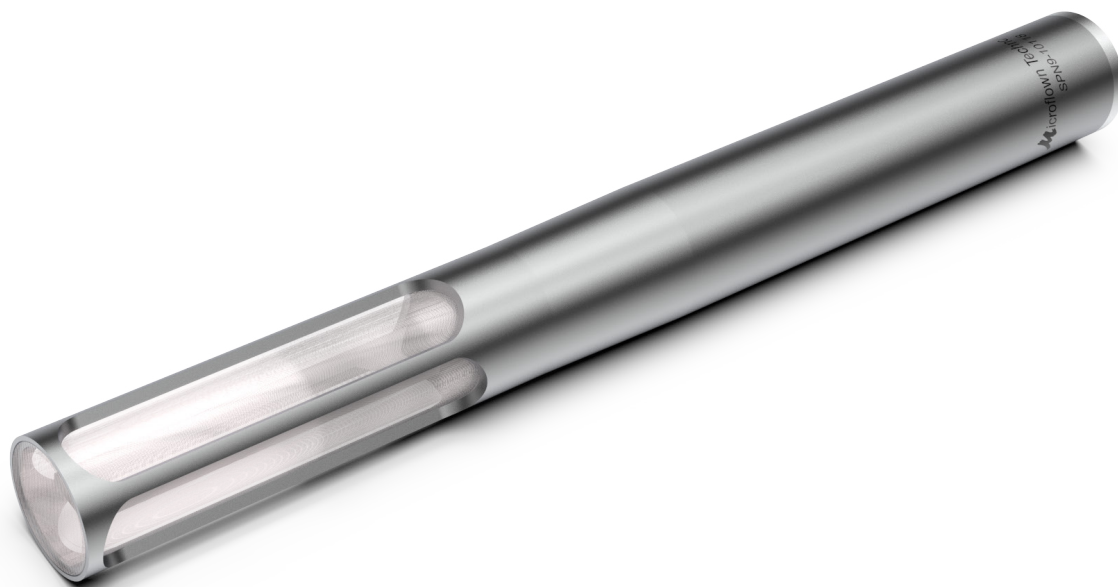


U REGULAR

1D PARTICLE VELOCITY SENSOR



PRODUCT DATA



Microflow Technologies
Charting sound fields



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U REGULAR

1/2 INCH 1D PARTICLE VELOCITY SENSOR

1D PARTICLE VELOCITY AND NON-CONTACT VIBRATION

The ½ inch U Regular integrates one single Microflown sensor. The Microflown is the only transducer which can physically measure the acoustic particle velocity directly. Any sound field is described by two complementary acoustic properties, the acoustic particle velocity vector and the scalar sound pressure. The U Regular captures a one-dimensional component of the particle velocity

vector. In the acoustic near field, particle velocity is the dominant acoustic property. Here the acoustic particle velocity and the structural velocity become directly proportional. This makes the U Regular very suitable for non-contact vibration measurements. The U Regular is designed to be used very close to the excitation source and capable of reaching difficult-to-access locations.

THE U REGULAR AT A GLANCE

- Covers a relevant and broad range of 20 Hz - 10kHz
- One dimensional component of particle velocity vector
- Compact design
- Non-contact vibration measurements
- Less dependent on environmental conditions

TYPICAL APPLICATIONS

- Particle velocity measurements
- Non-contact vibration measurements
- Troubleshooting

SPECIFICATIONS

SENSOR PERFORMANCE

Parameter	Particle Velocity	Unit
Sensitivity	12	mV/Pa V/(m/s)
Frequency Range (± 1 dB)	40 - 8,000	Hz
Frequency Range (± 2 dB)	20 - 10,000	Hz
Maximum level	130	dB
Noise floor (20-2k Hz)	34	dB(A)
Noise floor (20-10k Hz)	52	dB(A)

ENVIRONMENTAL

Parameter	Particle Velocity	Unit
Temperature Range	-20 to 5	$^{\circ}\text{C}$
Temperature Coefficient	0.006	dB/ $^{\circ}\text{C}$
Influence of Humidity (30 - 90%)	0.06	dB/%RH
Static Pressure Coefficient	< 0.5	dB/kPa
Maximum airflow	1.5	m/s

PHYSICAL DIMENSIONS

Parameter	Value	Unit
Connector type	7 pin	LEMO
Weight	40.1	g
Diameter	12.7 1/2	mm inch
Length	128	mm

SPECIFICATIONS

PHYSICAL DIMENSIONS

