

DATASENSING SMART-VS

Smart sensor based on machine learning

SMARTVSPL5150WHO

Smart VS PLUS, M12 connector, 150m, 3 digital output

- The first smart sensor based on Machine Learning
- Ease of use and installation
- Up to 150mm operating distance
- AI enabled and MLAS - Machine Learning Assisted Setting
- **PLUS version now available**



PRODUCT DESCRIPTION

The Smart vision sensor or Smart-VS is a new, unique and innovative product from Datalogic. Designed for automation applications, it can quickly, easily and reliably detect 'good' and 'not good' objects.

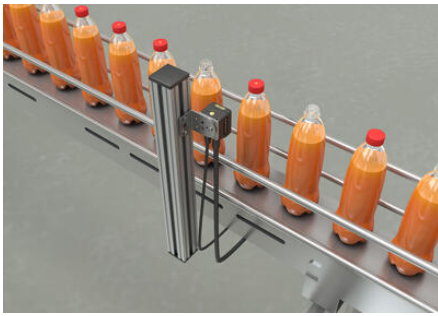
The Smart VS can easily be set up by simply pushing a button and following 3 easy steps, ease of use for all kinds of users and installers. There is no expert programming needed, no vision tool setting, and no external custom monitoring tools necessary to achieve object detection.

The Smart VS has a powerful 'System on Chip' and customised machine learning algorithms, making it reliable in response time which is deterministic in any detection condition. The features of the Smart VS make it the perfect solution for the following applications: the need to check the presence of labels and caps when filling bottles and vials; orientation of objects for proper labelling, independently by material, by color and format of the objects.

The versatility of the Smart VS makes it suitable for use in most varied sectors, such as automotive or automatic assembly of mechanical or electronic parts, but it also finds some of its greatest uses in the food and beverage, pharmaceutical and cosmetics packaging sectors.

TECHNICAL DATA

Dimension (mm)	78 x 47 x 38
Distance max	150 mm
Distance min	50 mm
Integrated communication interface	Ethernet 10/100Mbit/s
IP class	IP65, IP67
Light type	White LED Polarised illuminator
Material	Aluminium
Max. images to handle	20 images
Output	NPN, PNP, Push/Pull
Output data	Data valid, Good, No good
Performance	Depending on application set up
Power consumption	4.2 W
Reading Field of View	22mm x 16mm @50mm, 55mm x 41mm @ 150mm
Resolution	320 x 240 pixels
Response time	20 ms
Storage temperature max	70 °C
Storage temperature min	-20 °C
Supply voltage	10-30 V DC
Temperature operational max	50 °C
Temperature operational min	-10 °C
Weight	173 g
Viewing angle	19°

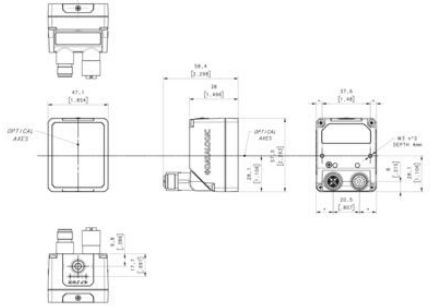
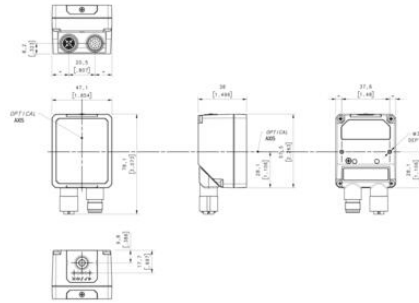


Application name	Solved cases (OK / NOT OK)	
Check label presence		
Cap orientation		
Cap presence		
Check printing on label		



Application name

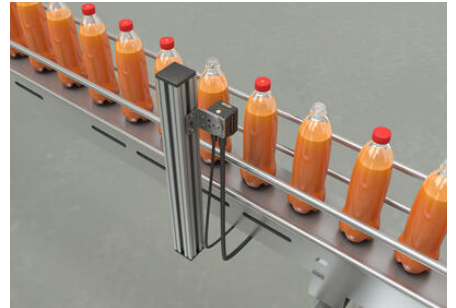
Check label presence		
Cap orientation		
Cap presence		
Check printing on label		



Pin	Name	Colors	Function
1	VCC	Marrone	Power supply input voltage +
2	GND	Blu	Power supply input voltage -
3	Chassis		Connector case provides electrical connection to the chassis
4	1/A	Yellow	1/A Trigger Input A (Polarity Insensitive)
5	1/B	Pink	1/B Trigger Input B (Polarity Insensitive)
13	2/A	White/Green	2/A Remote Touch A (Polarity Insensitive)
3	2/B	White	2/B Remote Touch B (Polarity Insensitive)
9	01*	Red	Data Valid PP
8	02*	Grey	GOOD Output PP
14	03*	Yellow/Brown	NO-GOOD Output PP

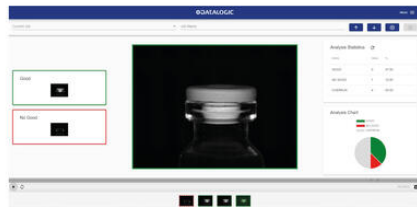


Pin	Name	Function
1	TX+	Transmit data (positive pin)
2	TX-	Transmit data (negative pin)
3	Rx+	Receive data (positive pin)
4	Rx-	Receive data (negative pin)
5	nc	Not Connected
6	nc	Not Connected
7	nc	Not Connected
8	nc	Not Connected



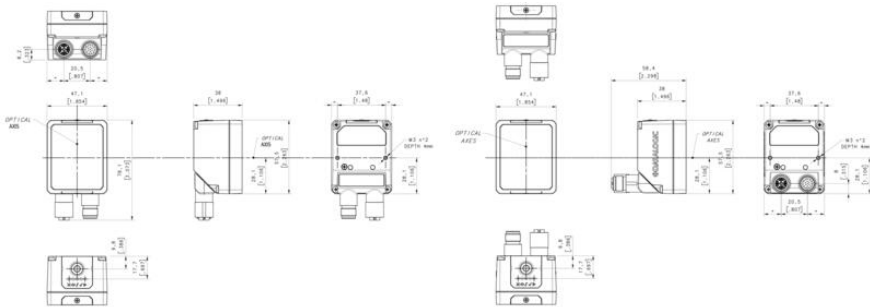
Application name

Check label presence		
Cap orientation		
Cap presence		
Check printing on label		



Application name

Check label presence		
Cap orientation		
Cap presence		
Check printing on label		



M12 17-pin Power, COM, and I/O Connector Pinout			
Pin	Name	Color	Function
1	US	Marine	Power supply input voltage +
2	GN	Blu	Power supply input voltage -
Connector Case			
	Chassis		Connector case provides electrical connection to the chassis
6	IIA	Yellow	IIA Trigger Input A (Polarity Insensitive)
5	IIB	Pink	IIB Trigger Input B (Polarity Insensitive)
13	SA	White/Green	SA Remote Touch A (Polarity Insensitive)
3	SB	White	SB Remote Touch B (Polarity Insensitive)
7	DI*	Red	Data Valid PP
9	DI*	Grey	5000 Output PP
14	DI*	Yellow/Black	NO-5000 Output PP



M12 9-pin Standard Ethernet Network Connector Pinout		
Pin	Name	Function
1	TX+	Transmit data (positive pin)
2	TX-	Transmit data (negative pin)
3	RX+	Receive data (positive pin)
4	RX-	Receive data (negative pin)
5	NC	Not Connected
6	NC	Not Connected
7	NC	Not Connected
8	NC	Not Connected