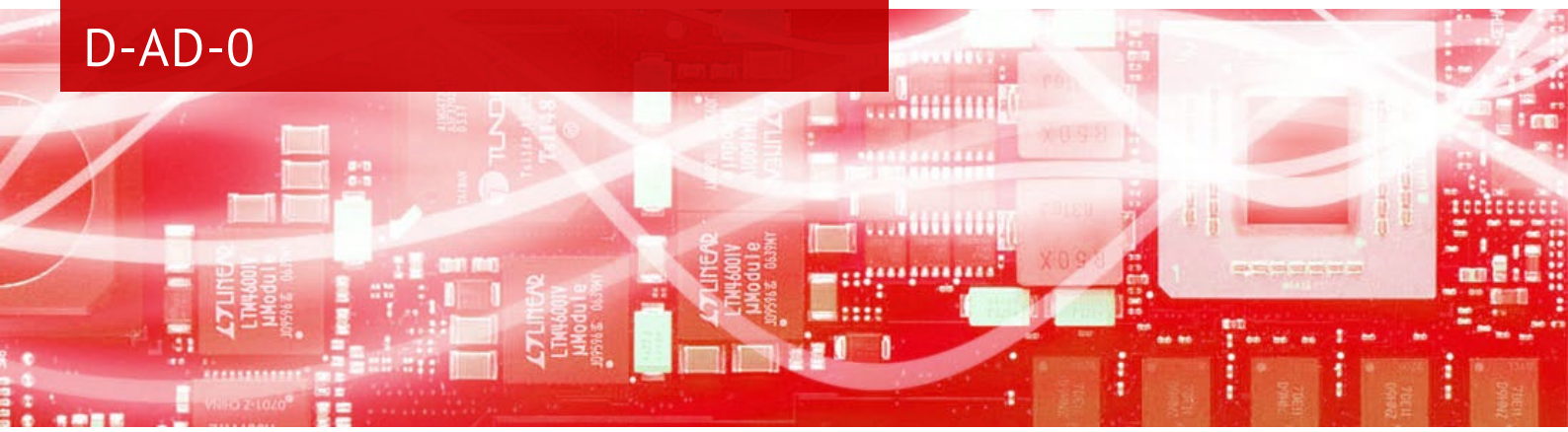
optomet.
LASER VIBROMETRY

Digital Acceleration Decoder
D-AD-0



Ultrafast FPGA-based Digital Signal Processing

Optomet Vibrometers feature an end-to-end FPGA-based digital signal processing allowing a fully digital read-out of the measurement data. Digital signal processing avoids any drawbacks of analog demodulation which may result from component aging, temperature dependencies, noise and non-linearities. Significantly higher sensitivity, better resolution, and stability are the benefits of OptoMET's end-to-end digital signal processing. Extremely low noise levels produce precise results even from poorly reflecting measurement objects.

HIGHLIGHTS:

- Digital decoder
- 8 acceleration measuring ranges
- Frequency range: 0 Hz - 100 kHz
- Max. acceleration 128,000 g
- Best acceleration resolution 70 µg / √Hz*

Start Acceleration Decoder

All vibrometers series feature by default a velocity decoder and can be supplemented with a suitable displacement and/or acceleration decoder.

The D-AD-0 acceleration decoder allows acceleration measurements up to 128,000 g at a maximum of 100 kHz and 2 m/s.
Required velocity decoder: D-VD-0

* The resolution is defined as the signal amplitude (rms) that produces 0 dB signal/noise ratio with 1 Hz spectral resolution at 50 % fmax.

Technical data

Pos.	Full Scale Output (Peak) g	Max. Frequency kHz	Max. Velocity m/s
1	160	25	2
2	640	50	2
3	3,200	100	2
4	6,400	100	2
5	12,800	100	2
6	32,000	100	2
7	64,000	100	2
8	128,000	100	2