

**SYDOR EP-A3P Electronics Module**



Sydor Instruments' EP-A3P Electronics Module is a full readout and control system designed to work with the Sydor Diamond Monitors. The module is capable of providing feedback on the X-ray beam position, the beam intensity as well as provides fast feedback control on peripheral beamline components.

PERFORMANCE PARAMETERS	SYDOR EP-A3P ELECTRONICS MODULE
Readout	Internal electrometer module
Readout Channels	4
Current Measuring Range	10 nA to 250 mA
Gain Select	5 programmable gains: (10 nA – 1 $\mu$ A, 0.5 $\mu$ A – 10 $\mu$ A, 5 $\mu$ A – 100 $\mu$ A, 50 $\mu$ A – 2 mA, 1 mA – 250 mA)
Data Rate	378 ksamples/s max
Resolution Bits	20
Bias Voltage Output	-48 V to +48 V (internal) -48 V to +48 V (external)
Bias Voltage RMS	TBD (< 100 mV @ 50 V)
Current Polarity	Bipolar
<b>DATA COMMUNICATION AND CONNECTORS</b>	
I/O Signal	Embedded event receiver Programmable data rate throughput and gating
I/O Control Ports	1 Ethernet 6 SFP 4 DAC LEMO Outputs (0-10 VDC) *2 LVDS LEMO Input *2 LVDS LEMO Output *1 USB
Control Interface	10/100/1000 Ethernet TCP/IP, UDP
Bias Output/ADC Clock Connector	LEMO
Electrometer Input/Bias Output Connectors	Triaxial
<b>FEATURES</b>	
X, Y, Z Correction and Stabilization	Yes
I <sub>0</sub> Stabilization	Yes
EPICS IOC	Yes
Time Stamping	Yes
Firmware Remote Update	Yes
OS	Linux
Status Indicators	4 LEDs
<b>PHYSICAL DATA</b>	
Enclosure	19" 2-U Rack Mount

\*Available for custom applications  
Specifications subject to change at any time