# Protection of Furniture in Museums and Exhibitions



## We protect your values!

Today antique furniture or designer pieces are on display in many museums and exhibitions. The protection of these exhibits can prove to be quite complex. This is due to the variety of furniture and different materials.

Chairs and armchairs invite you to linger, cabinets with drawers and doors rouse the curiosity of visitors. In addition living conditions are also shown in castles and palaces. These are often furnished with utensils and decorative exhibits in the immediate vicinity of the furniture.

The primary goal is to protect the objects against physical contact. Depending on the type of furniture various security strategies can be applied.



### The Solution with Human Detector

The **Human Detector** Sensor is placed in a hidden position on the furniture. A capacitive field is generated via the sensor surface area, which is also mounted in a concealed manner. Foils and wire meshes in wardrobes and cabinets for example are suitable as sensor surfaces. In seating furniture the spring core of the seat can also serve as a sensor surface. Depending on the type of furniture the field can expand, e. g. if the object to be monitored is made of metal or other conductive material.

The detection range penetrates the outer shell of the furniture with the appropriate set sensitivity. An alarm is activated before the piece of furniture is touched. The sensors which are integrated in the **Human Detector** alarm sensor can provide additional protection to the exhibit. Vibrations that may occur when the piece of furniture is raised or is hit by someone are immediately detected and reported as an alarm.

The alarm signal of the **Human Detector** sensors can be connected to external alarm systems - both wired and wireless options are possible. Depending on the location, it is also recommended to connect a video surveillance system. This allows the immediate assessment of the situation and preservation of evidence. **Human Detector** automatically controls PTZ cameras.

Due to the continuous further development, there may be differences in functionality between the different versions of the **Human Detector** modules. More detailed information can be obtained from us or our trained partners on request.

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#### What Material is Needed?

The listed material is required for the protection of furniture in exhibitions and museums.

## **Basic Equipment:**







## **Optional Accessories:**



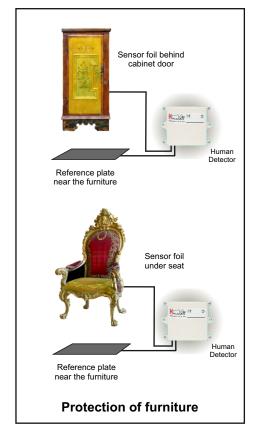


### Installation - This is How it is Done

Please read the operating instructions carefully before commencing any work. The installation has to be agreed with the responsible furniture restorer. Place the **Human Detector** module in a way directly on the piece of furniture, so that it is not visible to any visitors. Furniture is usually made of non-conductive materials such as wood, plastic, leather, etc. Materials such as copper foil, small-meshed aluminium braids (so-called fly wire) as well as low-emission special foils (heddier article HD-FS) can be used as sensor surfaces.

The sensor surfaces inside the furniture are attached as close as possible to the outer skin, e. g. on the side panels or doors of a cabinet. In the case of seating furniture the sensor foil is attached below the seating area. All sensor surfaces are connected with cables. The resulting total area is connected to the **Human Detector** alarm module.

For reference, a piece of cable, a metal plate or a second piece of seating furniture can be connected to the reference input of the **Human Detector** module. The **Human Detector** module should be firmly attached to the piece of furniture. This enables it to detect vibrations and structure-borne sound.



Select a low sensitivity setting in the alarm module. Then switch on the module. Test the alarm activation by trying to touch the secured piece of furniture. You can change the sensitivity in the **Human Detector** Module and repeat the process until you have found the ideal setting. Repeat this procedure also for the seismic sensors, if required. The material of the piece of furniture can result in various detection ranges.

Connecting to the **Human Detector** alarm centre or to an alarm loop of a burglar alarm system can be carried out subsequently. This work should only be carried out by trained personnel.

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