Sets the Standard for Laboratory and Production:

eddyliner®P

Structure Test with eddyliner®P: Preventive multi-frequency test with simple operation

- Only OK parts required for calibration
- Preventive multi-frequency testing with 8 frequencies
- Automatic generation of all 8 tolerance zones
- Convenient display of all test results
- Easy to operate, even by semi-skilled personnel
- High-speed testing within milliseconds
- Maximum stability due to automatic calibration
- Maximum test reliability to find unexpected defects

ibg
Zerstörungsfreie Werkstoffprüfung

The **eddyliner®P** is an eddy current instrument de-signed for testing material mix, heat treatment (hard-ness, case depth, temper, etc.), sinter density and structure differences.

The **eddyliner®P** is specifically designed for versatility in production line or laboratory use and its principle of operation is based on ibg's preventive multi-frequency testing (PMFT). Thus it provides a far greater degree of reliability than single-frequency eddy current instruments.

Operation is supported by a user friendly complete onboard computer to simplify and speed up calibration and sort procedures. Use of leading edge electronic techniques allows extremely short testing times despite multi-frequency scanning.

The **eddyliner®P** is available in different case options. Using an opto-isolated interface the instrument can be integrated in automatic test processes. As a standard feature it is completely equipped with all displays and interfaces for universal use.

Preventive Multi-Frequency Method:

Only OK parts are required for calibrating the **eddyliner®P**. During calibration known reference parts are tested over a broad frequency band (1:1000 bis 1:3000) with up to 8 frequencies. Subsequently a typical impedence curve develops. Like a fingerprint it reflects the different characteristics of material like alloy, structure and scattering of the known OK parts.

Due to very easy operation the **eddyliner®P** can quickly be brought into the test mode. Testing is also carried out with 8 frequencies. OK decisions are only reached if all and every criteria of the test part correspond to the known data. Thus unexpected deviations are recognized and sorted out. Test reliability is significantly higher compared with single-frequency testing.

Test Routine:

Test result is either „OK“ or „NOK“. It is shown by a green or red indicator lamp and transmitted to the outside by an optoelectronic interface.

After each test the measured values are statistically updated with numerical and percentage information.

Data Storage:

Up to 16 possible frequency band combinations may be selected for calibration purposes. Moreover, 50 complete set-ups can be stored for future access.

Every test set-up can be stored on a so called external „Memory Plug“. The „Memory Plug“ is simply plugged in at the front panel and thus makes transmission of one test set-up to other **eddyliner®P** units possible.

Documentation and Data Transfer:

The **eddyliner®P** is equipped with a standard Centronics interface for communication with external printers to provide hardcopy print-outs of test results.

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

Opto-isolated Interface:

With the standard opto-interface external control signals can be transferred to the **eddyliner®P** and sorting decisions can be transmitted to peripheral accessories. (Examples: test initiation via light barrier, transfer of sorting decision to gate mechanism, optical and/or acoustic alarm signal)

Coils and Probes:

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

Case Options:

The **eddyliner®P** is available in the desktop version (P/N 84001-B) or rack mount housing (P/N 84011-B).

Technical Data:

Test Routine:	Preventive Multi-Frequency Testing with up to 8 test frequencies
Test Frequency Range:	5 Hz – 300 kHz
Test Time:	8 ms/frequency (min.)
Display:	LCD-Display 125 mm x 77 mm, background lighting brightness and contrast adjustable
Microprocessor:	2 x 16 bit CPU 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:	W 364 mm x H 147 mm x D 262 mm (desktop version)
Weight:	7 kg

(Technical data are subject to change without prior notice)

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