A6510 and A6510-T

The A6510 sensor input card connects the field sensor instrumentation to the A6560R prediction processor card in an AMS 6500 Prediction system. The A6510-T connects the sensor instrumentation to a transient A6560RT processor in an AMS 6500 transient system.

A6510 Analog Sensor Inputs	
Dynamic Analog Channels	12 Dynamic RMS Inputs
Dynamic Voltage Input	±24V AC + DC Max. / ±Ranges; 0.5, 1, 5, 10 & 24 Vpk
Dynamic Voltage Input Impedance	1 MΩ (differential)
Dynamic Voltage Input Sensor Examples	Eddy Current Sensors (-24V power available), Other Dynamic Position Sensors; 4-20ma, Basis Weight, Pressure, Temperature, ... plus DC Process
Sensor Power/ Impedance	4ma at 22V / 500 KΩ (single ended)
Sensor Power Sensor Examples	Piezo Accelerometer, Piezo Velocity Sensor, Dynamic Pressure Sensor
Dynamic Channel Scan	2 Paired Channels Simultaneous
Bandwidth	0.2Hz to 40kHz
AC Coupling Corner Frequency	0.5Hz
RMS Channel Accuracy	1% at full span 30Hz to 40kHz 2.5% at full span 20Hz to 40kHz 5% at full span 10Hz to 40kHz
Analog Integration	Single per channel; either acceleration to velocity or velocity to displacement
Analog Integrator Accuracy	2% frequency and amplitude
RMS to DC Converter	Single per Channel; 1Hz to 40kHz
A6510 Analog Outputs	ChX, ChY, RMS, DC/Process
A6510 Tachometer Inputs	
Tachometer Channels	2 Inputs from 0.1-2kHz, or adaptive to 60kHz divided to ≤2kHz, ±0.5V to ±24V, ±24V CM
Tachometer Input Impedance	1 MΩ (differential)
Tachometer Modes	Volt Compare, Auto-Adaptive, N Divide
Tachometer Frequency Accuracy	0.1%
Tachometer Resolution	0.002Hz (0.12 CPM) @ 60Hz
Tachometer Sensor Examples	Eddy Current, TTL, Passive Magnet
Tachometer Pulse Characteristic	1 pulse per revolution, min. 500µs width, Tach divider on card

A6510 INCLUDES:

- Twelve analog input channels
- Two tachometer channels
- Two relay channels

A6510-T INCLUDES:

- A6510
- Transient daughter board
- Simultaneous data capture all transient channels

A6510 Relay Inputs/Outputs	
Relay Channels	2 Inputs or Outputs SPDT 24V @ 0.5A dry contact
Relay Type	Non-Latching (Auto Reset) set 0 to10s time delay for 2 sensor voting logic
Relay Response Time	50µs to 50ms
Relay Digital Input High Voltage	5VDC to -24VDC / 10ma at 24VDC
Relay Digital Input Low Voltage	<3V DC
Relay Input Impedance	1 MΩ (differential)
Relay Mode per channel	Input or Output, dip switch selectable
Relay Application	Enunciation, Notification and to enable Event Based Monitoring
Rack Health Relay	One for power loss or rack reboot, SPDT 24VDC @ 0.5A DC Dry Contact
A6510-T Transient – Digital Condition Recorder (DCR)	
DCR Analog Channels	12 Dynamic Peak Inputs
DCR Fmax	2kHz
DCR Tachometer Channels	2
DCR Channel Scan	All channels simultaneous
A6510 Or A6510-T Enviromental	
Operating Temperature	-20˚C to 60˚C (-4˚F to 140˚F) active cool above 49˚C (120˚F)
Relative Humidity	5 to 95% non-condensing
Vibration IEC60068-2-6	5g @ 57 to 500Hz, 3 axes, operating
Shock IEC60068-2-27	30g @ 11ms, 3 axes, operating
Shock IEC60068-2-27	50g @ 8ms, 3 axes, non-operating
Conformal Coated	IPC-A-610E
EU Directive Conformity	RoHS, REACH

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