

CERN

EP-ELECTRONICS
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CRATE ENCODER, TYPES 7236 and 7236A

TECHNICAL SPECIFICATIONS

The Crate Encoder (CE) is designed to read-out data from receiver-memory-hybrid modules (RMH), types 4236¹⁾ and 4248²⁾, or from Plessey modules, types DR32-023³⁾. A functional block diagram is given in Fig. 1. It is housed in a special crate, RMH-crate⁴⁾, type 199. It occupies stations 23 and 24. Only RMH containing data are addressed and transfer their data pattern (Fig. 2) via the dataway to CE. CE completes these data patterns with the encoded station address and crate address to the format used on the branch - vertical dataway - (Fig. 3). A general description of the read-out system can be found in ref. 5.

The enabling of data transfer onto the branch is accomplished by the presence of the enable input signal (EI) on the branch input (BI) connector. If all RMHs (stations) containing data have transferred their pattern, the enable output signal (EO) arrives at the branch output (BO) connector, disables the present active CE and enables the next CE in the branch (EO is connected to EI of the next CE via the branch cable).

The data pattern - containing hit wires, upper half and flag bit (pulses) - is accompanied by a strobe signal; station address and crate address are stable before the data pulses are sent. Data transfer on the branch is controlled by the system encoder module (SE)⁵⁾, type 158. A front panel switch (ON-line) enables the data transfer from the CE onto the branch (7236A only).

