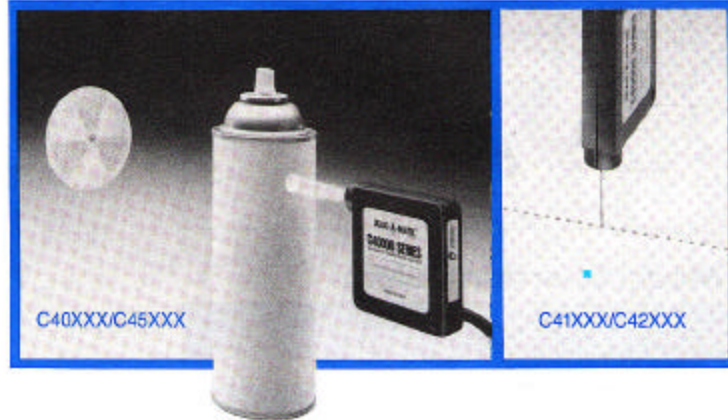


SELF-CONTAINED PHOTOELECTRIC CONTROLS

Modulated Visible Beam Control C40000 Series Square SKAMP®

Features:

- Skanner/amplifier in one package
- Complementary open collector outputs
- Coaxial optical system
- Rugged NEMA 12 cast zinc housing
- Visible red LED light source
- Alignment Indicator
- Two operating frequencies available
- High Speed models available



Description:

The C40000 Series Square Skamps are totally self contained, modulated sensors with a visible red light source and dual complimentary open collector outputs.

These controls are DC powered with 5 VDC or 8 to 28 VDC. The built-in amplifier provides photoelectric sensing and control in one convenient package. The amplifier responds only to the modulated frequency of the LED source, this feature prevents false triggering from high ambient light or other light sources. The skanners can be ordered with either of two modulating frequencies to avoid interference with a nearby skanner.

The dual complimentary open collector transistor outputs will interface easily with programmable controllers and microprocessors as well as direct switching of DC powered devices up to 30 VDC at 100mA max.

The LIGHT energized output transistor will conduct when the proper light signal is reflected back into the sensor. The alignment indicator will also be ON when the skanner sees its reflected light. The DARK energized output transistor conducts when light is not reflected back into the sensor.

Reflective:

Models with one and two inch operating distances are offered. The coaxial optics unlike conventional two lensed optics provide increased flexibility in their operating ranges.

The one inch models detect objects as small as 0.01" over an operating range of $\pm 0.15"$ from its optimum distance of 1.1".

The two inch models detect objects as small as 0.03" over an operating range of $\pm 0.75"$ from its optimum distance of 2.1".

A 15 turn sensitivity pot is provided for precise adjustments of the amplifier's set point. An output indicator is also provided to visually confirm operation of the skanner.

Typical Applications: Reflective

- Inspecting and sorting
- Detecting semiconductor orientation
- Accurate edge and position control
- Small parts handling
- Direct wiring to programmable controllers
- Registration mark sensing
- Broken drill bit detection

Retroreflective:

The visible red light source of the retroreflective model is easily seen when aligned to a retroreflector and the output indicator confirms operation. The coaxial optics permit operation at close or long range without the need to adjust the sensitivity of the unit.

Polarized versions are available to respond only to a retroreflective disc. This feature assures that the skanner will not respond to other reflective materials such as shrink wrap or foil.

Typical Applications: Retroreflective

- Conveyor control
- Box sortation
- Security barriers
- Automated warehouses
- Direct wiring to programmable controllers

C40000 Series

Specifications: (at 25°C)

POWER INPUT 5 VDC \pm 5% or 8-28 VDC, 75 mA max.
OUTPUTS Open collector NPN transistors to switch up to 30 VDC at 100mA max.

RESPONSE TIME Standard: 5 ms typical. Counting rate 100 cps.
High Speed: 0.5 ms typical. Counting rate 1000 cps.

BODY Black die-cast zinc NEMA 12 housing.

OPERATING PARAMETERS

Reflective

Type	Operating Range	Smallest Detectable Object
1"	1" \pm 0.15"	.01"
2"	2" \pm 0.75"	.03"

Retroreflective

Type	Distance to 3" Retro-Disc
Non-Polarized	10 ft.
Polarized	5 ft.

SPECTRAL EMISSION

660nm (red)

TEMPERATURE

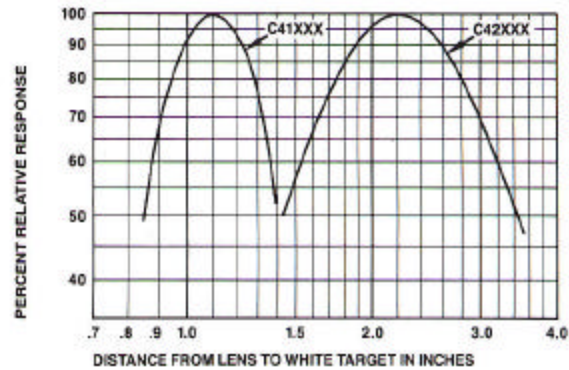
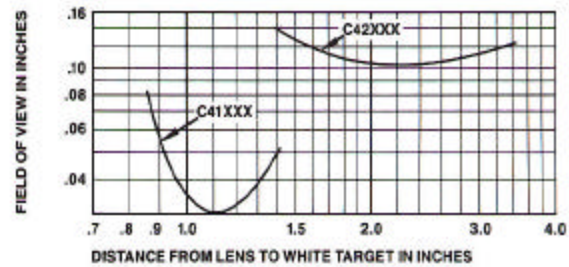
Operating: 0° to 50°C
Storage: -40° to 50°C

LEADS

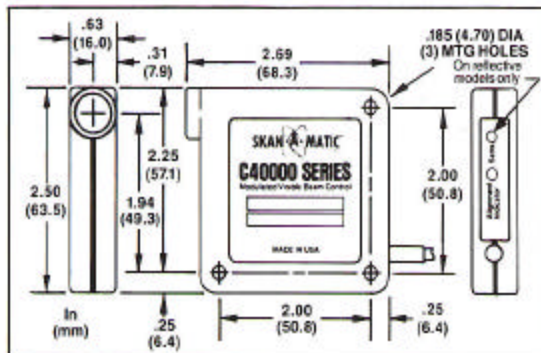
4 cond. 24 ga., PVC covered cable with shield, 6 ft. long, Type I

Typical Performance Chart:

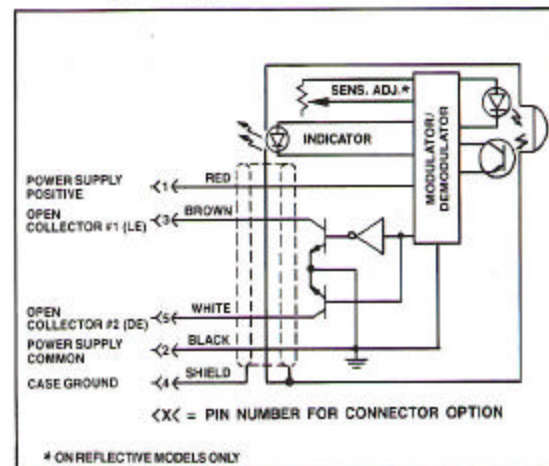
FOR REFLECTIVE MODELS ONLY



Dimensions:



Wiring Diagram:



C40000 Series

Model Selection Guide:

To specify the C40000 Series Modulated Visible Beam Control construct a six digit part number denoting type, input, modulating frequency, and amplifier.

Part #	C	4			
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Type	Use #
1" Reflective	1
2" Reflective	2
10" Retro	0
5" Retro/polarized*	5

Input	Use #
5 VDC	0
8-28 VDC	1

Amplifier	Use #
Standard	0
High Speed	1

Modulating Frequency	Use #
High	0
Low	4

*Not for use with Retro-Tape. Use Retro-Disc only.

Variations:

LEADS

Extra lead lengths available. Use Type I — see pg. 129.

Options:

PROTECTIVE SHEATH

Can be factory installed. Order by adding the suffix as follows:

-S For square locked stainless steel armor, 3/16" O.D. Example: C40100-S

CONNECTOR

The C40000 Series skanners are available with connector installed. The mating half is furnished for field connection. Order by adding a suffix as follows:

-P For connector pair with in-line receptacle. Example: C40100-P

-F For connector pair with flanged, panel-mount receptacle.

Example: C40100-F

See Options for a more detailed description.

ACCESSORY POWER SUPPLY/OUTPUT SWITCH B07186

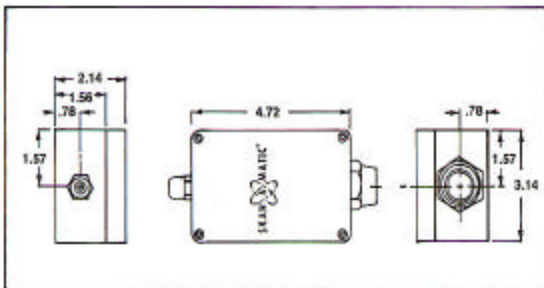
Specifications:

POWER INPUT	115 or 230 VAC \pm 10% 50-400Hz, 1 VA
SKANNER POWER	5 VDC at 100 mA
OUTPUT	Solid State Relay capable of switching 5 to 280 VAC at up to 1 Amp

TEMPERATURE	Operating: -0° to 50°C Storage: -40° to 70°C
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ENCLOSURE	Watertight and corrosive resistant ABS plastic with 1/2" conduit HUB power entrance, and watertight bushing for skanner cable entrance.
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Dimensions:



Wiring Diagram:

