"FastSort" Option

"Fast Sort" - the ultra fast single frequency sorting mode with automatic signal reversal point evaluation

As all kinds of sorting applications, the „Fast Sort“ Mode can be used for determination of material properties and/or geometric variations. In contrast to those other sorting application the „Fast Sort“ Mode does not require any external or time shifted trigger signals nor any mechanical stopper keeping the parts in a certain position during evaluation. The „Fast Sort“ Mode activates itself by detecting any incoming part using a simple signal threshold. Once activated, it looks for the reversal point of the test signal, which corresponds to the optimal centering of the part under or in the sensor. After the signal falls back below the part detection threshold (which has a certain hysteresis to avoid miss-detections) the result is processed and the part is counted.

Using this approach opens a great variety of applications as there is no external synchronization needed and the parts can be processed as fast as the handling system can operate. The only restriction for the „Fast Sort“ Mode is, that the parts are sufficiently separated to each other to get a assured detection of each part.
Technical specifications:

- Test frequency range: 10 Hz - 12 MHz
- Test speed: Up to 200 parts per second
- Part speed: The potential test speed of the unit is only limited by the mechanical implementation
- Part detection: Automatically via turning point determination
- Number of part detection gates: 2 (1 + hysteresis threshold to prevent double-detection)

Number of evaluation thresholds: 4

- Evaluation thresholds: Circle, box, flat circle, X, Y, horizontal, vertical
- Setting of part detection gates: Manual
- Setting of evaluation thresholds: Manual
- Evaluation outputs: 4 on the channel module or via IO card (24 V parallel or fieldbus)

Order numbers:
- Option “FastSort”, Order-Nr. BMSZ13R00030
- Crack detection module CHM500, Order-Nr. BMZ13R00000

Prerequisites for the „FastSort“ operating mode
The FastSort operating mode requires either an ELOTEST IS500 or an ELOTEST PL500 (Firmware 2.1 or higher) with at least one CHM500 crack detection module and an encircling test coil in self-comparison, or a set of encircling test coils in external comparison with an ASS adapter or a probe.

Installation of the „FastSort“ option
If the „FastSort“ option is part of the initial order of a unit, it will be enabled in the factory before delivery. It is also possible to retrofit the „FastSort“ option later on. To do this, the device firmware must be brought up to the firmware level 2.1.670 or newer. Then the license file associated with the unit can be transferred to the device using a USB stick.