COLOUR SENSORS

- 3 channel colour sensor with C or C+I functions and 10 tolerance levels
- Wide spectrum white light LED emission and RGB photoreceiver
- 3 independent NPN or PNP outputs and RS485 serial interface
- 2 push-button easy setting and 4 digit display

S65-V SERIES

The S65-V colour sensors offer the best performances for colour detection in a standard 50x50x25 mm compact housing.

The S65-V0 model, thanks to a good response time of only 340 µs, results to be particularly suitable for automatic packaging applications where high speed and colour mark detection are necessary. The S65-V1 model increases the chromatic sensitivity of S65-V0 towards dark colours, allowing to distinguish even slight tone differences, useful in quality control and part checking, at inferior process speed.

The sensors can memorise and recognise 3 colours on 3 independent channels. The C (chromaticity) or C+I (chromaticity and intensity) detection algorithm and the tolerance level can be chosen for each colour. The 0 - 40 ms delay programming is the same for each channel.

The auxiliary functions include keylock and synchronisation with external events through a specific input. The control panel presents two setting push-buttons, outputs LEDs and a 4-digit display for functioning messages and sensor configuration. Complete remote control is possible for the version with the RS485 serial interface, which in the S65-V1 sensor can also receive RGB chromatic information.
The colour sensor can be configured in a 'C' or 'C+I' detection mode. The 'C' type algorithm is used to obtain a larger depth of field, or to detect colours on different opaque, shiny or reflecting surfaces. The 'C+I' type algorithm offers a higher sensitivity towards tone variations, and is recommended for the detection of different colours on the same type of material. It will also distinguish grey tones.

**INDICATORS AND SETTINGS**

- **A**: Output 'OR' function LED
- **B**: Output status LEDs
- **C**: 4 digit display
- **D**: SET push-button
- **E**: SEL push-button
- **F**: M12 connector output, orientable on two positions

**ACCESSORIES**

For dedicated accessories refer to the ACCESSORIES section of this catalogue.

Refer also to Connectors (A.03) and Fixing Brackets (A.04) of the General Catalogue.

**DIMENSIONS**

**INDICATIONS AND SETTINGS**

**CONNECTIONS**

**S65-PA-5**

Versions and options: refer to MODEL SELECTION TABLE

**COLOUR SENSORS**

- V

**Automation Systems Interconnect, Inc**

Innovative Interconnect and Interface Solutions

www.asi-ez.com
TECHNICAL DATA

Operating distance: 5 ... 45 mm
Power supply: 10 ... 30 Vdc
Ripple: 2 Vpp
Consumption: 60 mA at 24 V
Light emission: white LED 400 -700 nm
Spot dimension: approx. 4 mm at 20 mm
Setting:

Indicators:

Output type:

Output current: ≤ 100 mA
Saturation voltage: ≤ 2 V
Response time:

Switching frequency:

Operating mode:

Tolerance level:

Timing function:

Auxiliary functions:

Connection:

Electrical protection:

Mechanical protection:

Protection devices:

Housing material:

Lens material:

Weight:

Operating temperature: -10 ... +55°C
Storage temperature: -25 ... +70°C
Reference standard: EN 60947-5-2

TECHNICAL NOTES

1 Limit values
2 Average life of 100.000 h with Ta = +25 °C
3 Is activated with SYNC connected to +V at powering
4 Connector can be blocked on two positions
5 A - reverse polarity protection
   B - overload and short-circuit protection

* refer to detection diagrams

DETECTION DIAGRAMS

S65-V0: operating distance according to target reflectivity degree

S65-V1: operating distance according to target reflectivity degree
MODEL SELECTION AND ORDER INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>FUNCTION</th>
<th>CONNECTION</th>
<th>OUTPUT</th>
<th>RS485</th>
<th>ORDER N°</th>
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<td>M12 connector</td>
<td>NPN</td>
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ACCESSORIES

DIMENSIONS

ACCESSORY SELECTION AND ORDER INFORMATION

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<tr>
<td>ST-5020</td>
<td>fixing bracket 50 x 27 x 20 mm</td>
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<td>ST-5021</td>
<td>fixing bracket 20 x 40 x 28 mm</td>
<td>95ACC5340</td>
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Refer also to Accessories for Sensors of the General Catalogue

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<tr>
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<td>CS-A1-06-B-03</td>
<td>M12 8-pole conn. with 3 m unshielded cable</td>
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<td>CS-A1-06-B-05</td>
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<td>CS-A1-06-B-10</td>
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