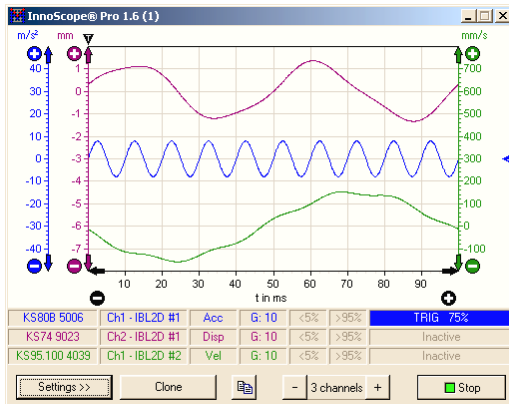
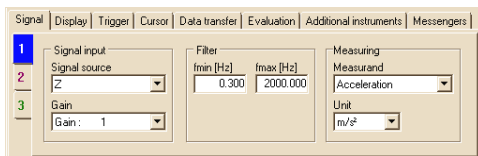




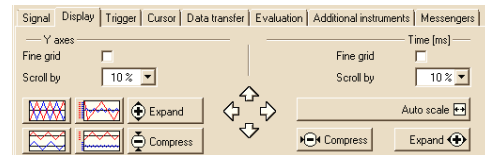
# InnoScope® Digital Oscilloscopes



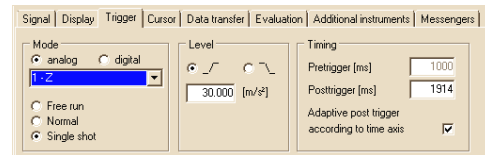
Collapsed settings



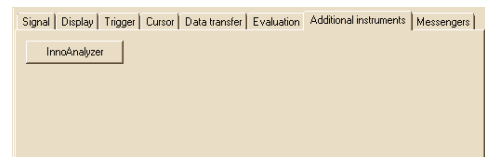
Signal settings



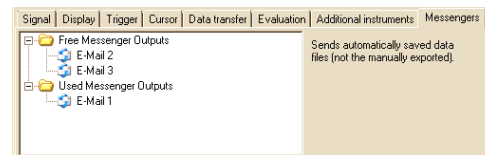
Display settings



Trigger settings



Additional instruments



Messenger settings

## Application

The InnoScopes allow the signals' shape analysis of fast vibration and shock processes in time domain. These processes can be displayed in detail, measured and exported for documentation or post-processing.

So products that are exposed to shocks can be optimized, for instance in the packaging sector. For the automotive industry, the automatic calculation of the HIC (Head Injury Criterion) was integrated, amongst others. The InnoScope is likewise used to measure decay processes and transients, e.g. for saw blades, drive shafts of mixing machines and other machine parts. Together with the InnoAnalyzer the natural frequencies can be determined.

## Properties

The InnoScopes are universal digital oscilloscopes. The Pro Version is able to process not only vibration acceleration, but also vibration velocity and displacement.

Up to 4 curves can be displayed in one InnoScope. They can represent both, signals of different sensors and signals of the same sensor but measured with different parameters.

The InnoScopes have a high memory depth. The acquired signal can be recorded with full resolution one second before and until up to 110 seconds after the trigger event with full resolution of 100  $\mu$ s.

For the evaluation, there are adjustable grids as well as 2 cursors. Time and measured values at the cursor position are presented numerically.

The export of data into other applications as graphic or text provides additional fields of application. The InnoScope can even carry out this export automated when triggering and then send this file via e-mail by means of the messenger function.

## Specification

Model	InnoScope Pro	InnoScope
<b>Signal processing</b>		
Filter	Freely adjustable 0.1 ... 40000 Hz **	
Measurands	AC voltage Vibration acceleration Vibration velocity Vibration displacement	AC voltage Vibration acceleration
Units	V, mV, $\mu$ V, nV, pV m/s <sup>2</sup> , mm/s <sup>2</sup> , $\mu$ m/s <sup>2</sup> , nm/s <sup>2</sup> , pm/s <sup>2</sup> , g, mg, $\mu$ g, dB m/s, mm/s, $\mu$ m/s, nm/s, pm/s, in/s, dB m, mm, $\mu$ m, nm, pm, in, dB	V, mV, $\mu$ V, nV, pV m/s <sup>2</sup> , mm/s <sup>2</sup> , $\mu$ m/s <sup>2</sup> , nm/s <sup>2</sup> , pm/s <sup>2</sup> , g, mg, $\mu$ g, dB
<b>Trigger</b>		
Modes	Free run, normal, single shot	
Source	Analog or digital channel	
Edges	Falling, rising	
Level	Freely adjustable $\pm$ 10000	
Pretrigger	1 s	
Posttrigger	0.001 ... 110 s	
<b>Graphicla presentation</b>		
Number of graphs	1 ... 4 per window	
Interval Y-axis	0.01 ... 10000	
X-axis (time)	1 ms ... 11000 ms / resolution 0.1 ms	
Refresh	1 ... 16 times per second *	
Indicators	Sensor, measuring channel, measurand, gain, underload, overload, trigger status	
Recommended screen resolution	From 800 x 600 pixels on	
<b>Cursors</b>		
Presentation	2 lines, optionally freely adjustable by mouse or button	
Numeric cursor data	For each cursor as well as difference cursor 2 - cursor 1	
Numeric cursor refresh	1 ... 4 times per second *	
<b>Data export</b>		
Controlling	Manual and automatically after trigger	
Formats	Bitmap, PNG, Enhanced Meta File (EMF), text	
Destinations	In clipboard or file	
<b>Event messangers</b>		
Message to e-mail	At trigger the sending of exported measured data takes place	
<b>Miscellaneous</b>		
Coupling	Yes, with the InnoAnalyzer	
Availabel in a kit	VMSet-03 ... 07	--
General functions	Hold of measured data after switch-off; Instrument is cloneable	

\* Centrally managed in InnoMaster

\*\* Use with InnoBeamer L2: 0.3 ...2000 Hz

Our policy is to improve specification of our products continuously, so technical and production details can be changed without any notice.

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Page 2/2

**ALTHEN GmbH Mess- und Sensortechnik**

Frankfurter Str. 150 - 152

+49 6195 70060

<http://www.althensensors.com>

65779 Kelkheim / Germany

+49 6195 700666

[info@althen.de](mailto:info@althen.de)

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