

Agricultural irrigation equipment — Volumetric valves — General requirements and test methods

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National foreword

This British Standard is the UK implementation of ISO 7714:2008.

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

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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.

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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.

ISO 7714 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 18, *Irrigation and drainage equipment and systems*.

This fourth edition cancels and replaces the third edition (ISO 7714:2000), which has been technically revised.

Agricultural irrigation equipment — Volumetric valves — General requirements and test methods

1 Scope

This International Standard specifies general requirements and test methods for volumetric valves able to automatically deliver preset quantities of water. It is applicable to valves actuated by pipeline pressure and flow alone, and which do not need any other, external, source of energy.

NOTE Volumetric valves are typically required to operate correctly with different qualities of irrigation water at a variety of flow rates and at temperatures between 5 °C and 50 °C.

2 Normative references

The following referenced documents are indispensable for the application 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 7-1, *Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation*

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

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

volumetric valve

valve capable of automatically delivering preset volumes of irrigation water at various flow rates, by measuring the volume of water flowing through the valve

3.2

serial volumetric valve

volumetric valve designed to operate in a sequence of volumetric valves

3.2.1

single outlet serial volumetric valve

serial volumetric valve with one inlet and one outlet, intended for connection in parallel in a system of volumetric valves designed to be opened by means of a hydraulic command when preset to the open position and which, on closing after delivering a preset volume of water, transmits a hydraulic command to the next volumetric valve in the system to bring it into operation

3.2.2

single outlet “skip over” serial volumetric valve

serial volumetric valve with one inlet and one outlet, intended for connection in parallel in a system of volumetric valves designed to be opened by means of a hydraulic command when preset to the open position and which, on closing after delivering a preset volume of water, skips over the next volumetric valve in the system and transmits a hydraulic command to the second next volumetric valve to bring it into operation