

Data sheet **dsound**[®] **USS5-KS**

Universal sound sensor for precise frequency-selective monitoring of structure-borne sound in industrial environments.

Product description

- Deposited borne noise transducer
- Powerful, parameter stable signal processing by digital signal processor that is integrated in the sensor
- Adjustment of gain, frequency band, smoothing time and desired switching function via simple menu navigation directly on the sensor
- Analog output for direct connection to a monitor or headphones or output of the measured rms value / peak
- Potential free output and synchronization input for direct PLC connection
- RS485-interface

Application areas

Preferably Signals with a low harmonic content, acoustic noise / functional testing and process monitoring



Machine, plant and tool monitoring

(whistling, grinding, buzzing, roaring)

Recognition „tool in the section“, missing material, imbalance, leakages, solids in fluids, worn tools



Process monitoring

(banging, rushing, hissing)

Detection of lead fracture during arc welding, waterjet cutting abrasive ratio, material flow in pipes, leakage, parts counting



Monitor assembling processes

(interlocking, snapping, bottoming)

Connector assembly, popping or snapping of retaining rings or locking lugs, snap-in mounting of housings, fixed stop monitoring



Material fracture detection

(Cracking, tearing)

Foil / veneer cracks, broken glass, bursting of PET bottles



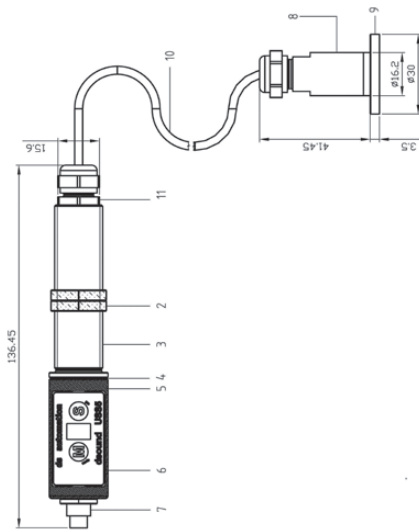
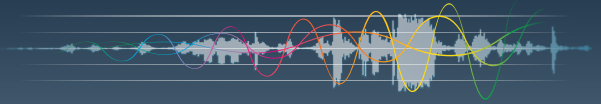
Equipment testing

(clicking, squeaking, grinding)

Monitoring of keyboard clicks, acoustic signals, acoustic emission during switching processes and motor movements

General Noise Monitoring

Room monitoring, monitoring of noise emission (units and plants)



Technical data

Sound sensor for structure-borne sound signals from 30 Hz to 12.5 kHz

separated borne sound pickup

Parameterization via integrated control panel

1 switching output (potential-free), 1 synchronization input, RS485

Analog input: RMS or noise signal

Supply: 10 ... 30 VDC

8-pin sub-miniature circular connector M9 x 0.5

Robust, compact housing (M18 x 1) x 130 mm (IP67)

- | | |
|--|---|
| 2. Nuts M18x1 | 8. Borne sound pickup with threaded hole M6 x 10 |
| 3. Housing (VA) M18x1 | 9. Mounting adapter for borne sound pickup (pitch circle diameter 30mm) |
| 4. Flat seal NBR65 | 10. Connection cable length 1.5 m |
| 5. Housing screw (ABS) | 11. Gland |
| 6. Control panel | |
| 7. Subminiature circular connector M9 x 0.5, 8-pin | |

Order information

USS5-KS/N/K	Sound Sensor dsound® USS5 body sound with pickup Type N (0.5 g - 500g)
USS5-KS/E/K	Sound Sensor dsound® USS5 body sound with pickup Type N (0.05 g - 50g)

Accessories



USS5-K-2/A
USS5-K-5/A
USS5-K-10/A

USS5-K-2/S
USS5-K-5/S

HM

MA

USS5-Con-Box

USS5-Con-Box-CAN

USS-NT

UCT1

USS5-K-2/A	or USS5-K-5 / A or USS5 K-10 / A (description below)	Needed
HM	Holding magnet for pickup	Mounting
MA	Mounting adapter for pickup	
USS5-Con-Box	Connection box for sound sensor dsound® USS5 (in connection with USS5-K-2/S or USS5-K-5/S)	Connection technology
USS5-Con-Box-CAN	Connection box for sound sensor dsound® USS5 with CAN USB RS485 router function (in connection with USS5-K-2/S or USS5-K-5/S)	
UCT1	UCT1 Optional 4.8" Panel PC; alternatively WinXP, Win7, Win2000, Windows Embedded, USB, LAN & digital I/O-ports (in conjunction with USS4-K-2/S or USS4-K-4/S)	
USS-NT	Optional power unit to supply the sensor	
USS5-K-2/S (2m) USS5-K-5/S (5m)	Connection cable for USS5 8-pin, shielded, M9 x 0.5 jack / connector M9 x 0.5	
USS5-K-2/A (2m) USS5-K-5/A (5m) USS5-K-10/A (10m)	Connection cable for USS5 8-pin, shielded, M9 x 0.5 socket / single wires with ferrules	

BG

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