

## Safety and warning information

- (1) The safety and warning information set out below**
  
- (2) The specifically applicable instruction manual for the purchased product**

Instruction manuals for each product are available on the Kistler website and can be accessed via the type number at [www.kistler.com](http://www.kistler.com) or with the QR code.

Paper instruction manuals can also be requested from Kistler's customer service or the responsible Kistler sales department.

**Note:**

Instruction manuals are subject to change at any time without advance notification, in particular regarding equipment modifications (conversions, retrofits etc.). Instruction manuals must be updated regularly from the internet for this reason.

# 1. Safety and warning information

## 1.1 General

Kistler offers a wide range of products in the dynamic measurement technology sector for recording pressure, force, torque and acceleration, designed exclusively for use in industry and research with an emphasis on automotive development, industrial automation and further applications engaged in pushing back the frontiers of physical science. These products are high-precision devices that acquire and process data which can be transmitted electronically to other systems.

At the time of purchase, each Kistler product is compliant with the necessary and applicable safety regulations and all other relevant requirements. Every product is in perfect condition with respect to safety requirements when it leaves Kistler's factory.

## 1.2 Setting up and using your product

Only qualified individuals with the necessary technical know-how are allowed to install and operate Kistler products. These qualified individuals must adhere to all requirements contained in this safety and warning information and in the applicable instruction manual for the respective product. They must also comply with the applicable national safety provisions for installation and operation in each case.

If a product is not installed, used or maintained in the proper manner, this could result in serious injuries or fatal accidents and damage to the product and its surroundings.

Please check for any damage to the packaging before unpacking the product. Any damage found must be reported to the shipping company and the Kistler Sales Center or its distributor.

The delivery scope must be checked before starting to set up the product. If a part is missing, the responsible Kistler Sales Center or its distributor must be notified.

If the product has visible signs of damage, no longer works, is stored for lengthy periods in unfavorable conditions and/or was exposed to major stresses during shipping, safe operation is no longer guaranteed and the product must immediately be returned for repair to Kistler or the responsible distributor.

The product may not be disassembled, opened, repaired or otherwise modified because this may impair its operation and, in particular, can result in electric shocks. Any attempt to open or modify the product or to damage or remove labels will automatically result in the voiding of all warranty claims.

The product must not be used in potentially explosive environments unless it is specifically designated for such use.

The customer is responsible for protecting individuals at sensor installation positions in the event of a material failure, and must implement the necessary structural precautions for this purpose.

### 1.3 Transportation and storage

All the following safety precautions must be taken if the product is to be shipped or stored for a lengthy period:

- All BNC, Fischer and Triax connections must be covered with the dust caps that are supplied.
- The plug connections must be kept dry and dust-free.
- It must be ensured that no dirt can penetrate the product.
- The storage environment must be dry, and must provide protection against vibrations.
- Compliance with the storage temperature is required according to the specifications on the relevant data sheet or in the relevant operating instructions.
- The product must be stored in the original packaging.

## 1.4 Product use

During storage and operation, the specifications on ambient temperature stated in the technical data must also be observed. The product may be permanently damaged if the permissible ambient temperature is exceeded to a significant extent.

The product may only be used under the specified operating conditions; in particular, high relative air humidity and temperature fluctuations that might result in condensation should be avoided.

Under no circumstances must the protective ground conductor be interrupted or rendered ineffective. Its purpose is to provide protection against electric shocks and it must therefore be connected to the relevant equipment.

Defective fuses must only be replaced by appropriate substitute types with the specified current rating. „Repaired“ fuses must not be used, and fuse holders must not be short-circuited.

Do not perform tuning, maintenance or repair work on live, open devices.

## 1.5 Additional information and warnings when using the product with hydrogen

The purchased product must only be used while continuous supervision is in place. In no way is the product designed for use during unsupervised operation.

The customer undertakes to inspect the product's external condition regularly and to communicate this information to Kistler on a regular basis for the purpose of continuously improving the product.

The customer agrees that the purchased product must only be used in conjunction with regular calibration performed by Kistler. Calibration is intended to identify any deviations that may be present.

The customer is obligated to monitor the signals constantly for any anomalies and/or failures that may occur. In case of a failure and/or anomaly, the customer must immediately inspect the sensor and report the occurrence to Kistler. The customer and Kistler will then decide whether the entire sensor should be replaced and/or whether other measures must be implemented.

The customer is responsible for the safety of staff when the product is used with hydrogen. The customer shall inform its staff about any and all hazards that can occur in applications with hydrogen.

The customer undertakes to perform continuous monitoring for leaks and to continuously monitor the ambient air, with the use of appropriate sensors/systems for early detection and alerting in the event of any escapes of hydrogen.

The customer acknowledges that the purchased products were not designed for standard use with hydrogen. Under no circumstances is the customer permitted to pass on and/or sell the product to third parties for commercial purposes.

Kistler declines all liability for any use of the product with hydrogen.

## 1.6 Electromagnetic compatibility

To ensure that electromagnetic compatibility (EMC) is maintained for the entire measuring chain, particular attention must be paid to connection of the inputs and outputs of the cable screen, and to the cable installation:

- Cables must not be run parallel to wiring that causes interference.
- Only the supplied or optionally available cables must be used.
- Please ensure a reliable connection between shielding, connector boxes and device enclosures.
- Machinery and hardware must also comply with the EMC standards.

Contact addresses and further information are available at this internet address: <http://www.kistler.com>

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