



TRI-TRONICS®

Smart Sensing Solutions Since 1954

SMARTEYE®
COLORWISE™
TRUE COLOR SENSOR



Single Channel Models



Features & Benefits

- Single Channel Output
- NPN or PNP Selectable
- Low Cost Color Solution
- Shade-to-Shade or Color-to-Color Differentiation
- Speed versus Resolution Selectable
- Remote Color Capture

We Make Sensing Easy!

Applications

- Label Orientation
- Registration Marks
- Logo Color Detection
- Caps, Bottles, Packages, Products Verification/Inspection

The wisest choice you can make!



www.ttco.com/colorwise

FOLLOW US:



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Specifications



SUPPLY VOLTAGE

- 12 to 24 VDC
- Polarity Protected
- Intended for use in Class 2 circuits

CURRENT REQUIREMENTS

- CW-1S: 110mA@12VDC, 80mA@24VDC
- CW-2S: 140mA@12VDC, 85mA@24VDC

PERFORMANCE

- CW-1S: Effective Resolution: Min. 12 bit, Max. 16 bit
- CW-2S: Effective Resolution: 14 bit

OPTICAL CHARACTERISTICS

- Light emitter: White LED
- Optical axis: CW-1S: Coaxial; CW-2S: Convergent
- Receiving spectrum: 400nm to 700nm

DIGITAL OUTPUTS

- Selectable NPN or PNP open collector outputs
- 75mA capacity
- Short circuit & transient voltage protected
- Residual voltage: NPN, 1.35 max.; PNP, 2.05 max.

OUTPUT SELECTION

- LO (Light On or Color Match)
- DO (Dark On or No-Match)

REMOTE CAPTURE INPUT

- Input time: 25mS (ON) / 25mS (OFF) minimum
- Selectable (sinking or sourcing)
- Contact or solid-state input 1mA
- Transient suppression

GATE/LATCH INPUT

- Selectable NPN/Sinking or PNP/Sourcing
- Selectable EDGE or GATE trigger for latch reset or inhibit for windowing
- Contact or solid-state input 1mA
- Transient suppression

TIMER

- On delay, off delay, one shot, and latch
- Duration: 1mS to 10 seconds ±1%

DETECTION MODE

- Color or color + intensity

ALPHA NUMERIC DISPLAY

- Alpha-Numeric Display for Available Options

RESPONSE TIME

- Color-to-color: CW-1S: 75µs (Uspd), 150µs (Hspd), and 300µs (Hres); CW-2S: 600µs
- Shade-to-shade: CW-1S: 100µs (Uspd), 200µs (Hspd), and 800µs (Hres); CW-2S: 800µs

DIAGNOSTIC INDICATORS

- Output Indicator – (Amber)
- Four Character Alpha-Numeric Display – (Green)

AMBIENT LIGHT IMMUNITY

- Responds to sensor's pulsed modulated light source – immune to most ambient light including indirect sunlight

HUMAN INTERFACE

- Pushbutton control: Select, Next

AMBIENT TEMPERATURE

- -5°C to 55°C (23°F to 131°F)
- No ice, frost, or fogging allowed

STORAGE TEMPERATURE

- 5°C to 90°C (41°F to 104°F)

RELATIVE HUMIDITY

- 35% to 85%

VIBRATION

- 10 to 55 Hz, 0.5mm, 30 minutes each axis

SHOCK

- Half-sine wave, 30g, 11µs 6 time 3 axis

CERTIFICATIONS

- CE - Complies with IEC 60947-5-2 edition 3.0 2007-10

LENS MATERIAL

- Acrylic or glass

RUGGED CONSTRUCTION

- Chemical resistant, high impact polycarbonate housing
- Waterproof ratings: NEMA 4, IP67.



RoHS Compliant

Product subject to change without notice

Connections and Dimensions

SMARTEYE® ColorWise™

