

The system consists of a 4-channel bipolar pico-to-milliammeter designed for simultaneous current readout of silicon carbide detectors and beamline diagnostic devices.

The instrument provides four independent current input channels, selectable current ranges from picoampere-level sensitivity up to milliampere-level signals, integrated bipolar voltage bias, Ethernet TCP-IP communication, configurable trigger input/output and compatibility with EPICS/Python-based control environments.

The device is suitable for real-time acquisition of beam-induced currents from SiC I_0 monitors, X-ray beam position monitors and other multi-channel detector systems used in synchrotron radiation beamlines and laboratory X-ray instrumentation.