

THRUBEAMS

Subminiature LED Pair L34/P34 Series

Features:

- Rated Separation: 6 in.
- Beam Diameter: .06 in.
- Smallest Detectable Object: .02 in.
- Glass lens
- Rugged stainless steel body
- Immune to visible ambient light
- Smallest industrial pair



Description:

A small and durable LED thrubeam pair, designed for precise detection in restricted and abusive areas. Specially selected Light Emitting Diodes and photodetectors are mounted in stainless steel bodies and offered as the tiniest industrial pair in the photoelectric sensing market.

The infrared energy from the LED light source can be detected

by the photodetector from as far as 6 inches away and can be modulated to defeat the effects of ambient light. In addition, the filter in the photodetector blocks visible light to the sensor. Solid state components and rugged construction assure the user of trouble-free operation and long life.

Typical Applications:

- Detecting component leads
- Edge control

- Web break
- Wire break

Specifications: (at 25°C)

LIGHT SOURCE—LED

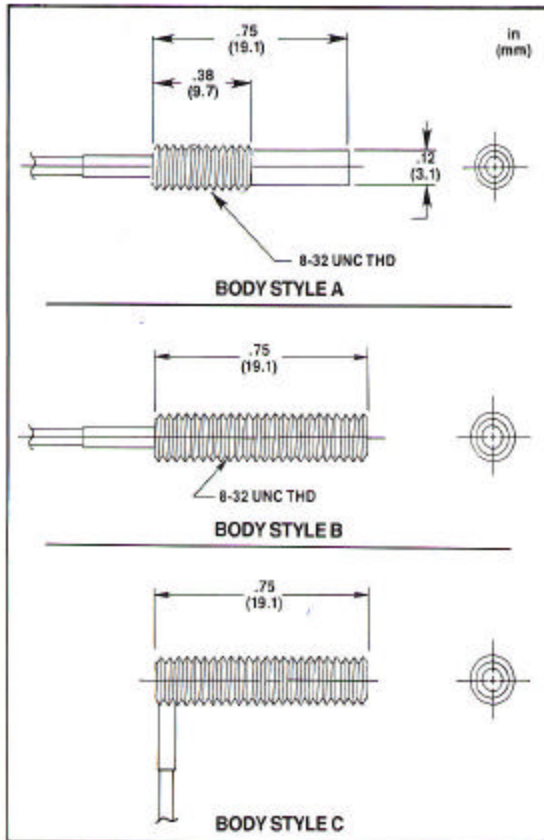
Input	60 mA max. with resultant voltage drop of 1.1 to 1.7 VDC; derate at 1 mA per degree above 25°C ambient
Modulated Input	120 mA max., 50% duty cycle at 1 kHz min.
Reverse Voltage	2 V max.
Spectral Emission	940 nm peak
BODY	Stainless steel
TEMPERATURE	Operating: 0° to 50°C Storage: -40° to 50°C
LEADS	2 cond. 24 AWG., teflon covered cable, 6 ft. long. Type A

PHOTODETECTOR

Operating Voltage	30 VDC max.
Response Time	See Response Time Chart under <i>Technical Information</i>
Spectral Response	910 nm peak; filtered to respond to less than 5% at 750 nm and less than 0.1% at 700 nm
BODY	Stainless steel
TEMPERATURE	Operating 0° to 50°C Storage: -40° to 50°C
LEADS	2 cond. 26 AWG., teflon covered cable with shield, 6 ft. long, Type B

L34/P34 Series

Dimensions:



Compatibility With Controls:

The L34/P34 Series is compatible with all Skan-A-Matic controls. For high speed operation use the T41300 High Speed Amplifier.

The light source utilizes a 60 mA Light Emitting Diode. A 68 ohm, 1/2 W current limiting resistor is supplied and must be used with Skan-A-Matic controls furnishing 5 VDC for light source power. With modulating controls, such as our R42/T42 and R43/T43, a 6.8 ohm, 1/4 W current limiting resistor must be used.

Model Selection Guide:

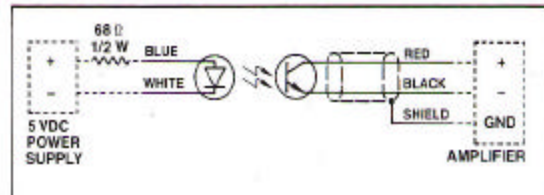
Part #	Body Style	Description
L34024	A	Light Source
P34024	A	Photodetector
L34035	B	Light Source
P34035	B	Photodetector
L34040	C	Light Source
P34040	C	Photodetector

Variations:

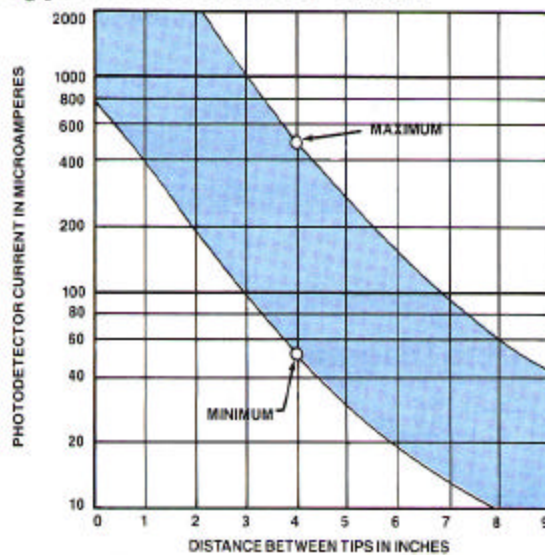
LEADS

Extra lead lengths available. See pg. 129.

Wiring Diagram:



Typical Performance Chart:



Circles indicate guaranteed test limits. See Quality Control under Technical Information, pg. 16.