DATALOGIC - VISION SENSOR DATAVS2 OBJ

DATAVS2-06DEOBJ
Vision senor 6mm lens



- 7 different controls
- Memory for up to 20 different inspections
- 4 outputs

PRODUCT DESCRIPTION

DataVS2 is a series of Vision sensors for flexible solutions for machine applications.
The sensor is complete with optics, red LED lighting and electronics in a compact housing. The parameters in the sensor are set via PC through Ethernet communication. The software comes with the sensor and is developed to lead the user step by step through parameter setting. DataVS2 is available in four different versions with different control instruments.
Object Recognition OBJ - Is the base model and compares parts against a basic image. It has 7 different control instruments to work with.





TECHNICAL DATA

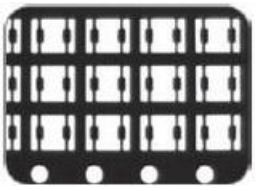
Supply voltage	24 V DC ±10 %
Ripple	1Vpp max. with lighting 2Vpp without lighting
Current consumption	100 mA at 24 VDC (without lighting)
Output type	4 PNP
Output current	100 mA max.
Resolution	640x480 (VGA)
Network interface	M12 4-pole Ethernet 10/100 Mbs
Interface external lighting	Strobe signal (24 V PNP N.O)
Frame rate	60 fps
optics	integrated (6 mm/8 mm/12 mm/16 mm)
Indication	4 LED

Connection	M12 8-pole A-coded M12 4-pole D-coded
IP-class	IP50
Encapsulation material	Aluminium alloy/ABS
Weight	125 g
Working temperature	-10 to +50 ºC
Storage temperature	-25 to +70 ºC

CONTROL INSTRUMENTS

Object recognition

Seven different controls cover most applications

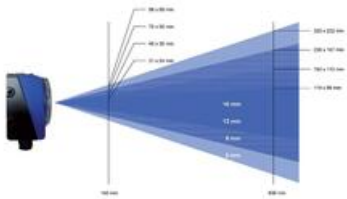
Control	Function	Applications	Image
Pattern Match	Search for a sample within a specified range	• Packaging: check of logo • Installation: product-orientation • Automation of post: stamp control	
Contour Match	Control of form	• Metal working: integrity check • Foodstuffs: control of form	
Position	Control of limit position of the object	• Bottling: level control • Foodstuffs: control of label position	
Width	Measures the object's width	• Installation: control of plastic parts • Woodworking industry: measurement of branch thickness	
Counting	Counts number of objects along a line	• Electronics: counting components • Pharmaceutical industry: Counting units	
Contrast	Calculation of contrast	• Foodstuffs: checking presence of date and consignment label • Metal working: Check of laser marking	

Brightness	Calculation of luminance	• Bottling: checking presence of cap • Packaging: counting objects	

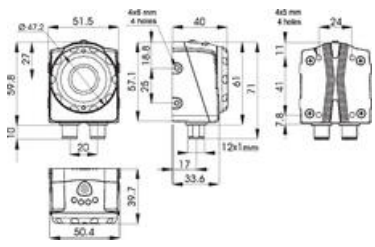
READ FIELD

Read field

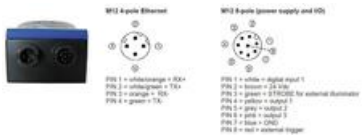
Working distance (mm)	Read field (Width x Height) in mm			
	DATAVS2-16-DE-xxx	DATAVS2-12-DE-xxx	DATAVS2-08-DE-xxx	DATAVS2-06-DE-xxx
50	-	17 x 12	25 x 20	42 x 30
80	-	25 x 20	40 x 30	60 x 41
110	-	33 x 25	55 x 40	80 x 55
140	31 x 24	45 x 35	70 x 50	98 x 69
170	39 x 29	53 x 38	85 x 60	118 x 83
200	46 x 34	60 x 50	100 x 70	138 x 92
300	70 x 53	90 x 65	145 x 103	201 x 140
400	94 x 71	121 x 82	186 x 132	265 x 189
500	118 x 89	150 x 110	236 x 167	330 x 232
600	143 x 107	185 x 130	282 x 232	385 x 270



DIMENSIONS



CONNECTION



ORDER NUMBER

Order number	Description	Output
DATAVS2-06DEOBJ	6 mm lens, OBJ	4 outputs
DATAVS2-08DEOBJ	8 mm lens, OBJ	4 outputs
DATAVS2-12DEOBJ	12 mm lens, OBJ	4 outputs
DATAVS2-16DEOBJ	16 mm lens, OBJ	4 outputs
DATAVSCVRJ45D03	Ethernet cable 3m	

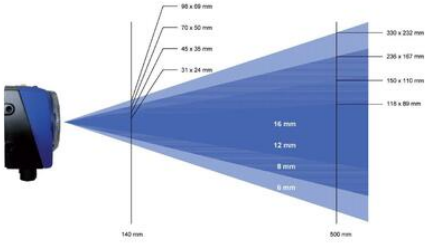
DOWNLOAD

Data sheet	Download
Manual	Download

SPECIFICATIONS

Electrical connection	M12 4 pole D-coded, M12 8 pole connector
Frame Rate	60
IP Class	IP50
Lens material	ABS plastic
Material Protection	Aluminium
Output	4xPNP
Output current max	0.1 A
Power consumption max	0.1 A
Temperature range from	-10 °C
Temperature range to	50 °C
Voltage DC max	24 V
Voltage DC min	24 V
Voltage Tolerance	10%







M12 4-pole Ethernet



PIN 1 = white/orange = RX+
PIN 2 = white/green = TX+
PIN 3 = orange = RX-
PIN 4 = green = TX-

M12 8-pole (power supply and I/O)



PIN 1 = white = digital input 1
PIN 2 = brown = 24 Vdc
PIN 3 = green = STROBE for external illuminator
PIN 4 = yellow = output 1
PIN 5 = grey = output 2
PIN 6 = pink = output 3
PIN 7 = blue = GND
PIN 8 = red = external trigger

Step 1: Image Setup



The first step consists in connecting the sensor and configuring the image quality parameters. When the desired results are obtained, the user can memorise the image that will be used as a template during sensor functioning.

Step 2: Teach

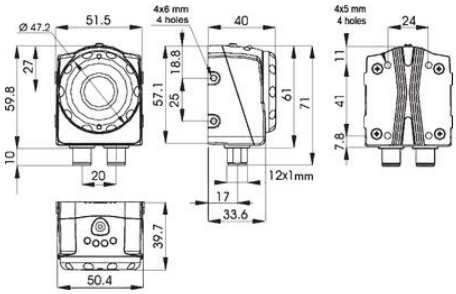


The second step establishes the acceptance criteria to distinguish objects from wastes. One or more controls can be selected according to the task to carry-out.

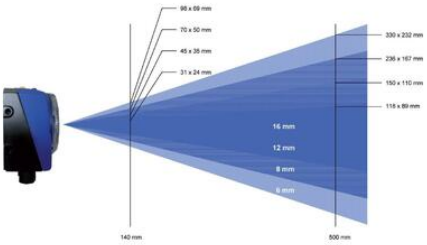
Step 3: Run



The third step configures the sensor digital outputs, simulates sensor functioning on the PC to verify the controls chosen and activates the operating phase on the sensor using the PC only to control the diagnostics.







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