	6, 12, 25 mm	LED: white, red or infrared	1 GHz
ES OCR_1	736 x 480	1/3" CMOS	C-Mount	none	1 GHz
ES OCR HR_0	1024 x 768	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES OCR HR_1	1024 x 768	1/1,8" CMOS	C-Mount	none	1 GHz
ES OCR XHR_0	1280 x 1024	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES OCR XHR_1	1280 x 1024	1/1,8" CMOS	C-Mount	none	1 GHz

## Befehlssatz


























	Image Acquisition		Script Interpreter		Window		Overlay Arrow
	Asynchronous Image Acquisition		Check Input		Rectangular edge detection		Overlay Circle
	Camera Control		Set Output		OCR Control		Overlay Cross
	Calibration		Display Register Values		OCR Character Separation		Overlay Line
	Stop watch		Global String		OCR Character Separation edge		Overlay Square
	Program Flow Control		Image Transfer		OCR Recognition		
	Subroutine call		Image Information				
	Value evaluation		Point List				

## EyeSens Match



Model	Resolution	Sensor	Focal length	Integrated illumination	Processor
ES Match_0	736 x 480	1/3" CMOS	6, 12, 25 mm	LED: white, red or infrared	1 GHz
ES Match_1	736 x 480	1/3" CMOS	C-Mount	none	1 GHz
ES Match HR_0	1024 x 768	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES Match HR_1	1024 x 768	1/1,8" CMOS	C-Mount	none	1 GHz
ES Match XHR_0	1280 x 1024	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES Match XHR_1	1280 x 1024	1/1,8" CMOS	C-Mount	none	1 GHz

## Befehlssatz

	Image Acquisition		Object count BLOB		Script Interpreter		Overlay Arrow
	Asynchronous Image Acquisition		Check Input		Window		Overlay Circle
	Camera Control		Set Output		Rectangular edge detection		Overlay Cross
	Calibration		Display Register Values		KeyMatch		Overlay Line
	Stop watch		Global String				Overlay Square
	Program Flow Control		Image Transfer				
	Subroutine call		Image Information				
	Value evaluation		Point List				

## EyeSens Measure (Meas)



Model	Resolution	Sensor	Focal length	Integrated illumination	Processor
ES Meas_0	736 x 480	1/3" CMOS	6, 12, 25 mm	LED: white, red or infrared	1 GHz
ES Meas_1	736 x 480	1/3" CMOS	C-Mount	none	1 GHz
ES Meas HR_0	1024 x 768	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES Meas HR_1	1024 x 768	1/1,8" CMOS	C-Mount	none	1 GHz
ES Meas XHR_0	1280 x 1024	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES Meas XHR_1	1280 x 1024	1/1,8" CMOS	C-Mount	none	1 GHz

## Befehlssatz
































	Image Acquisition		Object count BLOB		Script Interpreter		Distance (Point-Line)		Contour Tracking
	Asynch. Image Acquisition		Check Input		Window		Distance (Line-Line)		Circle edge detection
	Camera Control		Set Output		Rectangular edge detection		Caliper (hor./vert.)		Edge counter on a line
	Calibration		Display Register Values		Overlay Arrow		Caliper any direction		Edge counter on a circle
	Stop watch		Global String		Overlay Circle		Best fit Circle		
	Program Flow Control		Image Transfer		Overlay Cross		Point Operation set		
	Subroutine call		Image Information		Overlay Line		Best fit straight line		
	Value evaluation		Point List		Overlay Square		Calculate angle		

## EyeSens ColorInspect (CI)



Model	Resolution	Sensor	Focal length	Integrated illumination	Processor
ES CI_0	736 x 480	1/3" CMOS	6, 12, 25 mm	LED: white, red or infrared	1 GHz
ES CI_1	736 x 480	1/3" CMOS	C-Mount	none	1 GHz
ES CI XHR_0	1280 x 1024	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES CI XHR_1	1280 x 1024	1/1,8" CMOS	C-Mount	none	1 GHz

## Befehlssatz



























	Image Acquisition		Object count BLOB		Script Interpreter		Overlay Arrow
	Asynchronous Image Acquisition		Check Input		Window		Overlay Circle
	Camera Control		Set Output		Rectangular edge detection		Overlay Cross
	Calibration		Display Register Values		Select Color Channel		Overlay Line
	Stop watch		Global String		Color Control		Overlay Square
	Program Flow Control		Image Transfer		Color Filter		JSON / XML (Read)
	Subroutine call		Image Information		LED Color Inspection		JSON / XML (Write)
	Value evaluation		Point List		Point Operation Set	Filter: Gray to RGB RGB to Gray	

## EyeSens ObjectCounter (ObC)



Model	Resolution	Sensor	Focal length	Integrated illumination	Processor
ES ObC_0	736 x 480	1/3" CMOS	6, 12, 25 mm	LED: white, red or infrared	1 GHz
ES ObC_1	736 x 480	1/3" CMOS	C-Mount	none	1 GHz
ES ObC HR_0	1024 x 768	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES ObC HR_1	1024 x 768	1/1,8" CMOS	C-Mount	none	1 GHz
ES ObC XHR_0	1280 x 1024	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES ObC XHR_1	1280 x 1024	1/1,8" CMOS	C-Mount	none	1 GHz

## Befehlssatz

	Image Acquisition		Object count BLOB		Script Interpreter		Overlay Arrow
	Asynchronous Image Acquisition		Check Input		Window		Overlay Circle
	Camera Control		Set Output		Rectangular edge detection		Overlay Cross
	Calibration		Display Register Values		Scale Gray Values		Overlay Line
	Stop watch		Global String		Point Operation Set		Overlay Square
	Program Flow Control		Image Transfer				
	Subroutine call		Image Information				
	Value evaluation		Point List				



## EyeSens DMC Reader (DMC)



Model	Resolution	Sensor	Focal length	Integrated illumination	Processor
ES DMC_0	736 x 480	1/3" CMOS	6, 12, 25 mm	LED: white, red or infrared	1 GHz
ES DMC_1	736 x 480	1/3" CMOS	C-Mount	none	1 GHz
ES DMC HR_0	1024 x 768	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES DMC HR_1	1024 x 768	1/1,8" CMOS	C-Mount	none	1 GHz
ES DMC XHR_0	1280 x 1024	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES DMC XHR_1	1280 x 1024	1/1,8" CMOS	C-Mount	none	1 GHz

## Befehlssatz

	Image Acquisition		Object count BLOB		Script Interpreter		Overlay Arrow
	Asynchronous Image Acquisition		Check Input		Window		Overlay Circle
	Camera Control		Set Output		Rectangular edge detection		Overlay Cross
	Calibration		Display Register Values		Erosion		Overlay Line
	Stop watch		Global String		Dilation		Overlay Square
	Program Flow Control		Image Transfer		DMC Reader any rotation		
	Subroutine call		Image Information				
	Value evaluation		Point List				

## EyeSens Advanced DMC, Barcode, OCR (Adv.DBO)



Model	Resolution	Sensor	Focal length	Integrated illumination	CPU
ES Adv.DBO_0	736 x 480	1/3" CMOS	6, 12, 25 mm	LED: white, red or infrared	1 GHz
ES Adv.DBO_1	736 x 480	1/3" CMOS	C-Mount	none	1 GHz
ES Adv.DBO HR_0	1024 x 768	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES Adv.DBO HR_1	1024 x 768	1/1,8" CMOS	C-Mount	none	1 GHz
ES Adv.DBO XHR_0	1280 x 1024	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES Adv.DBO XHR_1	1280 x 1024	1/1,8" CMOS	C-Mount	none	1 GHz

### Befehlssatz



























	Image Acquisition		Object count BLOB		Script Interpreter		Overlay Arrow
	Asynchronous Image Acquisition		Check Input		Window		Overlay Circle
	Camera Control		Set Output		Rectangular edge detection		Overlay Cross
	Calibration		Display Register Values		EVO Add-On Barcode Reader		Overlay Line
	Stop watch		Global String		EVO Add-On any DMC Reader		Overlay Square
	Program Flow Control		Image Transfer		EVO Add-On High-end OCR Reader		
	Subroutine call		Image Information				
	Value evaluation		Point List				

## EyeSens Advanced DMC, Barcode (Adv.DB)



Model	Resolution	Sensor	Focal length	Integrated illumination	Prozessor
ES Adv.DB_0	736 x 480	1/3" CMOS	6, 12, 25 mm	LED: white, red or infrared	1 GHz
ES Adv.DB_1	736 x 480	1/3" CMOS	C-Mount	none	1 GHz
ES Adv.DB HR_0	1024 x 768	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES Adv.DB HR_1	1024 x 768	1/1,8" CMOS	C-Mount	none	1 GHz
ES Adv.DB XHR_0	1280 x 1024	1/1,8" CMOS	12 mm	LED: white, red or infrared	1 GHz
ES Adv.DB XHR_1	1280 x 1024	1/1,8" CMOS	C-Mount	none	1 GHz

### Befehlssatz

	Image Acquisition		Object count BLOB		Script Interpreter		Overlay Arrow
	Asynchronous Image Acquisition		Check Input		Window		Overlay Circle
	Camera Control		Set Output		Rectangular edge detection		Overlay Cross
	Calibration		Display Register Values		EVO Add-On Barcode Reader		Overlay Line
	Stop watch		Global String		EVO Add-On any DMC Reader		Overlay Square
	Program Flow Control		Image Transfer				
	Subroutine call		Image Information				
	Value evaluation		Point List				

