

CONTROLS

Amplifier with Power Supply R40/T40 Series

Features:

- Complete photoelectric control
- Open collector, relay, or solid state relay output
- Output indicator LED
- 15 turn sensitivity adjustment
- Regulated DC power supply
- May be wired LIGHT or DARK energize
- 115 or 230 VAC input

Description:

The R40/T40 Series are complete photoelectric controls, which operate with one reflective skanner or thru-beam pair. Each unit provides light source power, amplifies the photodetector signal, and functions as an output switch. Only standard AC line voltage is



R40/T40
Series

required. The R40 Series has a relay output while the T40 units have transistor or solid state relay output. A red LED output indicator and sensitivity adjustment are provided.

Specifications: (at 25°C)

R40 Series

POWER INPUT	115 or 230 VAC \pm 10%, 50-400 Hz, 2VA
LAMP POWER	5 VDC at 125 mA max. supplied by unit.
LED POWER	125 mA max. Requires external resistor.
SENSOR VOLTAGE	5 VDC supplied by unit
OUTPUT	Relay, SPDT, 5 amp at 115 VAC. 3 amp at 230 VAC or 28 VDC resistive load 100mA minimum load.
Life	100,000 operations at rated load with a cycle rate = 2 second ON/2 seconds OFF. 1 million at 1/5 rated load.
SENSITIVITY ADJUSTMENT	15 turn. External potentiometer may be used. See Using a Remote Potentiometer in <i>Technical Information</i> .
RESPONSE TIME	25 milliseconds max. Counting rate 40 cps.
TEMPERATURE	Operating: 0° to 50°C Storage: -40° to 70°C
ENCLOSURE	11 pin plug-in module. .750" pin circle dia.; black molded plastic case. Socket not included.

T40 Series

Specifications same as R40 except as follows:

OUTPUT

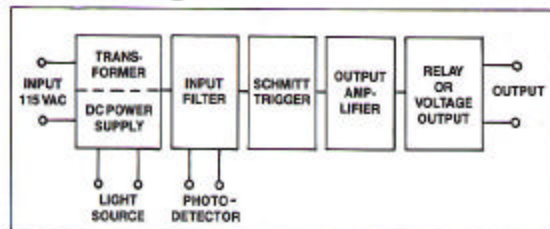
Open Collector	NPN transistor to switch up to 25 VDC at 100 mA max.
Diode Protected Collector	NPN transistor to switch up to 5 VDC at 100 mA max.
Solid State Relay 2.0A	20-240 VAC. Response time 9 milliseconds max. 100 million operations at rated load. Minimum load current of 20mA. 4mA max. leakage current.

RESPONSE TIME

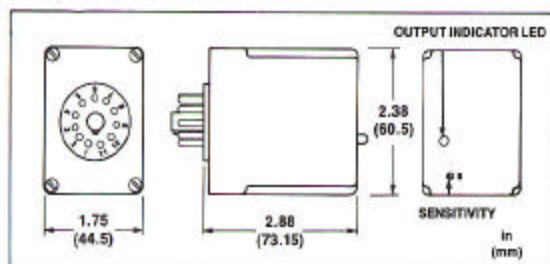
See Standard Amplifier under Response Time Chart in *Technical Information*

R40/T40 Series

Block Diagram:



Dimensions:



Compatibility With Sensors:

These controls are designed to be used with most Skan-A-Matic reflective skanners and thru-beam combinations. When using LED light sources with these controls, a current limiting resistor must be used. This resistor is supplied with each scanner or thru-beam.

Model Selection Guide:

Choice of unit depends on the type of output and the speed of response desired. If a relay output is desired, the R40 Series is suitable. The T40 Series with open collector or diode protected collector output may be used to control DC voltages and give much faster response. The T40 Series with solid state relay may be used where AC is being switched at a high repetition rate. To specify a control, the part number must consist of a type letter and five digits. Select the desired output and construct the number as follows:

Part# 4 0 0 0	
Output Type	Output Option
Relay Output R	5 Amp Relay (R40 only) 1
Open Collector Output . T	Solid State Relay (T40 only) 2
Series	Open Collector (T40 only) 3
	Diode Protected NPN Collector (T40 only) 5

230 VAC models available. Add the suffix "230 VAC" to part number. Example: T40300-230 VAC denotes a control with an open collector output and 230 VAC input.

Accessories:

RELAYS

The T40300 or T40500 control may be used to drive an external relay or solid state relay. The following are available:

R02003 Solid State Relay rated 2.0 amps at 20-140VAC. Life is 10 million operations at rated load.

R00030 DPDT Relay rated 5 amps at 115VAC or 28 VDC resistive load. Life is 100,000 operations at rated load.

R00031 DPDT Relay rated 10 amps at 115VAC or 28VDC resistive load. Life is 25,000 operations at rated load.

All are 8 pin, plug-in modules. Sockets are not included.

Wiring Diagram:

