

DATASENSING SMART-VS

Smart sensor based on machine learning

SMART-VS-MR-5-150-WH-O

Smart VS standard, 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.

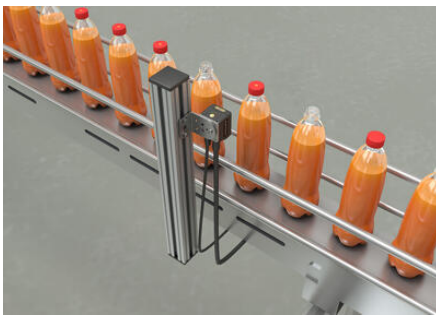
The Smart VS can easily be set up by simply pushing a button and following 3 easy steps, ease of use for all kinds of users and installers. There is no expert programming needed, no vision tool setting, and no external custom monitoring tools necessary to achieve object detection.

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.

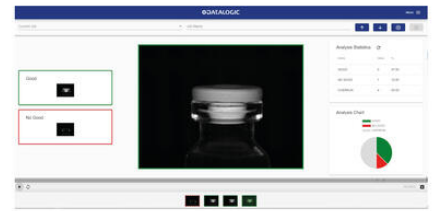
The versatility of the Smart VS makes it suitable for use in most varied sectors, such as automotive or automatic assembly of mechanical or electronic parts, but it also finds some of its greatest uses in the food and beverage, pharmaceutical and cosmetics packaging sectors.

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	6 images
Output	NPN, PNP, Push/Pull
Output data	Data valid, Good, No good
Performance	20pcs per second max
Power consumption	4,2 W
Reading Field of View	22mm x 16mm @50mm, 55mm x 41mm @ 150mm
Resolution	320 x 240 pixels
Response time	50 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°

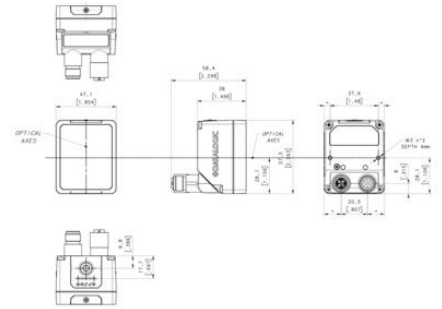
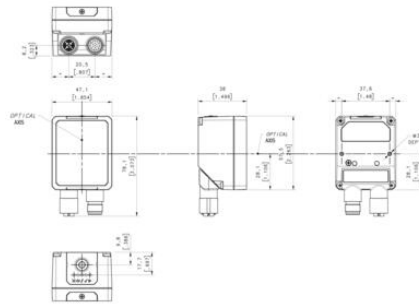


Application name	Solved cases (OK / NOT OK)	
Check label presence		
Cap orientation		
Cap presence		
Check printing on label		



Application name

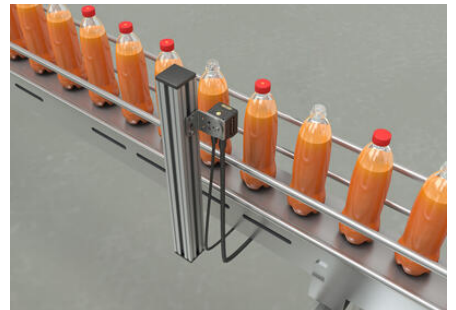
Check label presence	
Cap orientation	
Cap presence	
Check printing on label	



Pin	Name	Color	Function
1	VCC	Maroon	Power supply input voltage +
2	GND	Blue	Power supply input voltage -
Connector Case			
6	11A	Yellow	11A Trigger Input A (Polarity Insensitive)
5	11B	Pink	11B Trigger Input B (Polarity Insensitive)
13	12A	White/Green	12A Remote Teach A (Polarity Insensitive)
3	12B	White	12B Remote Teach B (Polarity Insensitive)
9	01*	Red	Data Valid FP
8	02*	Grey	GOOD Output FP
14	03*	Yellow/Brown	NO-GOOD Output FP

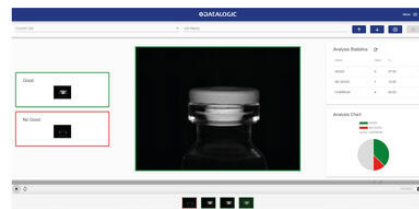


Pin	Name	Function
1	TX+	Transmit data (positive pin)
2	TX-	Transmit data (negative pin)
3	RX+	Receive data (positive pin)
4	RX-	Receive data (negative pin)
5	nc	Not Connected
6	nc	Not Connected
7	nc	Not Connected
8	nc	Not Connected



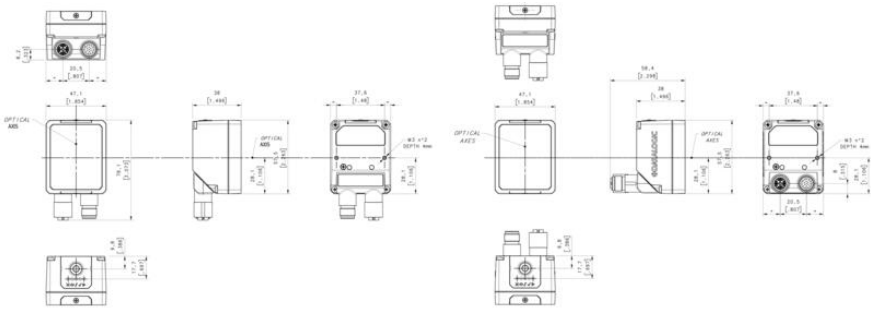
Application name

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 VO Connector Pinout			
Pin	Name	Color	Function
1	5V	Maroon	Power supply input voltage +
2	GN	Blue	Power supply input voltage -
Connector case provides electrical connection to the chassis.			
6	HA	Yellow	HA Trigger Input A (Polarity Insensitive)
5	HB	Pink	HB Trigger Input B (Polarity Insensitive)
11	DA	White/Green	DA Remote Touch A (Polarity Insensitive)
3	DB	White	DB Remote Touch B (Polarity Insensitive)
9	DI*	Red	Data Valid PP
8	DO*	Grey	GOOD Output PP
14	DI*	Yellow/Black	NO-GOOD Output PP



M12 8-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