



Model Number

VOS310-100

Vision sensor for complex object recognition with feature check and 16 job storage memory locations

Features

- Configurable vision sensor
- With up to five feature checks
- Five selectable evaluation methods
- Configuration via PC with VOS3-Config
- Automatic operation without PC
- Offline parameterisation
- Ethernet and RS422 interface
- Integrated illumination
- External focus setting

Accessories

VOL300-FL45-RT

External lighting

OMH-VOS300-01

Mounting aid

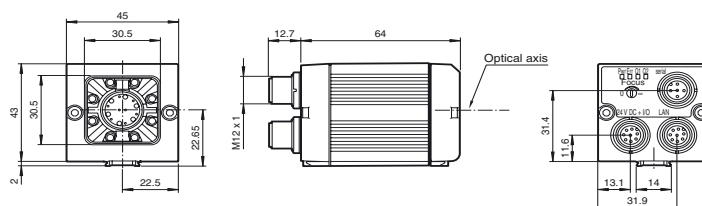
OMH-VOS300-K01

Mounting aid

VOL300-FL45-WH

External lighting

Dimensions



Electrical connection

Pinning according 5-pin M12-connector (serial)



Pin	Signal	Color
1	RxD+	white
2	RxD-	brown
3	TxD+	green
4	TxD-	yellow
5	GND	grey

Pinning according 8-pin M12-connector (24 V DC + I/O)



Pin	Signal	Color
1	IN1	white (TRIGGER)
2	+24 V DC	brown
3	OUT3	green (RESULT)
4	OUT2	yellow (READY)
5	IN2	grey
6	OUT1	pink (EXT_ILL)
7	GND	blue
8	OUT4	red (POSITION)

Pinning according 8-pin M12-connector (LAN)



Pin	Signal	Color	Pin (RJ45)
1		white/blue	5
2		white/brown	7
3		brown	8
4	TxD-	orange	2
5	RxD+	white/green	3
6	TxD+	white/orange	1
7	RxD-	blue	4
8		green	6

Technical data

General specifications

Object distance	20 ... 500 mm , Nominal 100 mm
Light source	Integrated LED lightning or External lighting
Picture detail	8 mm x 6 mm ... 135 mm x 100 mm , dependant of operating distance 30 mm x 22 mm At 100 mm operating distance
Trigger mode	Free-running or triggered externally
Depth of focus	± 5 % of the operating distance
Light type	White light
Resolution	640 x 480 pixels
Capture range	adjustable

Parameterisation/software

Parameter assignment	Parameterisation via PC user interface VOS3-Config
Evaluations per picture	
Position detection	Can be activated/deactivated
Feature detection	1 ... 5
Location tracing	Location tracing with result from position detection
Evaluation procedure	
Position detection	Focal point Touch Pattern Correlation
Feature check	Grey scale value Gradient Contrast Pattern Contour

Indicators/operating means

Operating display	LED green
Function display	LED red: fault signal , LED yellow: switching state (2x) : Position OK/features OK
Focus setting	Focus adjustable via set screw

Electrical specifications

Operating voltage	U _B	24 V DC ± 20 %
Operating current		200 mA without load
Protection class		2
Ripple		5 V _{pp}

Interface

Interface type	Ethernet 100 MBit/s , RS 422
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Input

Input voltage	24 V
Control input	External triggering
switching threshold	high: ≥ 10 V, low: ≤ 3 V , trigger on the ascending edge

Output

Switching type	NO pnp optically decoupled , short-circuit/overload protected
Switching voltage	24 V
Switching current	max. 200 mA each output
Pulse extension	adjustable

Output 1

Output type	Connection to external lighting
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Output 2

Output type	Outputs 3 + 4 valid
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Output 3

Output type	All features within tolerance
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Output 4

Output type	Position detected/within tolerance
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Ambient conditions

Ambient temperature	0 ... 50 °C (273 ... 323 K)
Storage temperature	-20 ... 60 °C (253 ... 333 K)
Shock resistance	< 50 g

Mechanical specifications

Protection degree	IP67
Connection	M12 connector, 5 pin ; 2 x M12 connector, 8-pin
Material	
Housing	anodised aluminium , plastic
Optical face	Plastic pane
Installation	with Fixation clamp for sensors with dove tail
Mass	approx. 170 g

Curves/Diagrams

