

RTCC4 LED Lighting Controller Combined with Trigger Timing Control

The RTCC4 combines the features of the Gardasoft RT Series LED Lighting Controllers with the addition of two digital outputs for triggering cameras or general use.

This combination provides a high level of integration in Machine Vision systems - reducing complexity, space and cost.

- Combines Lighting Control with Trigger timing
- Two extra digital outputs compared with standard Gardasoft RT Controllers
- Includes CC320 functionality
- Encoder input
- SafePower™ and SafeSense™ technologies for lighting control

Combined LED Control & Triggering

Combining the functionality of the Gardasoft CC320 Timing Controller and integrating the RT Series controllers allows precise lighting control combined with the ability to trigger external components such as cameras and reject gates. In addition, inputs can be accepted from encoders or proximity switches that can be used to trigger lights or additional digital inputs.

Sensor, Camera and Reject Gate timing

- Delay from product sensor to camera trigger
- Delay from pass/fail result to reject gate
- Synchronising multiple cameras to trigger at different times
- Handle multiple products with overlapping results

RTCC4 connectivity

2 x Digital outputs



Eg: Reject gate timing



Eg: System cameras

4 x Trigger inputs



Eg: Encoders and Proximity switches

4 x LED light driver outputs



RT Series functionality

The RT Series provides the power regulation, intensity control, timing and triggering of LED lighting required for the application of machine vision systems.

Modes of operation

Four modes of operation are provided separately for each channel:

- Continuous: Output is a continuous level
- Pulsed: Output is pulsed once per trigger
- Switched: Output is switched by a digital input
- Selected: Output intensity selected by a digital input

No Heat-sinking

SafePower™ supply removes the need to mount the controller onto a heat-sink, simplifying the installation process. SafePower™ automatically minimises the heat generated for continuous, pulsed and switched operation.

Voltage Step-up

SafePower™ removes the restriction of the output voltage needing to be less than the input voltage, and automatically steps up or down the voltage needed to drive or Overdrive the lighting, up to a limit of 46V.

SafePower™ works automatically without needing any configuration or user input. For example, the RT range can use a 24VDC supply, regardless of the lighting connected, heat generation or Overdriving required.

Extra LED Brightness

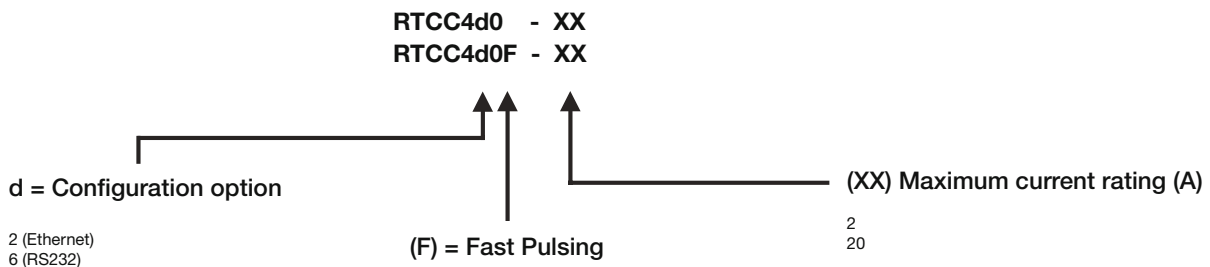
Patented SafeSense™ technology creates a safe working environment for overdriving LED lights. Driving LEDs with a constant current source allows very precise Overdriving. SafeSense™ ensures that the pulse width and duty cycle are kept within safe working limits. The end result is that much more light is gained from the LED lighting for your machine vision application.

SPECIFICATIONS

| | RTCC420 | RTCC460 | RTCC420F | RTCC460F |
|-----------------------------|--|-----------------|--|------------------|
| User interface | Ethernet | RS232, 115KBaud | Ethernet | RS232, 115K Baud |
| Output channels | Four independent current outputs with SafeSense™ | | | |
| Output current | -2 option: Up to 2A per channel continuous or 2A pulsed in steps of 1mA -20 option: Up to 3A per channel continuous or 20A pulsed in steps of 5mA | | | |
| Output power | Max 30W per channel | | | |
| Trigger inputs | 4 opto-isolated digital inputs. 3V to 24V operation | | | |
| Digital outputs | 2 open collector outputs | | | |
| Timing | From 20µs to 999 ms in steps of 20µs/100µs | | From 1µs to 999 ms in steps of 1µs/100µs | |
| Delay from trigger to pulse | From 20µs to 999 ms in steps of 20µs/100µs | | From 3µs to 999 ms in steps of 1µs/100µs | |
| Timing repeatability | Delay + Pulse up to 1ms: 0.1µs for pulse width and 3µs for delay. Otherwise 100µs | | | |
| Output voltage | 0V to 46V | | | |
| Supply voltage | Regulated 24V to 48V | | | |
| Dimensions | 159mm long by 97mm wide by 62mm high (excluding DIN fixing) | | | |
| Weight | 400g | | | |
| Mounting | Panel mounting. DIN rail mount option | | | |

Other Gardasoft Lighting Controllers are available to cover all applications. See www.gardasoft.com

ORDERING INFORMATION



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