

## REFLECTIVE SKANNERS

### Subminiature S14/S15/S16 Series

#### Features:

- Smallest Detectable Object: .04 to .05 in.
- Optimum Distance to Target: .07 to .16 in.
- Field of View: .10 to .15 in.
- Maximum Usable Distance: .5 to 3.0 in.
- Side-looking model

#### Description:

The S14, S15, and S16 Series are the smallest incandescent reflective skanners in the Skan-A-Matic product line. The S14 Series offers a side-looking configuration which is useful for many applications where space is restricted or front-looking skanners



cannot be mounted easily. The S15 Series has a threaded barrel housing with a cover glass to protect the lamp and photodetector from contamination. Two models of the S16 include a collimating lens which helps produce a Maximum Usable Distance of 3 inches.

#### Typical Applications:

- Parts inspection
- Reflective sensing in restricted areas
- Tachometer pickup

- Film sprocket hole detection
- General purpose sensing

#### Specifications: (at 25°C)

##### LIGHT SOURCE—LAMP

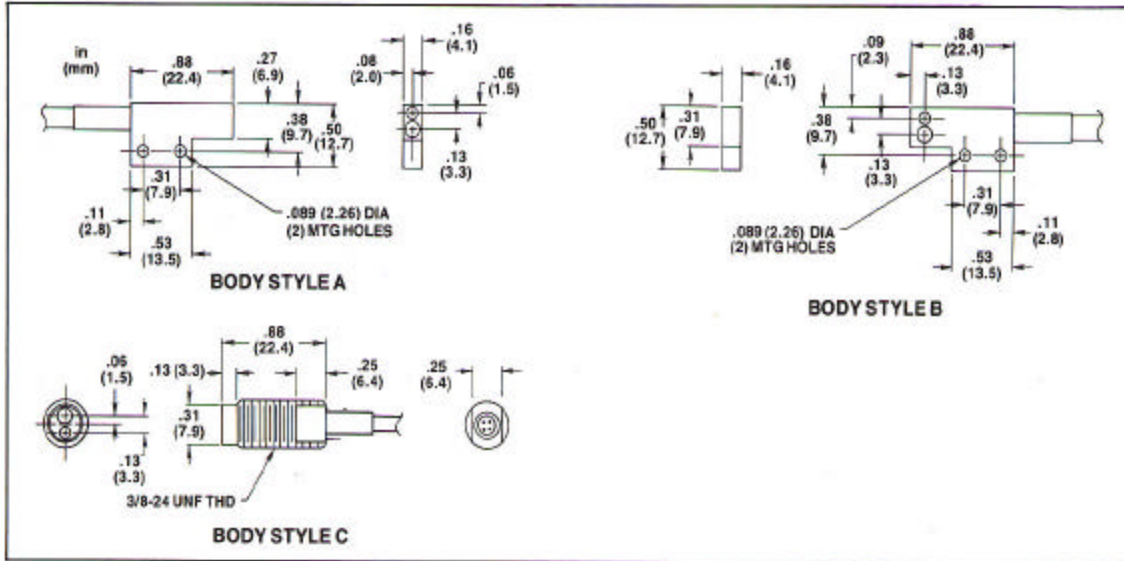
Input 5.0 VDC, 115 mA

##### PHOTODETECTOR

<b>Operating Voltage</b>	20 VDC max.
<b>Response Time</b>	See Response Time Chart under <i>Technical Information</i>
<b>Spectral Response</b>	910 nm peak
<b>FILTER (optional)</b>	Transmits less than 5% at 750 nm and less than 0.1% at 700 nm
<b>BODY</b>	Gold anodized aluminum or passivated brass — see Model Selection Guide
<b>TEMPERATURE</b>	Operating: 0° to 50°C Storage: -40° to 50°C
<b>LEADS</b>	4 cond. 26 AWG., teflon covered cable with shielded photodetector leads and overall shield, 6 ft. long, Type J (Shielded Quad)

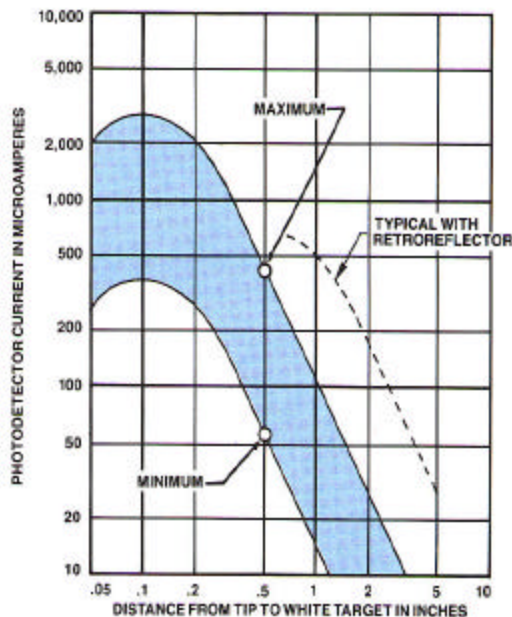
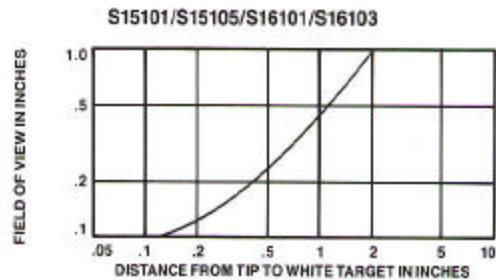
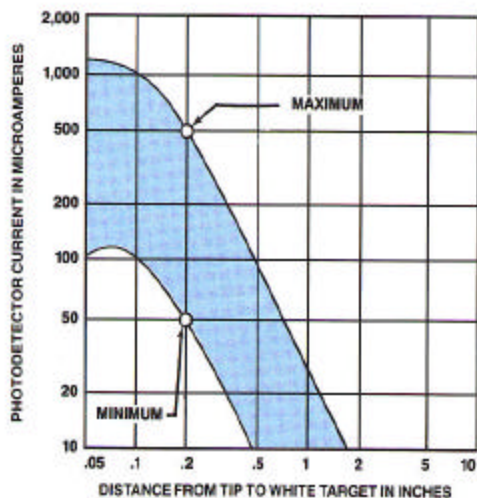
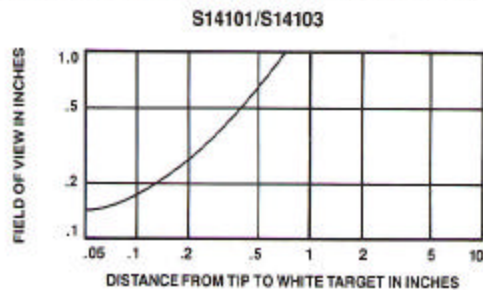
## S14/S15/S16 Series

### Dimensions:

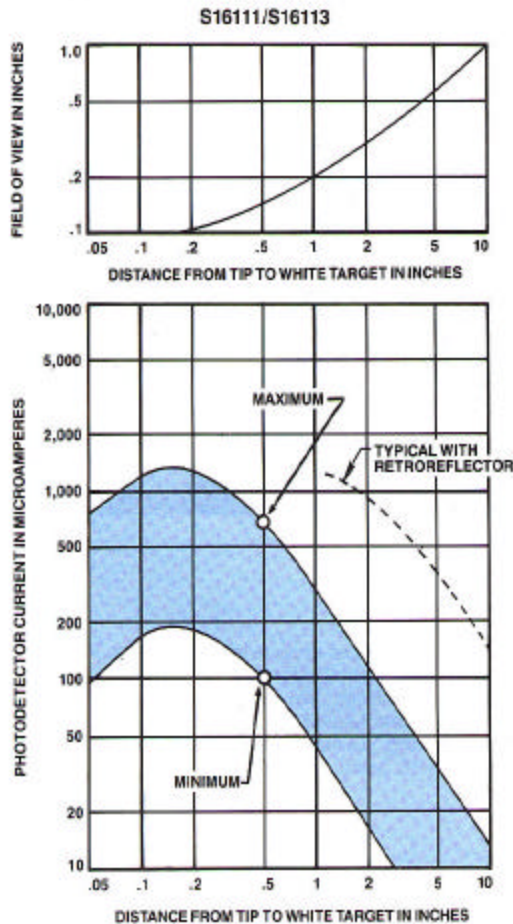


### Typical Performance Chart:

The dashed line shows the typical current with a 7/8" diameter retroreflector. If there is no dashed line, the use of a retroreflector is not recommended. Circles indicate guaranteed test limits. See Quality Control under Technical Information, pg. 16.



## S14/S15/S16 Series



### Variations:

#### LEADS

Extra lead lengths available. See pg. 129.

#### Options:

##### COIL CORD

Four conductor, 28 gauge, coil cord with shield available in 10 ft. (fully extended) or 20 ft. (fully extended) lengths — see pg. 129.

##### CONNECTOR

The S14, S15, and S16 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: S14101-P

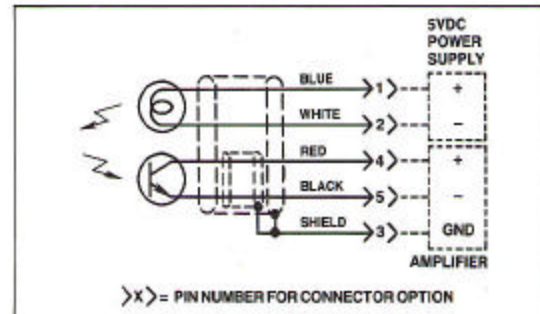
-F For connector pair with flanged, panel-mount receptacle. Example: S14101-F

See *Options* for a more detailed description.

##### RETROREFLECTIVE TAPE and RETROREFLECTIVE DISCS

Available — see *Accessories*.

### Wiring Diagram:



### Compatibility With Controls:

The S14, S15 and S16 Series are compatible with all Skan-A-Matic controls except modulating controls which are used with LED skanners only. For high speed operation use the T41300 High Speed Amplifier.

### Model Selection Guide:

Part#	Smallest Detectable Object	Optimum Distance to Target	Field of View	Maximum Usable Distance	Body	Body Style	Filter
S14101	.050"	.07"	.15"	.4"	Aluminum	B	No
S14103	.050"	.07"	.15"	.4"	Aluminum	B	Yes
S15101	.035"	.10"	.10"	1.2"	Brass	C	No
S15105	.035"	.10"	.10"	1.2"	Brass	C	Yes
S16101	.035"	.10"	.10"	1.2"	Aluminum	A	No
S16103	.035"	.10"	.10"	1.2"	Aluminum	A	Yes
S16111	.035"	.16"	.11"	3.0"	Aluminum	A	No
S16113	.035"	.16"	.11"	3.0"	Aluminum	A	Yes