

DATALOGIC - VISION SENSOR DATAVS2 PRO

DATAVS2-16REPRO

Vision Sensor, 16mm lens, PRO, Red LED

- 360° pattern recognition / Controls for Bar code, Datamatrix
- Memory for up to 20 different inspections
- 3 outputs
- RS232 interface



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 4 different versions with different control instruments.

The PRO model - handles the functions in the Advanced and ID models.

It manages 360° pattern recognition and also bar code, datamatrix and OCV. It also has 5 new instruments: 3 locators (Bar code, Datamatrix and 360° contour matching)

2 controls: 360° contour counter, 360° defect finder

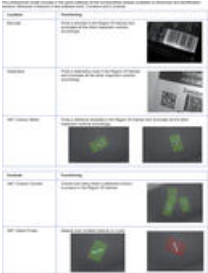


TECHNICAL DATA

Supply voltage	24 V DC $\pm 10\%$
Ripple	1Vpp max. with lighting 2Vpp without lighting
Current consumption	100 mA at 24 VDC (without lighting)
Output type	3 PNP, 100 mA max.
	RS232
Resolution	640x480 (VGA)
Network interface	M12 4-pole Ethernet 10/100 Mbps
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 °C
Storage temperature	-25 to +70 °C

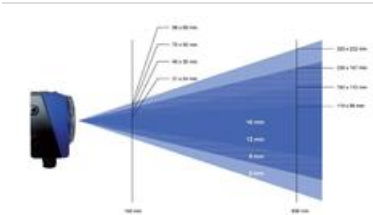
CONTROL INSTRUMENTS



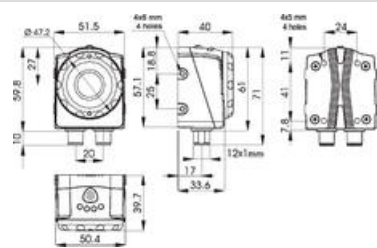
READ FIELD

Read field

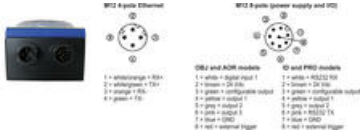
Working distance (mm)	Read field (Width x Height) in mm			
	DATAVS2-16-DE-xxx	DATAVS2-12-DE-xxx	DATAVS2-08-DE-xxx	DATAVS2-06-DE-xxx
50	-	17 x 12	25 x 20	42 x 30
80	-	25 x 20	40 x 30	60 x 41
110	-	33 x 25	55 x 40	80 x 55
140	31 x 24	45 x 35	70 x 50	98 x 69
170	39 x 29	53 x 38	85 x 60	118 x 83
200	46 x 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
DATAVS2-06-RE-PRO	6 mm lens, PRO	3 outputs, RS232
DATAVS2-08-RE-PRO	8 mm lens, PRO	3 outputs, RS232
DATAVS2-12-RE-PRO	12 mm lens, PRO	3 outputs, RS232
DATAVS2-16-RE-PRO	16 mm lens, PRO	3 outputs, RS232
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	3xPNP, RS232
Output current max	0.1 A
Power consumption max	0.1 A
Resolution	640x480 (VGA)
Temperature range from	-10 °C

Temperature range to	50 °C
Voltage DC max	24 V
Voltage DC min	24 V
Voltage Tolerance	10%



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.

The professional model includes in the same software all the functionalities already available on Advanced and Identification versions. Moreover it features 5 new software tools: 3 locators and 2 controls.

Locators	Functioning
Barcode	Finds a barcode in the Region Of Interest and re-locates all the other inspection controls accordingly.
Datamatrix	Finds a datamatrix code in the Region Of Interest and re-locates all the other inspection controls accordingly.
360° Contour Match	Finds a reference template in the Region Of Interest and re-locates all the other inspection controls accordingly.

Controls	Functioning
360° Contour Counter	Counts how many times a reference contour is present in the Region Of Interest.
360° Defect Finder	Detects even smallest defects on a part.



M12 4-pole Ethernet

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



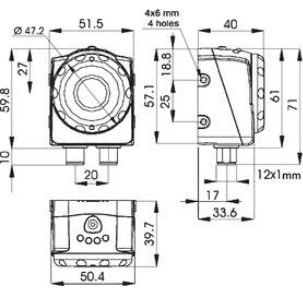
M12 8-pole (power supply and I/O)

OBU and AOR models

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

ID and PRO models

1 = white = RS232 RX
2 = brown = 24 Vdc
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6 = pink = RS232 TX
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Technical drawing of the sensor unit showing dimensions: 51.5, 47.2, 59.8, 27, 10, 20, 39.7, 50.4, 4x6 mm 4 holes, 40, 61, 71, 12x1mm, 33.6, 17, 57.1, 18.0, 25, 45 mm 4 holes, 11, 41, 7.8, 24.



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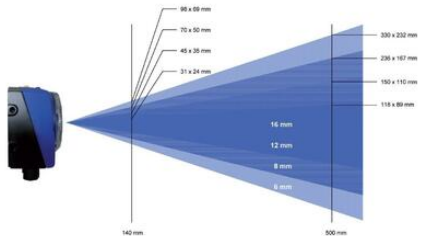
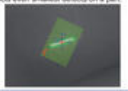
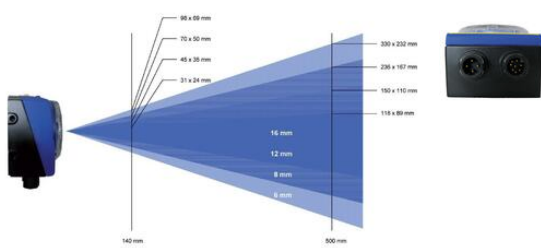


Diagram of the sensor's field of view (FOV) showing dimensions: 66 x 66 mm, 70 x 50 mm, 45 x 35 mm, 31 x 24 mm, 140 mm, 300 mm, 330 x 233 mm, 236 x 167 mm, 150 x 110 mm, 116 x 89 mm, 16 mm, 12 mm, 8 mm, 6 mm.

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