LisMON-331 Integrated Monitor Control Unit

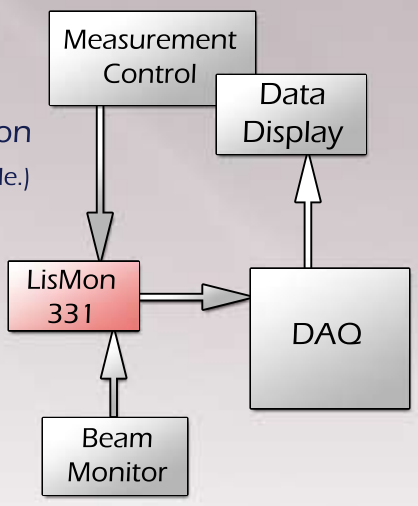
The role of the Monitor Control Unit in neutron scattering measurements is to count monitor signals generated by a dedicated Beam Monitor Detector. The beam monitor generates signals with a frequency proportional to the flux of the neutron beam thus ensuring tight control over the neutron counts of each measurement.

The LisMON-331 Monitor Control Unit can be programmed to schedule measurements based on preset monitor counts (programmable per measurement), timeout periods or both.

Depending on the measurement type and the functionality of the other Data Acquisition hardware the units can function in up to three distinct modes and even combinations of these modes can be used in a single measurement setup.

In Start/Stop mode - for List Mode Data Acquisition – the LisMON-331 unit generates Start signal impulse at the beginning of measurement and Stop impulse at the end. These impulses are fed to the Data Acquisition unit which inserts the Start and Stop events into the generated event list. This leaves free more possibilities for the in-depth evaluation of the List Mode data.

In Inhibit mode the LisMON-331 unit controls Data Acquisition with Inhibit signal (note that the inverse of the Inhibit signal is also available.) This mode of operation is customary for controlling legacy Data Acquisition hardware.



The Monitor Count mode of the LisMON-331 unit allows List Mode operation to monitor the time dependency of neutron flux for the entire duration of a measurement. In this mode beside the Start and Stop signals each monitor count event can be inserted into the List Mode data.