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**Acoustics — Laboratory tests on  
noise emission from appliances and  
equipment used in water supply  
installations —**

**Part 3:  
Mounting and operating conditions for  
in-line valves and appliances**

*Acoustique — Mesurage en laboratoire du bruit émis par les  
robinetteries et les équipements hydrauliques utilisés dans les  
installations de distribution d'eau —*

*Partie 3: Conditions de montage et de fonctionnement des  
robinetteries et des équipements hydrauliques en ligne*

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by ISO/TC 43, *Acoustics*, Subcommittee SC 2, *Building acoustics*.

This third edition cancels and replaces the first edition (ISO 3822-3:1997), which has been technically revised. It also incorporates the Amendment ISO 3822-3:1997/Amd 1:2009.

A list of all the parts in the ISO 3822series can be found on the ISO website.

## Introduction

The method of measurement for laboratory tests on noise emission from appliances and equipment used in water supply installations is specified in ISO 3822-1.

This document gives detailed descriptions for mounting and operating in-line valves and appliances, which control the flow, pressure or temperature of the water in water supply installations in such laboratory tests.

**NOTE** An in-line valve is one through which water flows and which is permanently installed in a system of rigid pipework upstream of the outlet fitting.

These in-line valves and appliances are for use with cold and/or hot water in buildings (stop valves, check valves, in-line thermostatic and mechanical mixing valves, domestic water meters, valve combinations for installation in water heater feed pipes, pressure reducing valves, flow restrictors, water governors, service valves, in-line temperature and pressure relief valves, etc.).



# Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations —

## Part 3: Mounting and operating conditions for in-line valves and appliances

### 1 Scope

This document specifies the mounting and operating conditions to be used for in-line valves and appliances which control the flow, pressure or temperature of the water in water supply installations, when measuring noise emission resulting from water flow.

It is applicable to in-line valves and appliances of maximum nominal size DN 32 and to systems in which the maximum water flow rate does not exceed 1,6 l/s.

NOTE See ISO 6708; DN is the symbol for “nominal size”. The number of the nominal size is loosely related to the inside diameter (in millimetres) of the in-line valves and appliances.

The procedures described are for general use for all types of in-line valves of conventional design.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 49, *Malleable cast iron fittings threaded to ISO 7-1*

ISO 3822-1, *Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 1: Method of measurement*

### 3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

### 4 Mounting

#### 4.1 General

##### 4.1.1 General

In-line valves shall be inserted between two straight pieces of pipe of the type and sizes appropriate to the end-connections of the valve. Each straight piece of pipe shall be at least ten diameters long.