



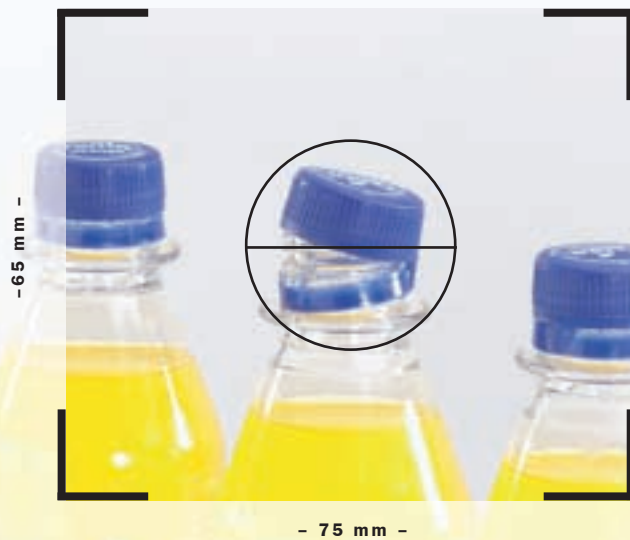
## Contour Vision Sensor CVS3

Contour Detection — Shape, Size and Rotational Position —  
Detecting and Distinguishing

**SICK**  
Sensor Intelligence.

## Contour Vision Sensor: Detection of shapes, profiles and reliefs in any position.

Using contour detection, processes are controlled more efficiently and with less interference.



### Detecting and evaluating characteristic profiles – easily and flexibly

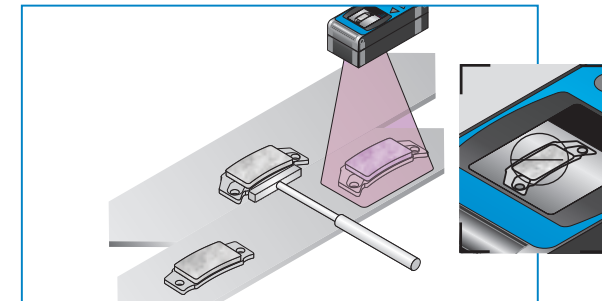
Contours, shapes and sizes are captured irrespective of position – for scanning distances up to 150 mm and fields of view up to 65 x 75 mm<sup>2</sup>.

The intelligent Contour Vision Sensor CVS3 with integrated evaluation software differentiates between objects using shape or size; it detects the presence of, or damage to, printed labels and checks surfaces for contamination.

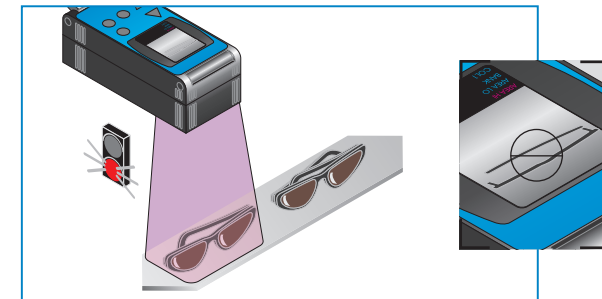
Scanning distance up to 150 mm

## Applications.

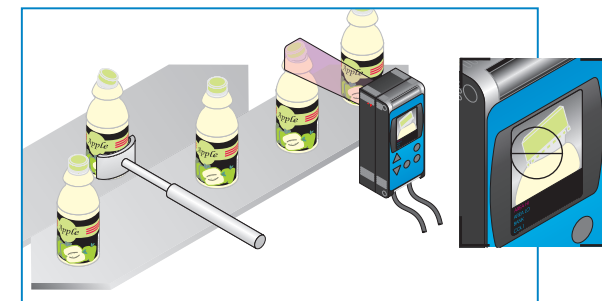
The CVS3 distinguishes objects using the taught-in contour.



Final checking of sunglasses. The CVS3 checks whether frames, lenses and ear pieces are where they belong.



Does the cap fit properly? The CVS3 ensures that only correctly assembled products are packaged.



The integrated memory can take teach-in data for up to 15 different objects; digital switching inputs permit external selection and, thus, fast and flexible product change-overs. During operation, all operational data required remains in view on the LCD display. Thus, the CVS3 combines all components of an image processing system in the smallest space.

During setting and Teach-in, the LCD display supports the CVS3's optimum alignment. The parametrisation is done directly via the device's keypad. Automatic calculation of complex parameters and the serial interface also facilitate parametrisation; once settings are made, they can be stored on a PC and made available to other CVS3 units.

With its robust and compact plastic housing and plastic front screen, the CVS3 is also particularly suitable for use in the food and beverage or pharmaceutical industries. And, thanks to IP 67 enclosure rating, it is particularly suitable for harsh industrial environments.



### Your benefits

- Fast and reliable contour detection
- Object distinction according to shape or size
- Presence detection and damage control of printed labels
- Detection of contaminated surfaces
- Easy and fast commissioning

### Easy to operate

- ▲ UP: Increasing parameter values or scrolling up in the menu
- ▼ DOWN: Decreasing parameter values or scrolling down in the menu
- SET: Selecting menu items, setting new parameter values
- TEACH/EXIT: Starting Teach-in, exiting submenu or parameter value selection
- VIEW: Toggling between different types of image





**The CVS3 at a glance**

- Contour detection
- Scanning distance up to 150 mm
- Up to 60 mm depth of field
- Short cycle times
- LCD colour display
- Integrated keypad
- Integrated LED lighting
- External trigger input and Teach input
- Digital switching inputs for external memory selection
- Robust and compact plastic housing
- Enclosure rating IP 67



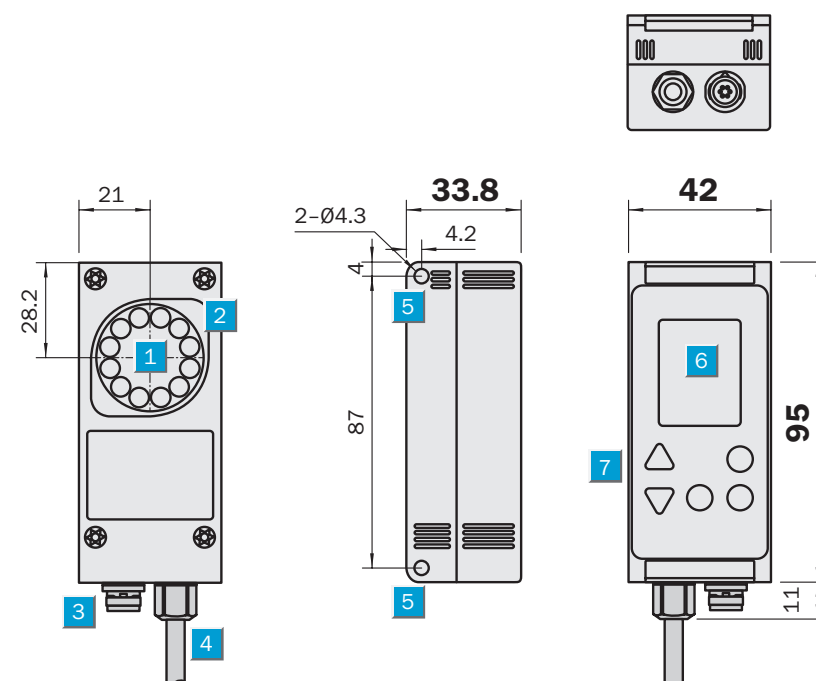
→ □	Nominal scanning dist.
← □	90 ... 150/
→ □	31 ... 39 mm
Contour Vision Sensors	

- Object detection using shape or size
- Check for surface contamination
- Memory capacity for 15 images

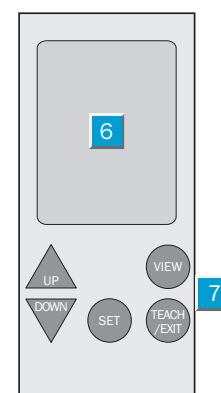


**Contour Vision Sensor CVS3**

**Dimensional drawing**



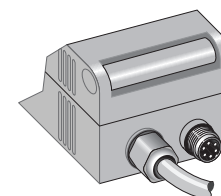
**Adjustments possible**



- 1 Front screen
- 2 Lighting
- 3 Connection: external lighting/monitor/PC
- 4 Connecting cable
- 5 Fixing hole
- 6 Colour display
- 7 Input keypad

**Connection type**

All types



Cable, 8-wire	
← brn	L+
← blu	M
— ora/blk	Bank swit ch 0
— yel/blk	Bank swit ch 1
— pnk	Bank swit ch 2/ External Tea ch
— vio	Bank swit ch 3/ Synchronous input
→ blk	Q
→ red/blk	Auxiliary Q

Technical data	CVS3-	P122	P132	N122	N132
Nominal scanning distance/Field of view	90...150 mm/40 x 50...65 x 75 mm <sup>2</sup> 31...39 mm/15 x 18...19 x 22 mm <sup>2</sup>				
Light source <sup>1)</sup>	12 x LED, white				
Resolution	Max. 208 x 236 x 3 (RGB)				
Supply voltage V <sub>s</sub> <sup>2)</sup>	12...24 V DC				
Current consumption <sup>3)</sup>	< 140 mA (at 24 V)				
Interface	RS 232 TTL (4800 ... 57600 Baud)				
Switching outputs	PNP NPN				
Output current I <sub>A</sub> max.	< 100 mA				
Response time (min./typ./max.) <sup>4)</sup>	7/48/398 ms				
Switching inputs	External trigger, Teach and memory selection				
I/O + V <sub>s</sub> connection	Cable 8-pin cable, L = 2 m				
Ambient temperature T <sub>A</sub> <sup>5)</sup>	Operation: 0 °C ... +40 °C Storage: -20 °C ... +70 °C				
Shock load	5 g, 6 directions				
Housing material	ABS, acrylic, polycarbonate				
Enclosure rating	IP 67				
Weight	180 g				

- 1) Average service life 50,000 h at TA = +25 °C; 50 % drop in intensity
- 2) Limit values ± 10 %
- 3) Without load
- 4) Dependent on settings; as displayed
- 5) Rel. humidity: 35 ... 85 % at operation, 95% at storage

**Order information**

Contour Vision Sensor CVS3		Accessories	
Type	Order no.	Type	Order no.
CVS3-P122	1028673	CVSM-1, external operating device incl. monitor and keypad	1026355
CVS3-P132	1028674	CVSL-S5, external lighting, 12 x LED, white	1026356
CVS3-N122	1028671	Connecting Cable DSL-SH06-G03M, 3 m	6028659
CVS3-N132	1028672	Connection cable DSL-DH06-G02M, 2 m for save/load configuration files to/from PC	6029801

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