

NETWORK I/O MODULE



DIGITAL AND ANALOGUE
OUTPUT
CENTRALISED ALARM FACILITY
EXTENDED COMMUNICATIONS
OPERATIONAL SHUT DOWN
FACILITIES

The network input/output module provides both digital and analogue output signals from the Lab Impex Systems 9205 EMS data and alarm management system. The I/O module has the capacity to provide 6 digital two pole relay contacts, 2 analogue outputs, 4 analogue inputs and a RJ45 ethernet connection.

THEORY OF OPERATION

The 9205 EMS alarm and data management system is a software solution for networking and controlling a variety of monitoring stations including the CMS Gamma, CMS Noble Gas, CMS 2000 (Alpha and Beta particulate) and SmartCAM AB+.

An ethernet connection between the 9205 EMS host computer and the network I/O board allows alarm and data signal outputs to be provided both from the original monitoring station and the 9205 EMS host computer. An alarm

corresponding to any individual monitoring station is therefore also detectable in a customer specified centralised location, providing quick response time to alarm situations even if you are not in the monitored area.

Lab Impex Systems understand the need for flexibility when designing a radiation network system, as many factors control the decisions of each individual facility. For this very reason the network I/O board can be configured to provide a variety of functions from the optional outputs:

- 6 digital 2 pole relay contacts
- 2 analogue outputs
- 4 analogue inputs

EXAMPLE SYSTEM

The network I/O can provide an important role in ensuring there are no dangerous stack discharges during the operation of a PET cyclotron facility.

The stack is monitored using the Lab Impex Systems CMS PET monitoring station, providing information on stack flow and concentration of radioactive PET gases. The information is then relayed to the 9205 EMS alarm and data management system.

Should the level of gas concentration exceed a pre-set threshold, the 9205 EMS will activate the network I/O digital relay, which in turn could be used to control ventilation dampers to isolate the source of the release.