

Intelligent Image sensor

FA 30 WCC PA ...



The intelligent Image sensor is a flexible, stand alone solution for a wide variety of applications in the field of automation technology:

- ◆ Presence detection (Labels, marks,)
- ◆ Final Assembly Inspection
- ◆ Part orientation (vibrating bowl conveyers,)
- ◆ Printing control (packaging, assembly.)
- ◆ Label control (bottling, packaging,)
- ◆ Empty bin control (conveyer pan, assembly,)
- ◆ Edge detection (stickers, assembly,)
- ◆ Position control (X-, Y- position, mounting position, stickers, marks,)
- ◆ Plus much more

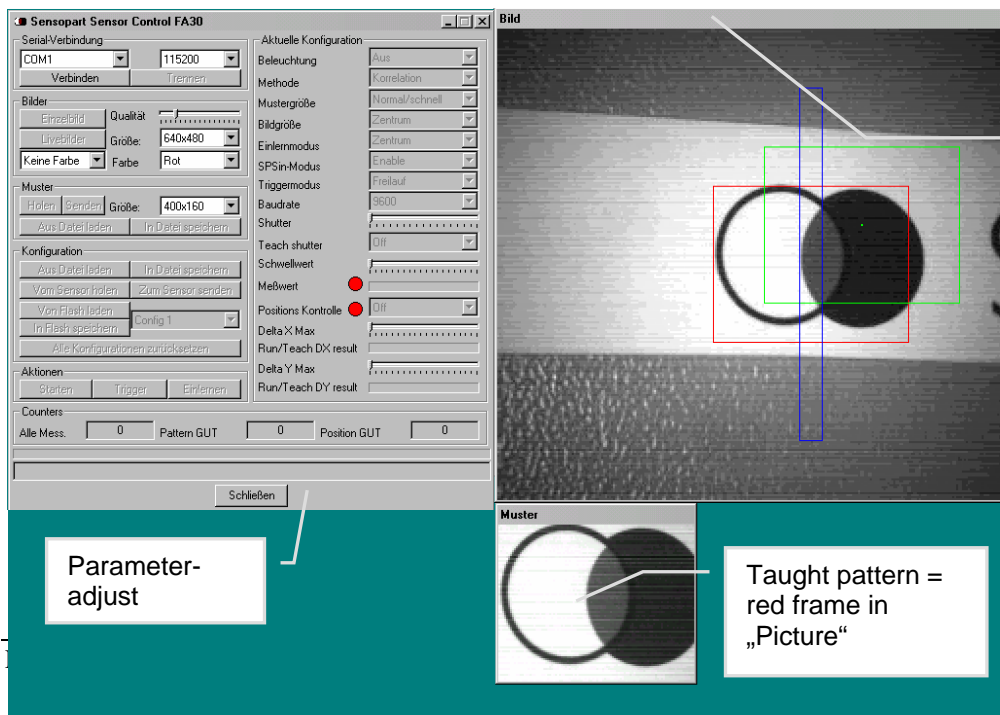
Functions

- ◆ Pattern matching
- ◆ Position control in X a./o. Y
- ◆ Area test Contrast
- ◆ Area test Grey level
- ◆ Manual or auto. Shutter
- ◆ Different geometry's of measurement field and resolutions
- ◆ Up to 5 test objects per sensor, to runtime

Features

- ◆ Stand alone operation (Self contained)
- ◆ Integrated illumination (external optional)
- ◆ Teach In and adjustment at the sensor or via PC (software included)
- ◆ Switching output for good- / bad signal
- ◆ Different measurement ranges and measurement field sizes
- ◆ Large tolerance range for position deviation

Screenshot PC software



View- and measurement field with position frame for ease of programming

Parameter-adjust

Taught pattern = red frame in „Picture“

Technical data

Electrical data	
Supply voltage	24 VDC +/- 10% (max. 28V)
Residual ripple	< 5 V peak to peak
Maximum cable length	25 m
Power consumption (without I/O's)	Max. 50 ma
Inputs IN1 / IN2	High 10 ... 24V (+10%), Low 0 ... 3V
Input resistance	> 20 ohm
Trigger input	rising edge, 10V ... Ub
Output OUT1 ... 4	PnP (pull up MOSFET)
Output current (each output)	Max. 400mA (>> max. 9,6 W)
Maximum output current	1,5 A in case of short cut
Short circuit proof (all outputs)	yes
Protection against interchangement	yes
Serial interface	RS232 (max. 115.200 Baud, operate only with SPI –programming cable!
Typical cycletime	min.: ca. 100ms typ.: ca. 170-220ms (depending on pattern)

Optical data	
Number of pixels, technology	FA30 WCC 640 (H) x 480 (V), CCD
Built in illumination	8 LED's white
Objective	12 mm
Meas. range	in mm FA30WCC... 45 80 120 200 500 .
Field of view	X * Y in mm 13*10 23*17 35*26 59*44 149*112
Meas. field normal	X * Y in mm 4*3 7*5 12*8 20*15 49*37
Meas. field wide	X * Y in mm 8*3 14*5 24*8 40*15 98*37
Depth of focus	approx. +/- 5 % of measurement distance

Mechanical data	
Length	100 mm
Diameter	30 mm
Weight	approx. 100 g
Vibration	< 3g (11 - 200Hz)
Shock	< 50g
Ambient temperature	0°C 45°C (80% humidity, not condensing)
Storage temperature	-20°C ... 60°C (80% humidity, not condensing)
Enclosure rating	IP 54
Connection	Connector, 12 pin, M16
Housing	Aluminum

Connection, 8-pin cable

