Dual Axis Electrolytic Tilt Sensors
SP5000 and AU6000 Series

SPECTRON
WHEN IT COMES TO MEASURABILITY WE'RE ON THE LEVEL

The SP5000 and **AU6000 Series of Dual Axis Electrolytic Tilt Sensors** afford unparalleled price, performance, quality, and exceptional reliability. These hermetically sealed sensors are produced in an automated environment, resulting in a high level of uniformity from sensor to sensor. Geared towards the OEM marketplace, they feature a PC board mountable design, no moving parts, and a symmetrical pin design which eliminates installation orientation concerns. A variety of models are available to fulfill all applications and budgets.

Applications

Automotive • Industrial • Aerospace • Construction • Medical • Agricultural • Oceanograpic • Geophysical • Architectural • GPS

Specifications

CHARACTERISTICS	MODEL			
	SP 5000-A-000	**SP 5020-A-000**	**SP 5003-A-000**	**AU 6004-A-001**
Total Range (degrees)	+1-45	1/60	+/-20	+/-70
Output (Vdc/arc degree)'	0.13	0.10	0.26	0.11
Resolution (are degrees)	0.02	0.01	0.005	0.05
Repeatability (are degrees)	0.04	0.03	0.02	0.20
Symmetry @ 1/2 Scale (%)	5	5	5	50
Linearity % @ 1/4 Scale	0.8	0.6	0.2	5
Linearity % @ 1/2 Scale	3	4	1	15
Null Impedance (Kohms)				
+25 degC	3.4	2.2	3.1	3.0
+80 degC	1.7	5.1	1.6	5.1
40 degC	13.0	7.8	11.0	50.0
Settling Time (mSec)				
+25 degC	160	240	270	2300
+80 degC	160	240	350	100
-40 degC	250	2/0	210	4000
Null Stability, 12 hrs @25 deg.C (are deg's typ.)	0.04	0.04	0.03	0.10
Cross Coupling (degrees)				
15 degrees	0.7	1.3	1.3	1.3
30 degrees	1.6	2.7	2.0	3.0
45 degrees	2.9	4.5	5.9	6.0
Bore Sight Error (degrees)	3.0	3.0	3.0	
Temperature Range (degrees C)				
Operating	+80 to -40	+80 to -40	*80 to -40	*50 to -20
Storage	+125 to-55	+125 to -55	+125 to -55	+90 to -40
Temp Coefficient of Null (are seconds/degC)	20	20	10	20
Temp. coefficient of Scale (%/deg.C. typ.)	0.10	0.06	0.10	0.05

** = Output levels derived using MUPI-2 Signal Conditioner.*

Spectron Glass and Electronics Inc. | 90 Adams Avenue Ste. A, Hauppauge, NY 11788 | Phone: 631 582-5600 | Fax: 631 582-5671
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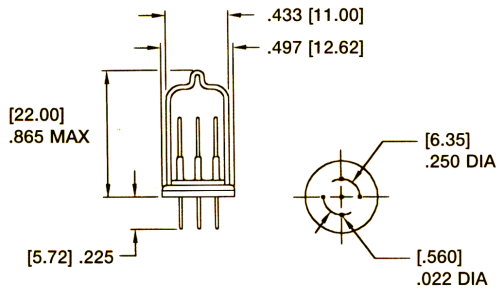
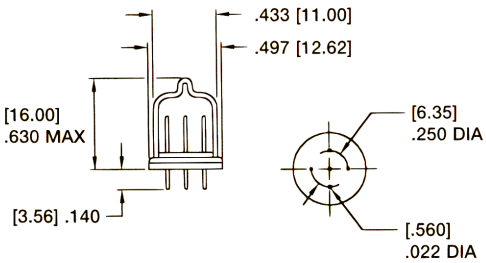
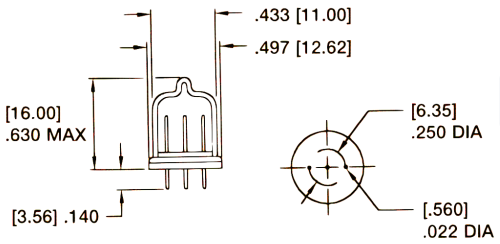
Dimensions in inches (mm)



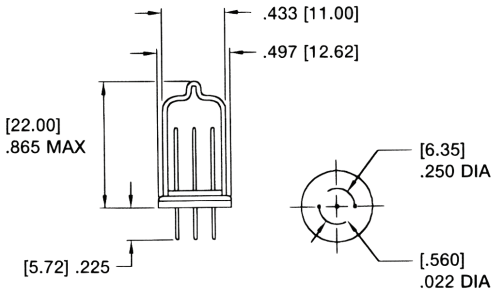
SP 5000
SP 5010



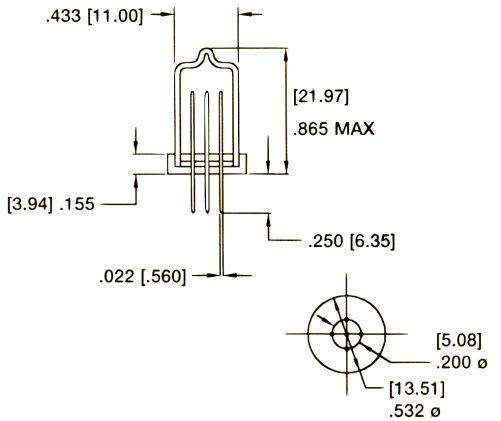
SP 5003
SP 5004
SP 5006



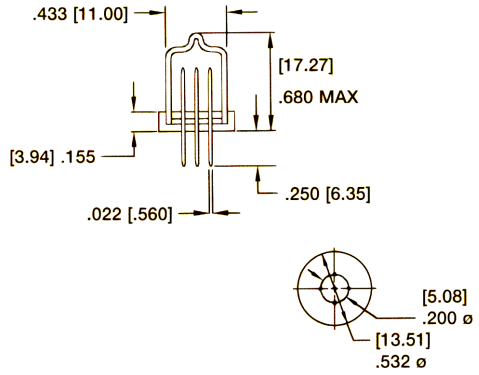
SP 5005



SP 5030
SP 5020



AU 6000



AU 6004

Note: The electrolyte used in these sensors is an Alcohol based fluid, contains no heavy metals, and is non-corrosive. The conductivity and viscosity can be custom tailored to satisfy widely varied applications.

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