

Water meter certification



Water meters and legal metrology

In many countries, correctly determining the amount of water delivered to homes is usually regulated in their Legal Metrology system. Reason being is that the price of potable water is rising and likely to continue doing so. After all, the efforts needed to filter and transport water to growing numbers of points of consumption are also increasing. Within its service portfolio, NMI offers Certification of Water Meters.

ABOUT NMI

NMI is the independent Test and Certification institute with a long and proven track record in legal metrology. Being appointed Notified Body under the Measuring Instruments Directive (MID) and Issuing Authority under the OIML scheme, we can offer a variety of Certifications to suit the market for which your Water Meter needs to be certified. We are the best route to compliance, delivering confidence in measurement to both suppliers and users of Water Meters.

THE WORLD IS GETTING SMALLER

The necessary certifications depend on one's target markets. Ideally, we first devise a test programme that meets the requirements from all desired target markets. Upon positive completion of that test programme, various separate documents are drawn up. Some of documents satisfy, for instance the requirements in the European Union, whereas others enable you to obtain national Approvals in say the Far East. Our aim is to be a one-stop-shop for your legal metrology certification, in as large a geographical area as possible.

BACKGROUND

Within the EU, legal metrology on Water Meters is largely harmonised. Through the MID, the largest single economic market is accessible with a so-called EU Type Examination Certificate (Module B) and Product Verification under Modules D or F. During the "construction" of MID, care was taken not to contradict known (inter)national legal metrology requirements for Water Meters. In fact, OIML R49 formed the starting point for discussions and continued to be that all the way down to completion. As a result, the situation within the EU was harmonised while still being in-line with global harmonisation. Further well-known standards in this field are EN 14154 and ISO 4064.

THINKING AHEAD

Before actual testing starts, it pays to first define one's target markets and thereby the test programme to be completed. In this way, testing can be done more efficiently than by later on adding countries or regions – and therefore tests.

Even earlier in the product life cycle, during the design of the Water Meter, it pays to take legal metrological requirements into account. Having a (close to) final product modified so that it meets a seemingly new requirement, is an expensive exercise. With that in mind, NMI offers guidance during the design phase of Water Meters, enabling all requirements to be taken into account in the design and thereby avoiding expensive and time consuming redesigns. Consider this to be a kind of service translating legal metrological requirements into design specifications.

TESTING SMART WATER METERS

NMI has developed a mobile installation for dynamic testing of smart water meters with water flow. This installation can be used during EMC tests, where the meter is placed inside an anechoic room. The accuracy of the meter under test is examined with and without exposure to radiated electromagnetic fields with real water flow through the meter.

CLARITY IN ADVANCE

NMI always informs you about the project steps in advance. Before starting tests, we will issue a draft certificate based on your documentation. This is to ensure that the exact project definition is captured correctly at the start of the investigation.

MORE INFORMATION

If you are interested in the certification of Water Meters, we are happy to answer all your questions. Please feel free to contact us at nmi@nmi.nl. On our website www.nmi.nl, you can find more information about our services.



