

The vision colour sensors of the VISOR® Color series offer comprehensive functions for detecting coloured objects. Instead of the usual monochrome imaging chip they are equipped with a colour chip with a resolution of up to 1.3 megapixels (V20).

The comprehensive selection of detectors for object detection corresponds to the functional range of VISOR® object sensors. In addition to the detectors for sample comparison, contour, contrast, grey level, brightness and position tracking (selectable via sample comparison, contour or edge scanning), the VISOR® Color is also equipped with three detectors for colour detection. Three colour spaces (RGB, HSV, Lab) and several colour channels are available.

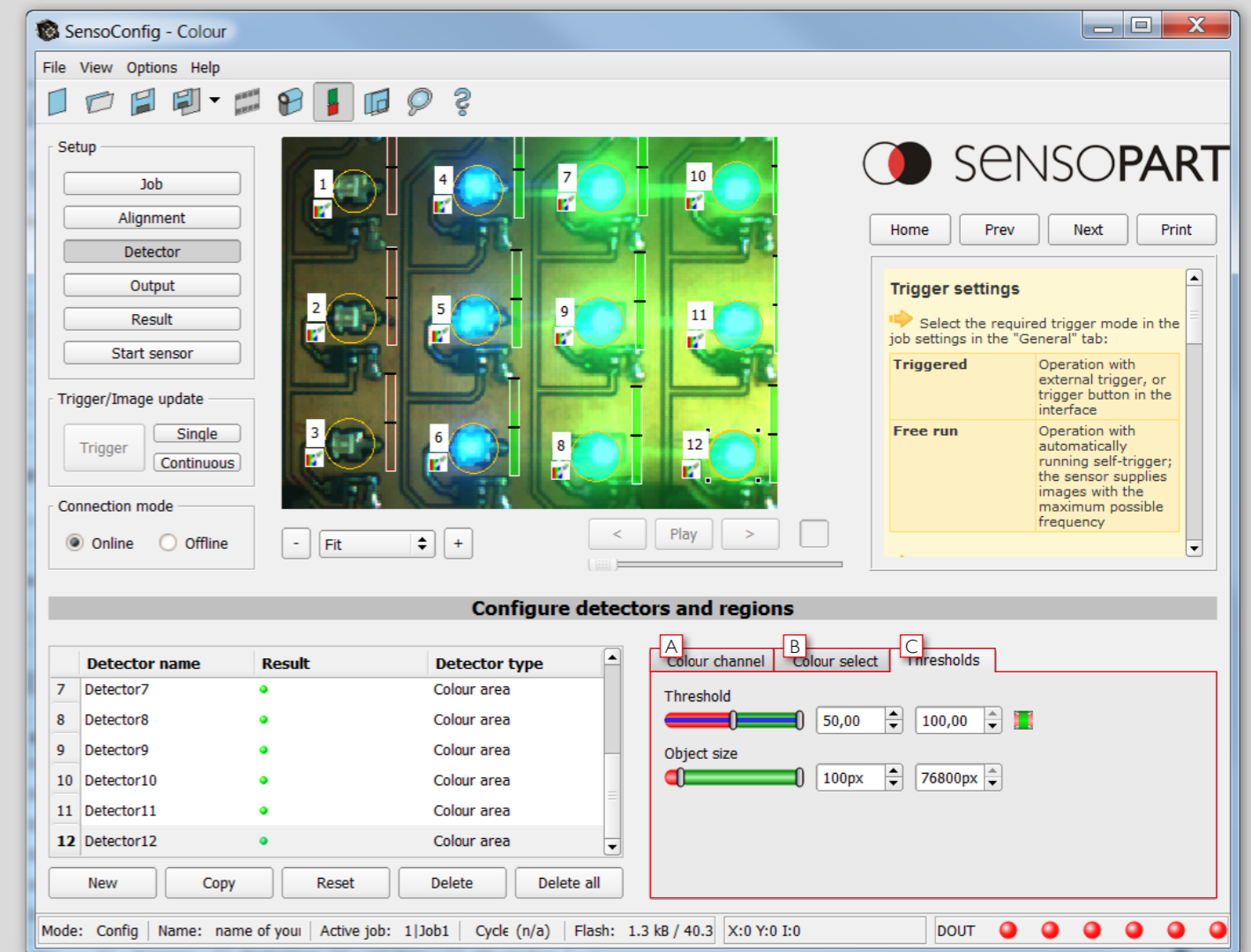
With the new colour detectors, the VISOR® Color is capable of differentiating between the finest of colour nuances. Any desired number of colours, colour gradients or colour patterns can be stored in the sensor memory and called up on demand. Moreover, objects with similar colours can be searched for.

Uniform operation for all VISOR® sensors

Setup of the VISOR® Color takes place via the proven intuitive user interface of the VISOR® series, with which even complex inspection tasks can be configured without detailed knowledge of image processing. Inspection tasks (jobs), position tracking (alignment) and the desired evaluations (detector) can be configured and tested in a few intuitively understandable setup steps. The effect of every setting is immediately visible in the image. Comprehensive logic functions allow the direct assignment of complex inspection results to one of six digital results outputs. With the help of the I/O expansion, available as an accessory, it is even possible to trigger up to 32 supplementary switching outputs.

Product variants: VISOR® Color

Features/sensors	Standard	Advanced
Functions		
Resolution, V10	736 x 480 Color	736 x 480 Color
Resolution, V20	–	1280 x 1024 Color
Image rate per second V10 V20	40 –	40 20
Number of jobs detectors	8 32	max. 255 max. 255
Position tracking	Contour only	✓
Contour (X-, Y-translation, rotation)	✓	✓
Sample comparison (X-, Y-translation)	–	✓
Caliper	–	✓
Grey level	–	✓
Contrast	✓	✓
Brightness	–	✓
Colour value	–	✓
Colour area	✓	✓
Colour list	–	✓
Free-form tool	–	✓
Interfaces		
Inputs outputs	2 4	2 4
Freely definable switching inputs/ outputs, PNP or NPN	2	4
Encoder input	–	✓
Interface for IO box	–	✓
RS232 RS422	– –	✓
Ethernet / Data transfer	✓	✓ ✓
EtherNet / IP	✓	✓
PROFINET	✓	✓
Lens		
V10 integrated, 6 mm 12 mm 25 mm	✓ ✓ –	✓ ✓ ✓
V20 integrated, 12 mm	–	✓
C-mount	–	✓
Operation / visualization		
Viewer software with user guidance	✓	✓
Graded user rights	✓	✓



Overview of the user interface

- A Colour channel:** selection of the colour space and the colour channels in which the detector is to operate.
- B Colour selection:** setting of the colour to be searched for.
A good/bad result is generated depending on the proportion of the area.
- C Thresholds:** setting of the threshold for the good/bad signal.