

## Vision Sensor Omni Smart Cam PC- like smart camera

- *Universal Vision Sensor*
- *Heavy-duty housing with IP67 protection level*
- *Software Windows XP and OmniPro*
- *VGA up to 2 MPixel monochrome or colour CCD Sensor*
- *Opto-coupled trigger input and strobe output*
- *GigE, USB and VGA output*

The **Omni Smart Cam** is a smart camera based compact and network-compatible vision sensor. The Omni Smart Cam Series cover different code type readers, OCV readers up to inspection systems.

The flexible module based vision tool (different camera types, software applications, lenses and external lighting systems) matches a widespread variety of tasks and situations.

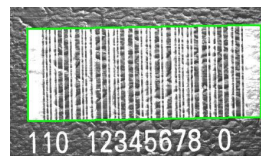


### Features and assets

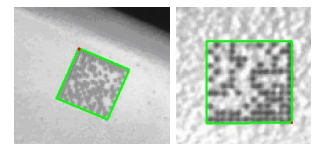
- Reading distances up to a couple of meters
- Intuitive user interface
- Password protected expert mode
- Really easy set up and adjustment
- Very fast reading ability
- Save correct and incorrect decoded images
- A variety of external communication interfaces
- Ethernet based network integration

### Scope of use

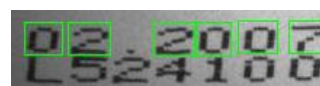
- Decoding of dot peen, laser and printed codes
- ISO conform code quality assessment
- Parts identification check
- Checking of best-before dates, article numbers and the like
- Print control
- Inspection of drilled holes and screw threads on presence and defects
- Inspection of laser cut-outs
- Presence check of lids, covers and other
- Automatic tooling control
- Type determination
- Colour check
- And many more



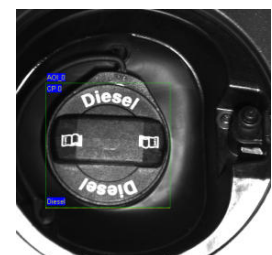
On synthetic material  
lasered barcode



Dot peen codes on metallic  
surface



expiration date on boxes



Type determination for a fuel  
tank cap

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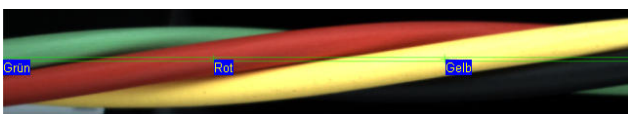
## Software OmniPro

The OmniPro software supervises image taking and interface control over the user interface.

The user interface is in a user-friendly Windows format and has four user levels, one for the worker (normal/measurement mode) and three password-protected user levels for users, service, and administrator.

### Software features

- Various configurations can be parameterised and loaded
- Simple system configuration with the help of camera assignments and image assignments
- Interfaces with adjustable parameters
- The individual recognition results can be logically linked for the OK/NOK total evaluation
- Camera triggering over digital or serial signal TCP/IP command or by direct trigger
- Configurable triggering de-bouncing time
- image-taking and pusher delay time can be set
- Continuous recognition over an adjustable time frame
- Dynamic image search area positioning using line, circle, blob or pattern tracker
- Saving OK/NOK images in a circular buffer
- High speed process RAM image storage
- Software trigger function for trigger simulation
- Automatic log-out of users after an adjustable time interval
- Shift register to load comparison strings for offset cycles
- Event log files



Cable colour inspection

## Image Keeper

The Image Keeper enables image saving on a different PC, whereby several images can be joined as one.

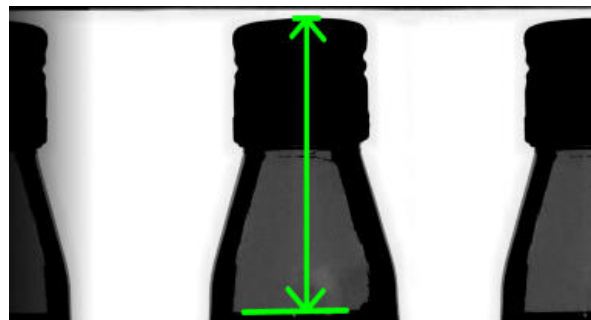
### Software modules

A variety of standard software application modules are available:

- Datamatrix
- Datamatrix code quality assessment
- Barcode with code quality assessment
- CheckPro XT
- OCV
- OCR Pro
- Pattern Match
- Check Blob
- Color Check
- Cable Inspect
- Gloss Check



Surface imperfection control



Fill level check

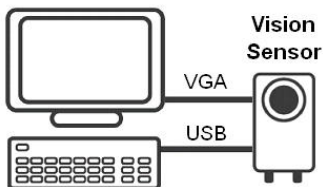
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## Different Views

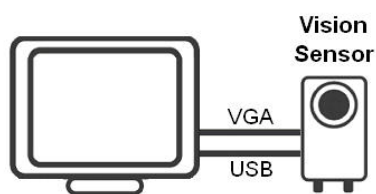


*Omni Smart Cam with compact objective (without tube)*

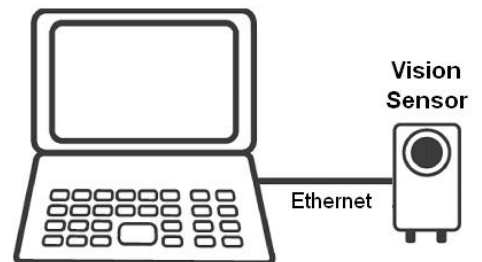
## Simple parameterisation via different hardware variants



*Monitor and keyboard*

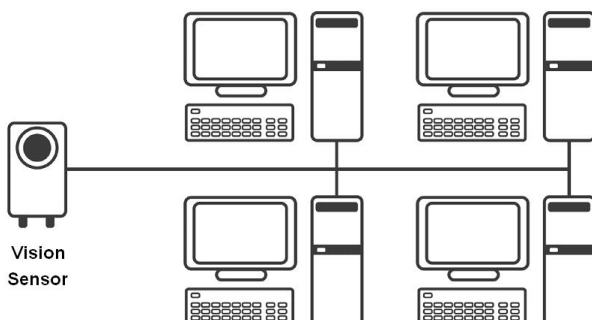


*Touch panel monitor*



*PC/Notebook*

## Omni Smart Cam in a network



## Connections



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## Technical Specifications

	OSC-GT300/ OSC-GT300C	OSC-GT1200/ OSC-GT1200C	OSC-GT1900/ OSC-GT1900C
<b>Sensor</b>			
CCD sensor format	monochrome/colour	monochrome/colour	monochrome/colour
Sensor model	Kodak KAI-0340	Sony ICX445	Sony ICX274
Chip size	1/3"	1/3"	1/1.8"
Effective resolution (H x V)	640 x 480	1280 x 960	1600 x 1200
Frame rate	110 fps	22.5 fps	15 fps
Pixel size (H x V)	7.4 µm x 7.4 µm	3.75 µm x 3.75 µm	4.4 µm x 4.4 µm
Gain	0 to 36 dB	0 to 36 dB	0 to 36 dB
Shutter speeds	34 µs to 1.19 s	58 µs to 2.91 s	88 µs to 3.5 s
<b>Processing</b>			
CPU	1.6 GHz Intel® Ato® (Z530)		
Memory	512 MB DDR2 / 2GB flash disk		
<b>I/Os</b>			
Network	10/100/1000 Mbit Ethernet		
User Interface	VGA, USB (keyboard & mouse)		
Serial Interface	RS-232		
Digital I/Os	4 inputs, 4 outputs (including a strobe output), 1 opto-coupled trigger		
Current-controlled	0-500 mA in 255 steps for LED illuminators		
<b>Mechanical, electrical and environmental information</b>			
Dimensions	see fig. on page 6		
Objective type	C-mount		
Connectors	M12-8 pins for Ethernet, M12-17 pins for power, RS232 and digital I/Os, M12-12 for VGA and USB ports		
Weight	0.7 kg or 1.5 lbs		
Power consumption	425 mA @ 24VDC or 10 W (typical)		
Operating temperature	0 °C to 50 °C (32 °F to 122 °F)		
Ventilation requirements	natural convection		
Certifications	FCC class A, CE class A, RoHS-compliant , IP67 enclosure (IEC 60529-dust tight and protected against temporary immersion), EN 60721-3-3 Category 3M8 (operating vibration up to 5g and shock up to 25g)		
<b>Software environment</b>			
Operating system	Microsoft Windows XP Embedded (XPe) with SP3		
Image processing	OmniPro		
<b>Further hardware</b>			
Objective	Task specific (See accessories!)		
Illumination	Task specific (See accessories!)		

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## Accessories

Art number	Identification	Description
GT-CBL-ETH/2	Ethernet cable for Omni Smart Cam, 2m	CAT5e, shielded, 4-pairs, AWG26 flexible (7-wired), RAL 5021 (water blue), M12 8-pole A-coded on RJ45-plug, Length: 2m
GT-CBL-ETH/5	Ethernet cable for Omni Smart Cam, 5m	Like GT-CBL-ETH/2, Length: 5m
GT-CBL-PWR/3-k	Power cable, RS-232 and I/O for Omni Smart Cam, 3m	Sensor-/Power-cable, 17-pole, PVC black, even socket M12-SPEEDCON with open connector ends, Conf. with 3kΩ resistor on trigger and 4 digital inputs Length: 3m
GT-CBL-PWR/5-k	Power cable, RS-232 and I/O for Omni Smart Cam, 5m	Like GT-CBL-PWR/3, Length: 5m
GT-CBL-PWR/10-k	Power cable, RS-232 and I/O for Omni Smart Cam, 10m	like GT-CBL-PWR/3, Length: 10m
GT-CBL-VGAUSB	Connector cable, VGA and USB for Omni Smart Cam, 1m	1. connector end: 15pol. VGA, 2. connector end: USB Length: 1m
	Compact objective	Objective with fixed focal length (4,8/8,5/12/16/25/35/50/75 mm), Choice on the required field of view and working distance: we can advise you on choosing the right lens!
	Zoom objective	For 1/3"-cameras: Objective 5-50mm, Objective 5,5-82,5mm
	Illumination	LDL/LDS-DT-Series (in different LED-colours/light emitting angles and diffuse available) Task defined choice: we can advise you on choosing the right lighting!
	Mounting sets	We will suggest a suitable mount!

( Other accessories on request)



Power cable, RS232, I/O



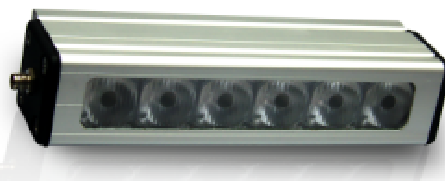
Ethernet cable



LDL-DT1/23



LDL-DT3/73-xD



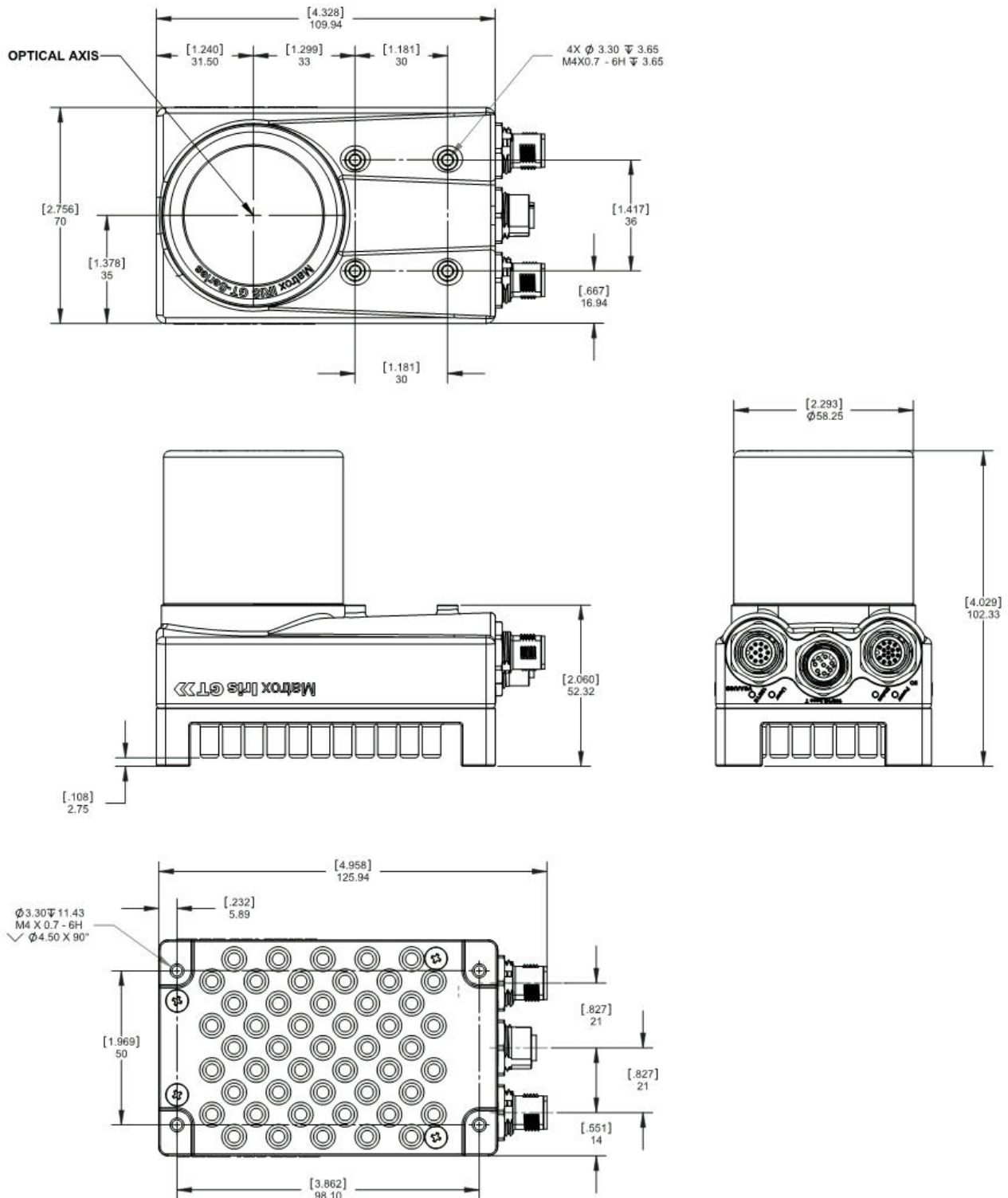
LDL-DT6/148



LDS-DT2x2/50

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## Dimensions



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