

VISOR® Allround

System description

VISOR® Allround – Object detection in colour plus identification united in one device

The VISOR® Allround is the latest member in the VISOR family and a real multi-talent among vision sensors. In the new allround version, the device unites the functions of the object sensor (i.a. pattern matching, contour, calliper, BLOB) with the powerful tools of the code reader (bar code, datamatrix and optical character recognition). When feeding parts in correct alignment or positioning components, additional datamatrix codes for example can now also be read. With a resolution of up to 1.3 megapixel even the smallest details are reliably detected and evaluated.

In addition to the monochrome version, the VISOR® Allround is also available as a colour version with up to 1.3 megapixel. Thus additional "Detectors" are available for colour evaluation. Even the subtlest nuances in shade can be reliably detected. The relevant object colours, for example, can be taught-in quite simply by push of a button or - thanks to the intuitive colour histogram - set graphically for each channel in the colour space. The authorised colour tolerances can be defined by the user.

Special image filters for image pre-processing can be used, e.g. to highlight edges or to suppress distracting details.

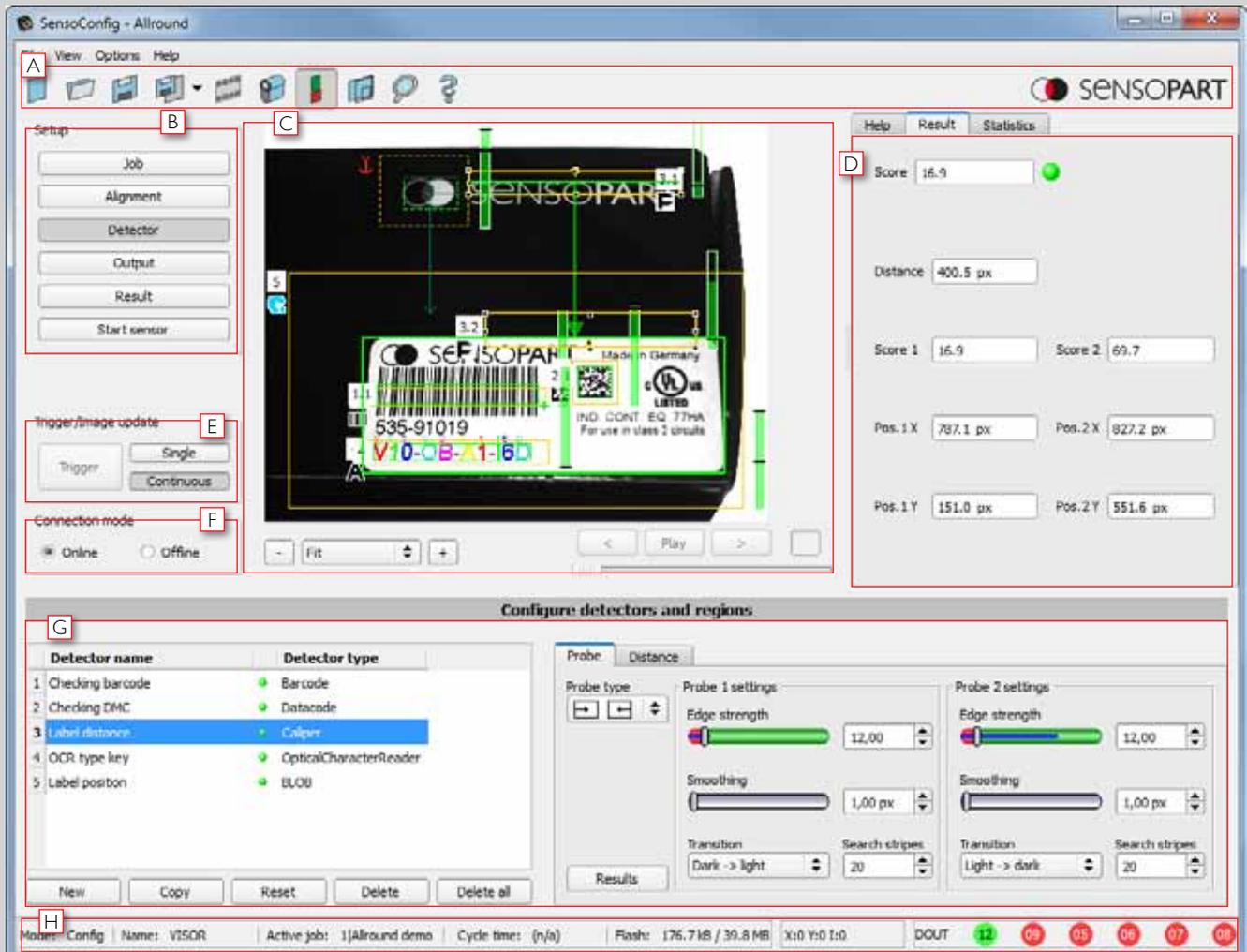
Communication interfaces

In addition to EtherNet/IP and TCP/IP, the VISOR® vision sensors also support the fieldbus standard Profinet IO and thus "understand" the most common communication standards of Industrial Ethernet. Thanks to freely available PLC function blocks for Siemens S7, Codesys and Allen Bradley, the VISOR® can also be easily and flexibly connected to PLC environments.

The new VISOR® Allround is thus one of the most powerful vision sensors in the market.

Product variants: the VISOR® Allround

Features/sensors	VISOR® Allround V10/V20	VISOR® Allround V10C/V20C
Functions		
Resolution V10 in pixels	736 x 480 Mono	736 x 480 Colour
Resolution V20 in pixels	1280 x 1024 Mono	1280 x 1024 Colour
Image rate per second V10 V20	50 40	40 20
Number of jobs detectors	max. 255 max. 255	max. 255 max. 255
Position tracking	✓	✓
Contour (X-,Y-translation, rotation)	✓	✓
Pattern comparison (X-,Y-translation)	✓	✓
BLOB	✓	✓
Calliper	✓	✓
Grey threshold	✓	✓
Contrast	✓	✓
Brightness	✓	✓
Colour area	–	✓
Colour list	–	✓
Colour value	–	✓
Data code	✓	✓
Bar code	✓	✓
Optical character recognition (OCR)	✓	✓
Freeform Tool	✓ (not with data codes and bar codes)	✓ (not with data codes and bar codes)
Interfaces		
Inputs outputs	2 4	2 4
Freely definable switching outputs/ inputs, PNP or NPN	4	4
Encoder input	✓	✓
I/O expansion	✓	✓
RS232 RS422	✓ ✓	✓ ✓
Ethernet/data transmission	✓	✓
EtherNet/IP	✓	✓
PROFINET	✓	✓
Lens		
V10 integrated, 6 mm 12 mm 25 mm	✓ ✓ ✓	✓ ✓ ✓
V20 integrated, 12 mm	✓	✓
C-mount	✓	✓
Operation/visualisation		
Viewer software with user guidance	✓	✓
Hierarchical user rights	✓	✓



Overview of the user interface

- A Menu bar:** rapid access to the most important functions.
- B Setup navigation:** dependable user guidance through the configuration process.
- C Image window:** live picture of the object with graphic display of inspection area and results.
- D Context help:** precise information on every work step.
- E Trigger function:** triggered operation or free-running, single picture or serial switching.
- F Online/offline operation:** operating with sensor connected or simulation with stored pictures.
- G Configuration window:** input of parameters for every navigation step.
- H Status line:** current information on active job and on state of outputs.