BS ISO 9635-5:2014

BSI Standards Publication

# Agricultural irrigation equipment — Irrigation valves

## Part 5: Control valves

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## National foreword

This British Standard is the UK implementation of ISO 9635-5:2014. It supersedes BS ISO 9635-5:2006 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee AGE/30, Irrigation and drainage equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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# Agricultural irrigation equipment — Irrigation valves —

## Part 5: Control valves

*Matériel agricole d'irrigation — Vannes d'irrigation —*

*Partie 5: Vannes de contrôle*

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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).

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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 meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 18, *Irrigation and drainage equipment and systems*.

This second edition cancels and replaces the first edition (ISO 9635-5:2006), which has been technically revised.

ISO 9635 consists of the following parts, under the general title *Agricultural irrigation equipment — Irrigation valves*:

— *Part 1: General requirements*

— *Part 2: Isolating valves*

— *Part 3: Check valves*

— *Part 4: Air valves*

— *Part 5: Control valves*


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INTERNATIONAL STANDARD ISO 9635-5:2014(E)

# Agricultural irrigation equipment — Irrigation valves —

# Part 5: Control valves

## 1 Scope

This part of ISO 9635 specifies construction and performance requirements and test methods for control valves, intended for operation in irrigation systems with water at temperatures not exceeding 60 °C, which can contain fertilizers and other chemicals of the types and concentrations used in agriculture.

It is applicable to hydraulically-operated control irrigation valves of DN 15 (1/2 inch) diameter or greater, designed to operate in any position, from fully open to fully closed. The valves can either be directly operated (i.e. the force applied via a spring or diaphragm to the obturator), or pilot-operated (i.e. the force is applied through an adjustable pilot valve via a diaphragm). These valves can also function as check valves.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9635-1:2014, *Agricultural irrigation equipment — Irrigation valves — Part 1: General requirements*

ISO 9635-2:2014, *Agricultural irrigation equipment — Irrigation valves — Part 2: Isolating valves*

ISO 9644, *Agricultural irrigation equipment — Pressure losses in irrigation valves — Test method*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 9635-1 and the following apply.

**3.1**
**control valve**
device intended to regulate, within specified limits, one or more functions

Note 1 to entry: The functions are flow rate, water level, and pressure control (upstream or downstream). The valves are also used to start or terminate irrigation system operation.

**3.1.1**
**autonomous control valve**
*control valve* (3.1) that uses the energy from the conveyed water to adjust the position of the obturator for the regulation of a specific function

**3.1.2**
**non-autonomous control valve**
*control valve* (3.1) that requires external power to adjust the position of the obturator for the regulation of a specific function

**3.1.3**
**pressure-reducing valve**
*control valve* (3.1) that reduces a higher inlet pressure to a constant lower outlet pressure regardless of variations in the flow rate or variations of the inlet pressure

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