Data Sheet
Intelligent Line Sensor
IZS 1024

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vision technology

Technical alterations without notice

IZS 1024/GB/250/AVT/02.034

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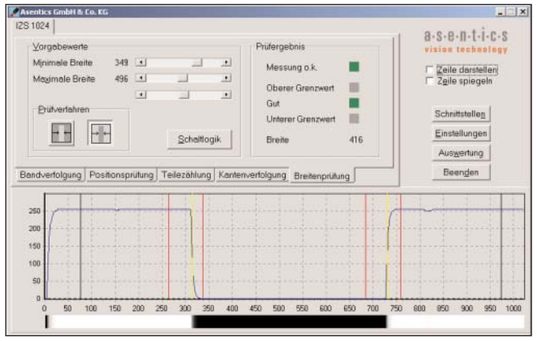
Line Sensor IZS 1024

IZS 1024 is an intelligent line sensor for determining geometrical sizes like width, length, edge position and position. According to the selected program, the image data are evaluated in the sensor already and the result is output at the interfaces. This way, many monitoring and sorting tasks can very easily be realised.



Fields of application:

- Line goods control and positioning, sag control
- Geometry control and position control of building components
- Control of completeness
- Presence monitoring
- Object counting

Features and Benefits:

- Program for measuring widths, edge and middle positions and for counting
- Numerous connecting possibilities
  - Power output 4...20 mA
  - 3 SPS-switching outputs
  - RS232-interface
  - CAN-Bus (option)
- Sensor configuration via PC software
- High measuring rate (2 kHz)
- Robust splash-proof housing (protection class IP 65)
- Suitable for measuring incident and counter lights
- Attractive price

The attached configuration program is used for a PC-supported configuration of the measuring program and for an adjustment of the monitoring limiting values.

Selectable programs:

- Width measuring
- Line tracing
- Position measuring of the centre of object
- Edge measuring
- Object counting

Technical Data

model	IZS 1024
sensor type	CCD-line sensor with 1024 pixel (14µm pixel width without pitch)
measuring range	adjustable via objective (accessories)
resolution	0.1 % of the measuring range
uncertainty of measurement	± 0.5 % of the measuring range
measuring rate	max. 2000 Hz
objective connection	C-mount(M27x0.5mm)
lighting time	500µs ... 25 ms (adjustable)
display	4 LEDs (status of the switching outputs / sensor configuration)
inputs	1 opto-decoupled input (24 VDC ±30%)
outputs	3 opto-decoupled switching outputs (24 VDC ±30% /1.5 W) (e. x. too small, good, too big) 1 trigger output for ext. lighting (24 VDC ±30% /1.5 W, not opto-decoupled) 1 analog output 4-20 mA (max. 500 Ω)
interfaces	RS232, CAN-Bus on request
supply voltage	24VDC±30%/4,8W
device protection class	IP 65 (with screwed on objective protection tube)
operating temperature	0° ... + 50° C
storage temperature	- 20° ... + 70° C
humidity	5 % ... 95 %, non-condensing
EMV- interference emission	acc. To EN 50081-1
EMV-immunity	acc. To EN 50082-2
dimensions (Lx W x H)	184 x 38.5 x 47.5 mm (incl. protection tube)
measurements	300 g (without objective)
housing material	aluminium, black anodized
window material of the tube	glass
connection	1 female plug M12x1, 8-pole; 1 male plug M12 x1, 8-pole; 1 male plug M12 x1, 5-pole
mounting	2 sliding blocks with internal thread M5 (variable distance)
configuration software	suitable under Windows 98, NT 4.0, XP and 2000

Bestell-Informationen

Designation	Short Description
IZS 1024	Line sensor, 1024 pixel, 2000 Hz, RS 232
OT 38-62	Objective protection tube (IP 65)
	Connecting cable
AK8-763-FC-5m	Connecting cable with 8-pin female plug, type M12 straight, 5 m
AK8-763-MC-5m	Connecting cable with 8-pin male plug, type M12 straight, 5 m
AK8-763-MC-FS9-5m	RS 232-connecting cable with connector 8-pole type M12 straight and female plug Sub-D 9-pole, 5m

C-mount-compact-objective with fixable focus and aperture ring

Type	Focal distance	Relative opening	Smallest distance	Image angle (θ/2) *	Filter thread	Dimensions	Measurements
H1212B-TH	12 mm	1.2	0.2 m	31°	M27 x 0.5	Ø 30 x35.5mm	67 g
C1614A-TH	16 mm	1.4	0.3 m	24°	M27 x 0.5	Ø 30 x33 mm	58 g
B2514D-TH	25 mm	1.4	0.3 m	16°	M27 x 0.5	Ø 30 x37.3 mm	76 g
C5028-M	50 mm	2.8	0.9 m	8°	M27 x 0.5	Ø 29.5 x34 mm	55 g

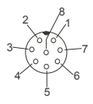
* Information for IZS 1024

	LED-line lightings
ZLI-150	Diffuse line lighting, IR 150 mm
ZLI-300	Diffuse line lighting, IR 300 mm
ZLI-450	Diffuse line lighting, IR 450 mm
ZLI-900	Diffuse line lighting, IR 900 mm

Scope of delivery

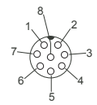
Line sensor IZS 1024 incl. configuration software and operation manual, without objective, objective protection and cable

Contact Assignment



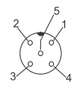
M12x1 male, 8-pole

1 (+) supply voltage output contacts
2 (+) 24V DC supply voltage
3 GND output contacts
4 digital input (triggering from external)
5 output contact "lower limiting value exceeded"
6 output contact "upper limiting value exceeded"
7 GND supply voltage
8 output contact "within the limiting values"



M12x1 female connection, 8-pole

1 TxD of the RS 232-interface
2 not assigned
3 RxD of the RS 232-interface
4 trigger output for ext. lighting
5 GND power output 4...20 mA
6 not assigned
7 GND of the RS 232-interface
8 (+) power output 4...20 mA



M12x1 male, 5-pole

1 DRAIN (not assigned)
2 not assigned
3 GND of the CAN-Bus
4 high-net of the CAN-Bus
5 low-net of the CAN-Bus

Dimensions