

**Model: HDF-3D PROTECT**

**SENSOR FOR MONITORING  
STRUCTURE-BORNE SOUND**

Commercial datasheet



Approximate actual size

SECURITY TECHNOLOGY FOR MUSEUMS AND EXHIBITIONS

**DESCRIPTION**

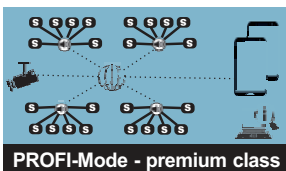
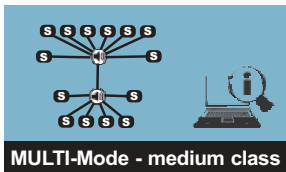
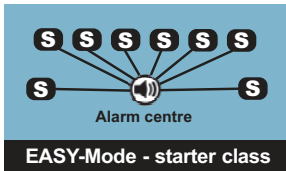
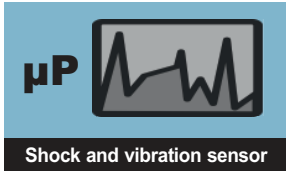
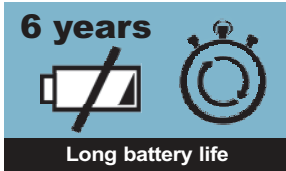
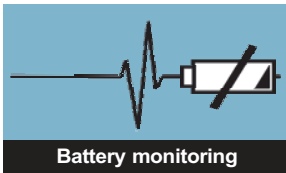
The **HDF-3D PROTECT** sensor is able to detect vibrations of varying severity. It is therefore able to detect structure-borne sound, which occurs when doors and hatches are forced open, but also when glass panes are hit. The compact sensor module can be easily and quickly concealed. Any position to which internal shock waves are transmitted is suitable. The **HDF-3D PROTECT** is the first choice for protecting showcases, furniture and technical exhibits. As the battery life is over 6 years, the sensor module can be operated after installation without any additional work or expense. The integrated 868 Mhz transmitter module achieves a high range even in solid buildings such as castles and palaces. The **Human Detector Flex** sensor **HDF-3D PROTECT** can be combined with all alarm and voice output devices (such as **HDF-BUZZER** and **HDF-SPEECH**) and the alarm monitoring unit **HDF-AMD**.

**HDF-3D PROTECT secures:**

- Showcases and display cabinets
- Pedestals and steles
- Figurines
- Technical exhibits
- Vehicles
- Models and much more

The intelligent structure-borne sound sensors can be used almost anywhere. They reliably detect the slightest vibration and movement.





## TECHNICAL SPECIFICATIONS

<b>Technology</b>	Wireless alarm sensor for monitoring structure-borne sound
<b>Detection method</b>	Intelligent 3D acceleration sensor (sensitivity in the mG range)
<b>Emphatic installation</b>	Concealed near the outer layer of the object to be protected, soundproof substrate connected to the outer layer
<b>Transmission frequency</b>	869,5 MHz
<b>Transmission power</b>	+ 15 dBm
<b>Range</b>	Up to 1500 m in open area, good penetration of walls due to modulation with frequency spread spectrum modulation *1
<b>Supply voltage</b>	3 V lithium battery CR2450 changeable, external supply voltage 8-14 V AC/DC *2
<b>Supply current</b>	Typically 9 µA in standby, 50 mA during transmission
<b>Response time</b>	Typically 50 ms for complete transmission
<b>Other functions</b>	Concealed micro switch for switching on and off Micro push-button for linking individually and for test mode XYZ acceleration sensor with measuring range of mG - G Automatic microprocessor controlled calibration Long battery life up to 6 years *3 Monitoring strength of receive signal Monitoring battery voltage (alarm before end of battery life) All operating modes supported (EASY-, MULTI- and PROFI-Mode) *4
<b>LED</b>	3 mm LED red indicating radio operation, 3 mm LED green indicating program function
<b>Dimensions</b>	70,4 mm (L) x 50,4 mm (W) x 17 mm (H)
<b>Weight</b>	Approx. 41 grams including battery
<b>Material of casing</b>	Impact-resistant plastic ABS UL94V-1
<b>Protection class</b>	IP20 (EN 60529)
<b>Temperature range</b>	-10° C to +60° C if powered
<b>Humidity</b>	0-95%, non-condensing
<b>Conformity</b>	EN 61000-6-2; EN 61000-6-3; EN 62368-1; EN 63311 ETSI EN 301489-1, ETSI EN 301489-3, ETSI EN 300220-2; EN 63000 (RoHS)

\*1 The range achieved may vary depending on the spatial conditions. All measurements carried out with standard module antenna.

\*2 We reserve the right not to ship the CR2450 lithium button cells in case of airfreight. A credit note will be issued therefore.

\*3 The specified value is approximate. The service life may change depending on alarm frequency, temperature and battery age.

\*4 For more information on the various operating modes, please refer to the separate data sheets.

Specifications are subject to change without prior notice. All measurements were performed under specific conditions.

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www.human-detector.com

Human Detector® HDF-3D PROTECT SENSOR FOR MONITORING STRUCTURE-BORNE SOUND

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