

InnoBeamer LX2 and X2 USB Data Acquisition Device for VibroMatrix

- **Vibration measurement**
- **Supply voltage: via USB**
- **Output: USB**
- **Housing: inline**



■ Application

The InnoBeamer makes digital real-time vibration measurement easy! It is automatically recognized by the PC and digitizes the sensor signals for the VibroMatrix measurement system. Transferring the sensor signals to the PC is carried out without loss as a permanent data stream.

The InnoBeamer is supplied by PC's USB host interface and on its part supplies the connected sensors. External power supply is not required, field measurement by means of a notebook is possible without any problems.

The InnoBeamer supports synchronous data acquisition beyond device's borders. This way, devices can flexibly work alone or be combined to multi-channel systems.

Sensors with integrated data sheet (TEDS) are automatically recognized by the InnoBeamer. All required sensor data is read electronically, operating errors are avoided.

The InnoBeamer is a high-precision measuring instrument in a small format.

■ Properties

- Inputs for 2 sensors with IEPE interface as well as 1 r.p.m. sensor
- Supports intelligent sensors with TEDS
- Supply of all sensors
- Data transfer to PC by USB
- Supplied by USB interface of PC
- 4 decade input ranges
- 24 Bit analog-digital-conversion
- Synchronous measurement with several devices
- Cases can be interlinked by means of connectors
- For signals from 0.1 to 40000 Hz (**InnoBeamer X2**) resp. from 0.1 to 3200 Hz (**InnoBeamer LX2**)

Technical Data

Model	InnoBeamer X2	InnoBeamer LX2
Configuration	2x AC analog input, IEPE, TEDS 2x digital trigger input 1x supply photoelectric/contrast scanner 1x optional power supply	
AC Analog Input		
Standard configuration	AC input and IEPE supply	
IEPE supply can be switched off	by software	
TEDS: internal sensor data sheet is transmitted	yes, acc. to IEEE 1451.4	
IEPE power supply for sensor	2.8 mA	
IEPE compliance voltage	22 V	
Number of channels	2	
Input resistance	>1 MΩ	
A/D conversion	24 Bit, 96 kHz per channel	24 Bit, 8 kHz per channel
Signal frequency (-3 dB)	0.1 ... 40000 Hz	0.1 ... 3200 Hz
Measuring ranges	±8000, ±800, ±80, ±8 mV	
Actual wideband noise	5 µV (0.1 ... 40000 Hz)	5 µV (0.1 ... 3200 Hz)
Measuring error	<2 %	
Connector	BNC	
Digital Trigger Input		
Standard configuration	Input for external phase reference signal	
Level	0 ... 24 V	
Number	2	
Switching threshold High-Low	1.5 V	
Minimum pulse length	12 µs	40 µs
Supply for External Sensors (in addition to IEPE)		
Supply voltage	13.5 V	
Supply current	35 mA (150 mA with external supply)	
InnoBeamer Characteristics		
USB standard	2.0 and higher	1.1 and higher
Synchronous data acquisition of several devices	yes, by synchronisation cable	
Supply voltage	5 V via USB cable, optional 10 ... 30 V externally	
Supply current	475 mA (@ 5 V, with 2 IEPE sensors and supply photoelectric/contrast scanner)	
Operating temperature	-20 ... +55 °C	
Relative humidity	<95 %, without condensation	
Dimensions W x H x D	115 x 39 x 105 mm	
Mass	350 g	

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