



INNOVATIVE MEASUREMENT TECHNOLOGY

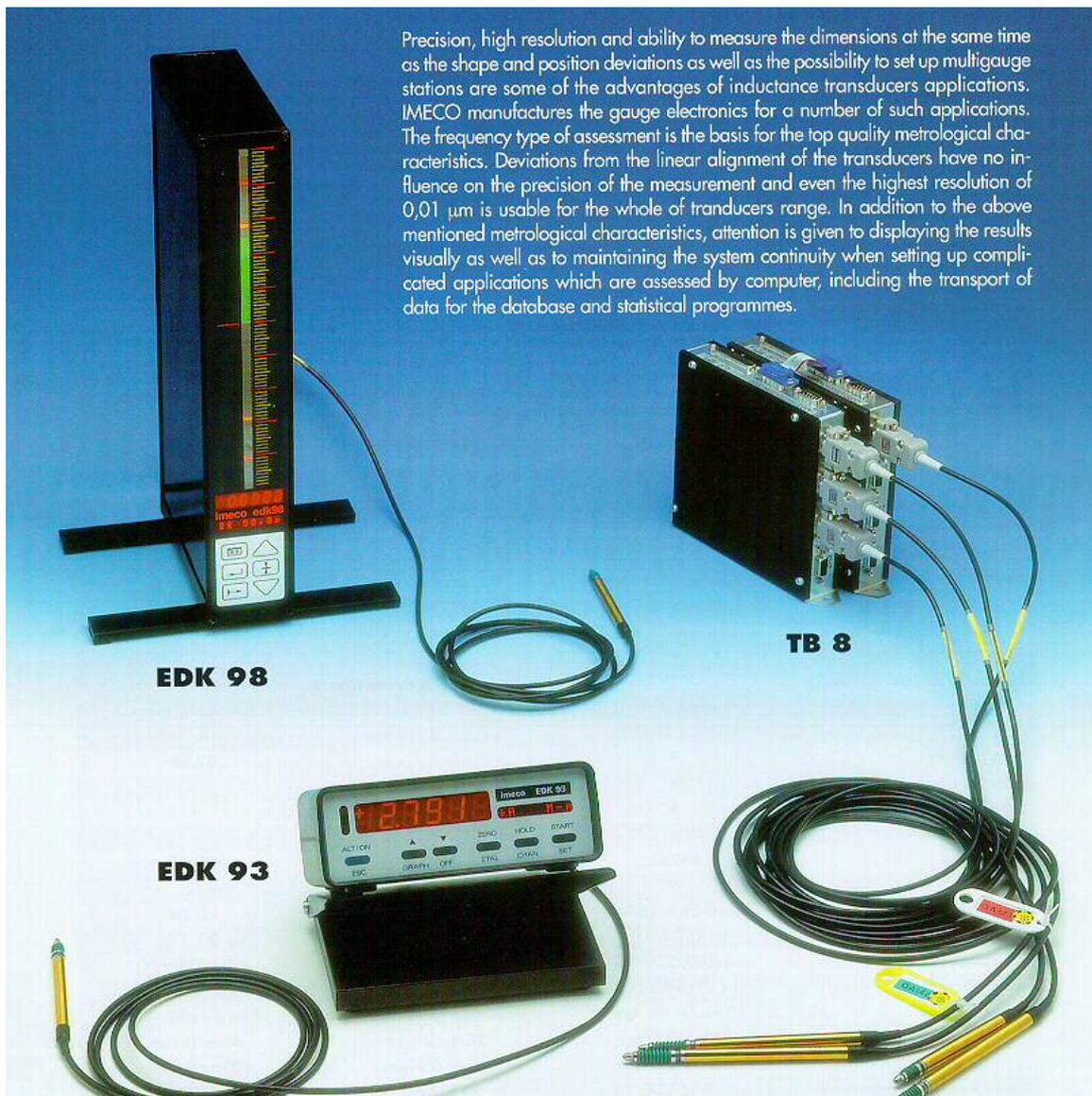
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Transducer Electronics Digital

- ❑ **Very High Accuracy Systems**
- ❑ **Resolution to 0.01 μ m**
- ❑ **System Linearity to 0.01%**
- ❑ **Input/output lines for control**
- ❑ **Visual and Electronic Limits**
- ❑ **Computer Controlled/Stand alone**
- ❑ **Data Memory**



Precision, high resolution and ability to measure the dimensions at the same time as the shape and position deviations as well as the possibility to set up multigauge stations are some of the advantages of inductance transducers applications. IMECO manufactures the gauge electronics for a number of such applications. The frequency type of assessment is the basis for the top quality metrological characteristics. Deviations from the linear alignment of the transducers have no influence on the precision of the measurement and even the highest resolution of 0,01 μ m is usable for the whole of transducers range. In addition to the above mentioned metrological characteristics, attention is given to displaying the results visually as well as to maintaining the system continuity when setting up complicated applications which are assessed by computer, including the transport of data for the database and statistical programmes.

EDK 98

TB 8

EDK 93

Specification

	EDK 93	EDK 98	TB8
Type of Transducer	half bridge/LVDT	half bridge/LVDT	half bridge/LVDT
Number of Inputs	4	2	8 each TB8 Module
Input Auto Detection	*	*	*
Analogue Indicator	x	*	x
Numeric Display	5½ digit, 14mm	5½ digit, 8mm	x
Channel Polarity Selection	*	*	x
Tolerance Limits	*	*	x
Number of Ranges	1	13+	x
Ranges	Transducer Range	±1,2.5,5,10,25,50,100, ±500um. 1,2.5,5,10mm	Transducer Range
Data Memory	*	*	32kb
Avg, Max, Min, M-m Functions	*	*	x
Reset/Shift	*	*	x
Memory Data Shift	*	*	x
Data Output	RS232	RS232	RS485
Input / Output Lines	6	6	12
Error (20deg.C)	<0.3% + 1LSB	<0.3% + 1LSB	<0.3%
Resolution (µm)	1 / 0.1 / 0.01	1 / 0.1 / 0.01	1 / 0.1 / 0.01
Zero Drift	< ±0.005% / °C	< ±0.005% / °C	< ±0.005% / °C
Sensitivity Drift	< ±0.01% / °C	< ±0.01% / °C	< ±0.01% / °C
Power Supply	8-15vdc	230vac	12vdc
Battery Pack Option	*	x	x
Working Temperature	5 - 45 °C	5 - 45 °C	5 - 50 °C
Dimensions	154 x 57 x 98mm	60 x 375 x 170mm	155 x 155 x 30mm

EDK 93

Multi-function numeric indication for measurement based on 1-4 transducers. The data collected from the individual transducers can be combined into an aggregate variable or assessed individually. Customer has at his disposal the usual means of addition and subtraction types of measurements working with pairs of transducers, as well as a choice of polarity for internal and external measurements, reset function and data shift. Registers of max. and min. values will calculate the mean value and shape deviation. The unit offers a well legible numeric display as well as an auxiliary character/text display for service information. Tolerance limits can be set up activate lights. The data from this device is passed onto the control lines for simple sorting. Data output is via RS232 serial interface.

EDK98

For measuring with one or two transducers, focused on visual display of the results. The column numeric display consists of 100 light diodes. These diodes come in three colours and will visually indicate measurements in or outside of a given tolerance. The 5½ digit numeric display shows the numeric values, the text display then gives the service information and instructions. The device offers 13 measuring ranges, the smallest being 1µm. When a tolerance is entered, the range of tolerance is set automatically, the displayed tolerance field will take up 80% of the display column. It is possible to enter one more limit, e.g. limit of interference. The set limits are automatically displayed visually and the diode column gradually changes colour - from green to yellow to red. If no tolerance is set, the column is yellow. EDK98 can be used in both addition and subtraction type of measurements with two transducers or results displayed individually; each channel individually including the range, reset and tolerance data. For dynamic measurements, the usual memory functions are available. Serial interface RS232 enables output of data, the 6 control lines can be used for connecting a sorter. For checking movements, e.g. eccentric running, an auto centering function is available.

TB8 Interface

This unit is used as part of a transducer network where the user can set up a network of up to 120 transducers. A typical application for TB8 is a multi channel inspection fixture where the TB8 network becomes a measuring station with computer assessment. The TB8 Interface module will take up to 8 transducers and is software settable for 1 – 15 addresses. The network is of RS485 type with a range of 1200m. Very complex measurement tasks can be undertaken with this system. The controlling computer synchronizes the transducers for simultaneous sampling and the data is entered into the compensation memory of the TB8 units. From here the data is transported into the controlling unit. Depending on the permeability of the network. Each interface has 12 input and output lines which are controlled logically from the PC. These lines are used for, e.g. reading the data from the end switches, motor control and other tasks. The conception of the transducer network does away with the complicated cabling with more complex setups as the transducer connection as well as control signals use only one single serial line.