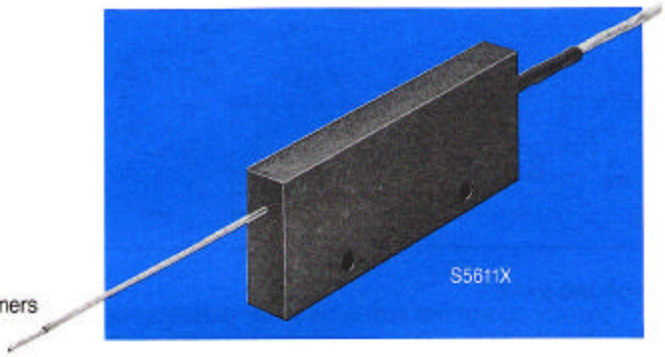
SKAN-A-MATIC®

CLAROSTAT SENSORS AND CONTROLS GROUP

REFLECTIVE SKANNERS
High Speed NANO-SKAN® with Preamp S56 Series



Features:

- Smallest Detectable Object: .007 in.
- Optimum Distance to Target: .010 in.
- Field of View: .020 in.
- Maximum Usable Distance: .070 in.
- Available with snout lengths to 12 in.
- Formable snout
- Works in places normally inaccessible to other skanners
- High temperature tips, operable up to 200°C

Description:

The High Speed Nano-Skan® is a high resolution skanner designed for applications where target size and/or speed of movement are beyond the capability of standard sensors. In addition to the photodiode normally used, a preamplifier is included to boost the signal level, accelerate the response, and convert the output to a more easily used linear voltage.

It should be emphasized that, though a preamp is included, each skanner requires an amplifier to be able to switch a load. Standard Skan-A-Matic current amplifiers may not be used but a special voltage T44000 control is now available for this purpose. This is a complete control which requires only 115VAC input and has a response time of 20 microseconds. This time should be added to the speed of the selected skanner to obtain the response of the skanner/amplifier combination.

Specifications: (at 25°C)

INPUT POWER	See Model Selection Guide
LIGHT SOURCE—LAMP	
Input	5.0 VDC, 115 mA
LIGHT SOURCE—IR LED	
Input	100 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	1 A max., 10% duty cycle at 1 kHz min.
Reverse Voltage	2 V max.
Spectral Emission	940 nm peak
OUTPUT	See Model Selection Guide
SPECTRAL RESPONSE	See Model Selection Guide
RESPONSE SPEED	See Model Selection Guide
BODY	Aluminum/plastic composite
TEMPERATURE	Operating: Body 0° to 50°C Tip −40° to 200°C Storage: −40° to 50°C
LEADS	4 cond. 26 AWG., teflon covered cable with shielded photodetector leads and overall shield, 6 ft. long, Type J (Shielded Quad)

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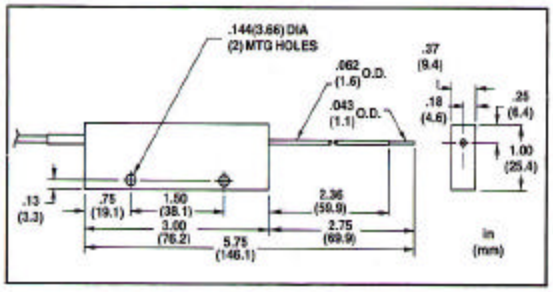
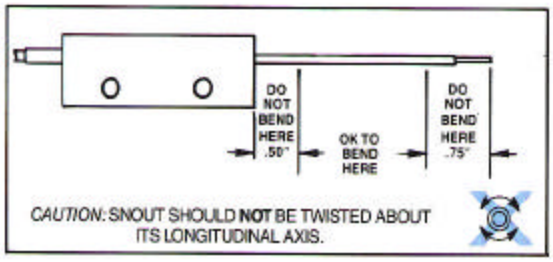
S56 Series

Dimensions:

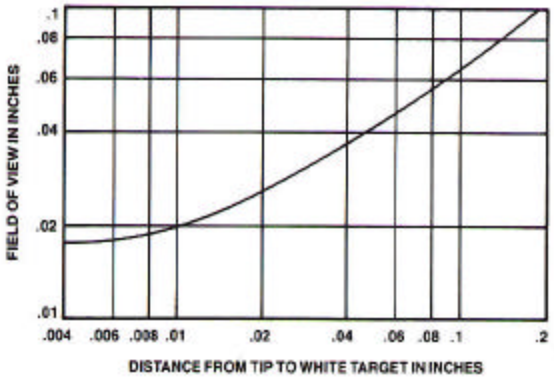


FORMING SNOUT

CAUTION: DO **NOT** USE PLIERS OR SHARP CORNERS FOR FORMING. Use of pliers or sharp corners for forming will destroy units. Bend snout by hand on a pencil or similar cylindrical object that is .25" diameter or larger. The snout is annealed stainless steel and will work harden if bent repeatedly.



Typical Performance Chart:



Model Selection Guide:

SPECIFICATION	SKANNER CATALOG NUMBER			
	S56110	S56111	S56112	S56113
Light Source	Lamp	Lamp	LED	Lamp
Color Filters	No	No	No	Yes
IR Filter	No	No	Yes	No
Input Current				
at +5VDC ±10%	130mA	130mA	50mA	130mA
at −5VDC ±10%	10mA	10mA	10mA	10mA
Output Voltage at Optimum Distance to Target				
Max:	.12V	2.00V	.12V	2.00V
Min:	.03V	.50V	.03V	.50V
Dark Output- Max:	.01V	.03V	.01V	.03V
Spectral Response Peak	800nm	800nm	940nm	600nm
Response Speed	3μsec	20μsec	20μsec	100μsec

Wiring Diagram: