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# Bulk Micromegas detectors for large TPC applications

A large volume TPC will be used in the near future for a variety of experiments, including T2K and probably the Linear Collider detector. The “bulk”Micromegas detector is a novel Micromegas construction technique particularly suited for building compact and robust low mass detectors. The capability to pave a large surface with a simple mechanical solution and negligible dead space between modules is of particular interest for these applications, offering a simple and cheap alternative to wire chambers. We have built and tested two large “bulk”Micromegas detectors (26x27cm 2, 8x8mm 2 pads, 1020 channels) in the HARP field cage setup at CERN with magnetic field up to 0.4 T. Cosmic ray data have been acquired in a variety of experimental conditions. We present the excellent detector performances, especially with an Ar-iC4H10-CF4 gas mixture, with gains in excess of 10000, space point resolution of 600 microns at 1 m drift, and dE/dx resolution of 12 %. We discuss future developments towards a large area, low cost Micromegas solution for industrial production. Improvements on the space point resolution with the use of a resistive anode are also discussed.

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