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The LHCb Calorimeter Detectors

Calorimeter detectors of the LHCb experiment consisting of Single Particle Detector (SPD), Pre-Shower Detector (PRS) followed by the "shashlyk" type Electromagnetic Calorimeter (ECAL) and the Hadron Calorimeter (HCAL) are described. The SPD and PRS consist of about 6000 channel scintillating counters each with long transparent fibers readout on to Multi-anode photomultipliers. The ECAL and HCAL amount to about 6000 and 1500 channels respectively, with high voltage power supplies of Cockcroft-Walton type that can be individually controlled by computer. An emphasis is made on the construction details, preassembly tests and performance studies of the detectors, both with cosmic particles and with the SPS test beam at CERN. Various detector quality checks at different stages are described and results are presented. Detectors have been installed and presently under commissioning, using embedded light emitting diodes as well as a radioactive source scan.

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