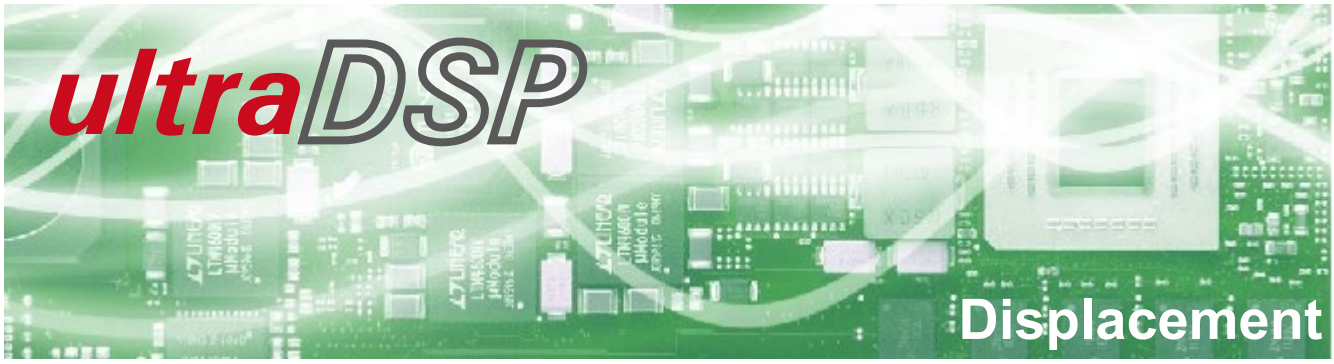
Digital Displacement Decoder D-DD-2N-12



ultraDSP Technology - Ultrafast digital signal processing (ultraDSP)

OptoMET offer a complete line of vibrometer digital decoders. Compared to their analog counterparts, digital decoders offer much better precision, resolution, aging resistance, and sensitivity. The user can thus measure vibrations / dynamic motion (even very small amplitudes) with high precision. Practical applications also benefit from the excellent low-noise digital signal processing that allows measurements on nearly all types of surfaces and from a large distance.

OptoMET has implemented its ultrafast digital signal processing technology (ultraDSP), which combines efficient algorithms with extremely powerful hardware, to achieve exceptional velocity resolution, high frequency bandwidths and extremely large dynamic range of up to 9 decades for velocity measurements (nm/s - m/s).

Displacement Decoder

OptoMET offers a wide range of digital decoder options allowing customers to tailor any vibrometer model to their unique measurement requirements.

Each vibrometer can also be equipped with a displacement decoder in addition to the velocity decoder already installed. These decoders provide an excellent displacement resolution of down to 0.05 pm and, depending on the performance class, a working frequency range up to 10 MHz, and a maximum velocity of 24.5 m/s.

D-DD-2N-12 Features:

- Digital Decoder
- 19 displacement measuring ranges
- Frequency range DC to 1 MHz
- Max. vibration velocity 12 m/s
- Resolution down to 0.05 pm

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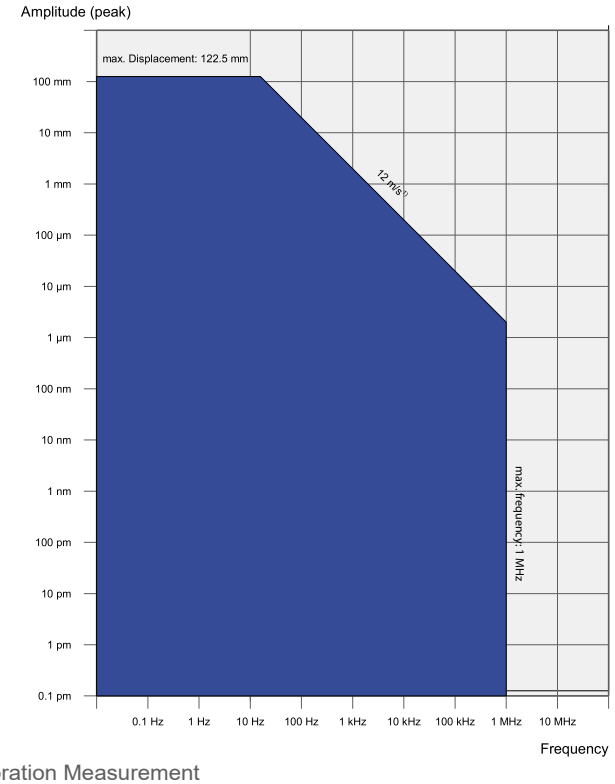
Technical data

The D-DD-2N-12 displacement decoder is the perfect supplement to a D-VD-2N velocity decoder. Together they provide an excellent sensitivity, even under challenging measuring conditions. It can measure displacements up to a velocity of 12 m/s and a vibration frequency of 1 MHz.

Pos.	Full Scale Output Peak to peak µm	Signal Frequency Range kHz	Max. Velocity m/s
1	0.245	0 … 1000	12
2	0.49	0 … 1000	12
3	0.98	0 … 1000	12
4	2.45	0 … 1000	12
5	4.9	0 … 1000	12
6	9.8	0 … 1000	12
7	24.5	0 … 1000	12
8	49	0 … 1000	12
9	98	0 … 1000	12
10	245	0 … 1000	12
11	490	0 … 1000	12
12	980	0 … 1000	12
13	2,450	0 … 1000	12
14	4,900	0 … 1000	12
15	9,800	0 … 1000	12
16	24,500	0 … 1000	12
17	49,000	0 … 1000	12
18	98,000	0 … 1000	12
19	245,000	0 … 1000	12



[1] Velocity limit is determined by the selected measurement range of the velocity decoder.

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