

Your Entry into the ibg Technology:

**eddysort<sup>®</sup>**



Structure Test with eddysort<sup>®</sup>:  
The ultimate single-frequency sorting test

- Automatic selection of optimum test frequency
- Automatic freak recognition
- Automatic generation of tolerance fields
- Easy to operate, even by semi-skilled personnel
- High-speed testing within milliseconds
- Maximum stability with automatic self-calibration

The **eddysort**<sup>®</sup> is an eddy current instrument designed for testing material mix, heat treatment (hardness, case depth, temper, etc.), sinter density and structure variations.

The **eddysort**<sup>®</sup>'s principle of operation is based on the classic single-frequency method and it is especially designed for versatility in a production line.

Operation is supported by a complete on-board computer and user-friendly software to simplify and speed up calibration and sort procedures. Use of leading edge electronic techniques allows extremely short testing times.

The **eddysort**<sup>®</sup> is available in different case options. Using an opto-interface the instrument can be integrated in automatic test processes. For universal use the instrument is equipped with standard features such as displays and interfaces.

#### The ultimate single-frequency method:

During calibration of the **eddysort**<sup>®</sup>, OK parts are tested over a broad frequency band (1:1000 – 1:3000). A typical impedance curve develops. Like a fingerprint it reflects various material characteristics, e. g. alloy and structure, as well as scattering of the presented OK parts.

For automatic selection of the optimum test frequency material data of NOK parts with different material structures must be recorded. The integrated software compares eddy current characteristics of all parts and automatically suggests the optimum test frequency. Due to easiest operation the **eddysort**<sup>®</sup> quickly proceeds from calibration to sorting mode.

#### Sorting:

The test parts are sorted into „OK“ and „NOK“. Test results are displayed by green or red sort indicator lamps and the sorting decision is available at the optically isolated interface.

After each test the integrated statistical evaluation is updated with numerical and percentage information.

#### Data Storage:

Up to 6 instrument set-ups can be stored for future access.

Each set-up can also be stored externally in a so-called „Memory Plug“. The Memory Plug is simply plugged in the front panel and thus allows transmission of a set-up to other **eddysort**<sup>®</sup> units.

#### Documentation and Data Transfer:

The **eddysort**<sup>®</sup> is equipped with a Centronics interface for communication with external printers.

An integrated RS232/V24 interface permits communication with separate main-frame computers to perform statistical analysis (SPC) of accumulated data.

#### Optically isolated Interface:

The standard opto-interface permits input of external control signals to the **eddysort**<sup>®</sup> and transfer of sorting decisions to peripheral accessories. (Examples: test initiation via light barrier, transfer of test decision to sorting gate, visual and/or acoustic alarm signals)

#### Coils and Probes:

Suitable coils and probes are available for all applications. Besides the wide range of standard accessories, special coils for all frequency ranges and dimensions can be made to meet customer's specification.

#### Case Options:

The **eddysort**<sup>®</sup> is available either in the desktop version (P/N 84200) or rack mount housing (P/N 84210).

#### Technical Data:

Test method:	Single-frequency testing with automatic selection of optimum test frequency (1 out of 24)
Test frequency range:	5 Hz – 300 kHz
Test Time:	8 ms (min.)
Display:	LCD-Display 24 mm x 74 mm, background lighting
Microprocessor:	16 bit $\mu$ P for maximum test speed
Standard Interfaces:	Centronics printer interface for documentation RS232/V24 computer interface Opto-interface for system integration (PLC)
Mains connection voltage:	85 – 240 V AC, 50/60 Hz
Power requirement:	50 VA
Dimensions:	B 257 mm x H 147 mm x T 262 mm (desktop version)
Weight:	5 kg

(Technical data are subject to change without prior notice)



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