# PU REGULAR

## SOUND INTENSITY PROBE

## PRODUCT DATA

Microflown Technologies
Charting sound fields

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# PU REGULAR

## 1/2INCH SOUND INTENSITY PROBE

### THOROUGH SOUND FIELD ANALYSIS WITH HIGH SPATIAL RESOLUTION

The PU Regular is the world's first probe to measure sound pressure and particle velocity physically at the same point. Allowing straight forward and broad band sound intensity measurements, without the need of introducing any assumptions or computational errors. Give your product an edge by unleashing the complete potential of a PU probe to quantify, visualize and localize your sound sources even in the most demanding testing environments. The technology provides the user flexibility on the measuring environment, being tolerant to environmental noises and for sound intensity a low susceptibility to the so-called P/I index. Furthermore, the PU Regular design stands for easy handling, be it for hand held scanning or fix it on a standard.

### THE PU REGULAR AT A GLANCE

- Covers a relevant and broad range of 20 Hz - 10kHz
- Sound pressure and the one-dimensional component of particle velocity vector
- Compact design with an optimized package for acoustic gain
- Sound intensisty/power estimations directly from the same measurement
- Less dependent on environmental conditions

### TYPICAL APPLICATIONS

- Noise source identification & mapping
- Sound ranking
- Scanning solutions e.g. Scan&Paint 2D
- Range of acoustic quantities: Sound Intensity, Sound Power, PVL measurements
- Acoustic impedance & absorption

# SPECIFICATIONS

## SENSOR PERFORMANCE

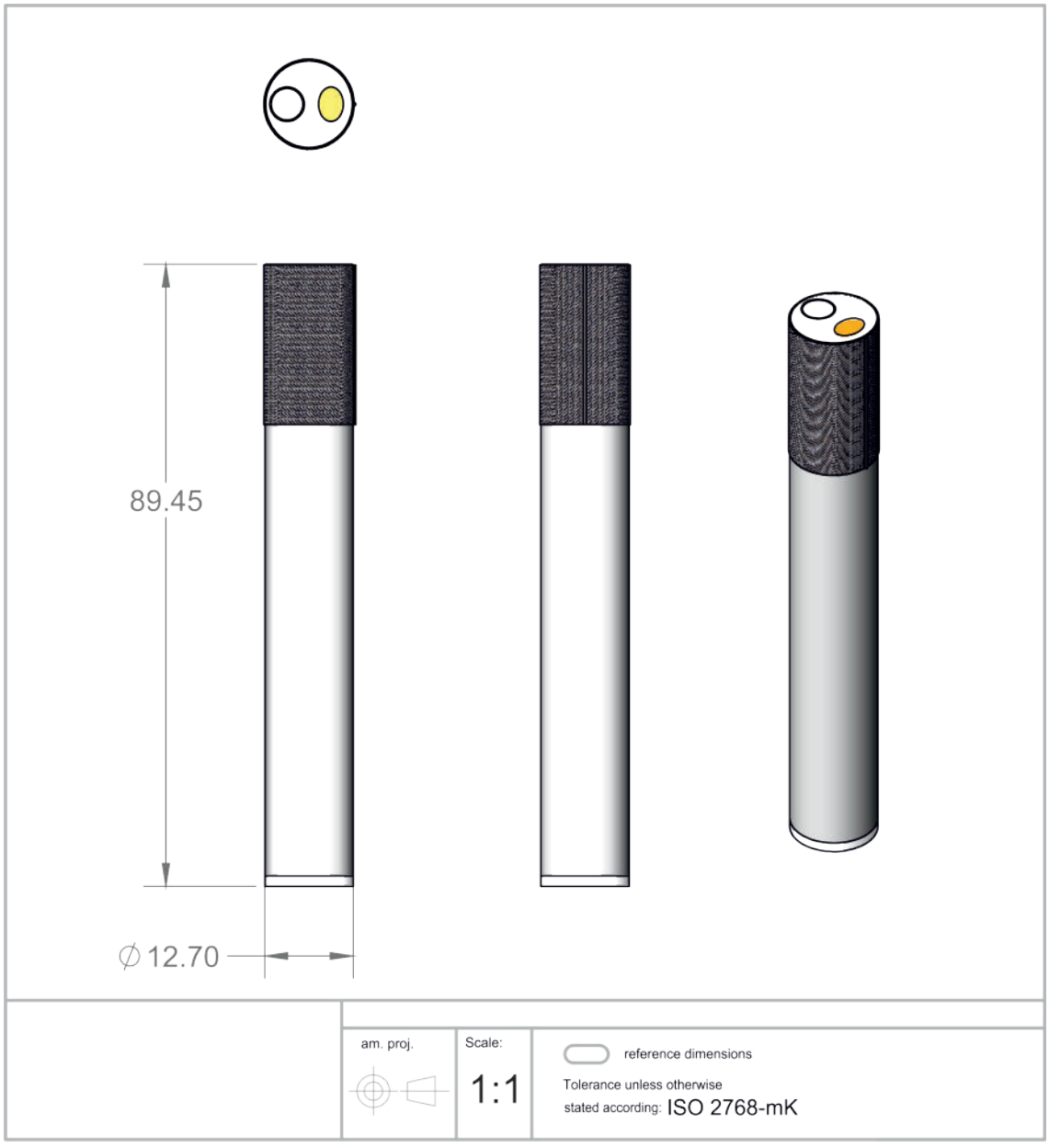
| Parameter | Sound Pressure \| Particle Velocity | Unit |
|---|---|---|
| Sensitivity | 65 \| 30 | mV/Pa \| V/(m/s) |
| Frequency Range (±1 dB) | 40 - 8,000 | Hz |
| Frequency Range (±2 dB) | 20 - 10,000 | Hz |
| Maximum level | 112 \| 130 | dB |
| Noise floor (20-2k Hz) | 22 \| 27 | dB(A) |
| Noise floor (20-10k Hz) | 27 \| 43 | dB(A) |

## ENVIRONTMENTAL

| Parameter | Sound Pressure \| Particle Velocity | Unit |
|---|---|---|
| Temperature Range | -20 to 63 | °C |
| Temperature Coefficient | 0.067 \| 0.006 | dB/°C |
| Influence of Humidity (30 - 90%) | 0.05 \| 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 | 36.7 | g |
| Diameter | 12.7 \| 1/2 | mm \| inch |
| Length | 89.5 | mm |

# SPECIFICATIONS

## PHYSICAL DIMENSIONS