

STANDARD INFORMATION

Standard: UL 60730-2-8

Standard ID: Automatic Electrical Controls - Part 2-8: Particular Requirements for Electrically Operated Water Valves, Including Mechanical Requirements [UL 60730-2-8:2023 Ed.3]

Previous Standard ID: Automatic Electrical Controls for Household and Similar Use - Part 2: Particular Requirements for Electrically Operated Water Valves, Including Mechanical Requirements [UL 60730-2-8:2007 Ed.2+R:10May2017]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **May 24, 2025**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

Overview of Changes:

- New requirements for the overvoltage test
- New requirements for the burnout test
- New requirements for the long term pressure test

Specific details of new/revise requirements are found in table below.

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown lined-out below.</i>
17	Info	Endurance
17.7	Info	Overvoltage test (or overload test in Canada, the USA, and all countries using an overload test) of automatic action at accelerated rate <i>New clause added;</i>
17.7.1		The electrical conditions shall be 1,06 times the rated voltage or 1,06 times the upper limit of the rated voltage range when performing an overvoltage test or as indicated in 17.2.3.1 and 17.2.3.2 when performing an overload test. <i>New clause added;</i>
17.7.2		The valve shall be tested at: a) the maximum declared ambient temperature. During the test, the heating or cooling effect of the water flow temperature shall not be allowed to cause the ambient temperature to exceed the maximum declared ambient temperature or fall below the minimum declared ambient temperature; b) the highest declared water flow temperature; c) the declared maximum operating pressure differential. <i>New clause added;</i>
17.7.6		The number of automatic cycles for the test shall be a minimum of 6 000 or any higher number as required by the application and declared by the manufacturer in Table 1, requirement 27.
25	Info	Normal operation <i>New clause added;</i>
25.2		Overvoltage and undervoltage test A valve shall operate as intended at any voltage within the range of 85 % of the minimum rated voltage and 110 % of the maximum rated voltage, inclusive. Compliance is checked by subjecting the valve to the following tests at Tmax, maximum water temperature (see Table 1, requirement 106) and maximum operating pressure differential (see Table 1, requirement 102). For this test, any declared limitation of operating time (see Table 1, requirement 34) is considered.



CLAUSE	VERDICT	COMMENT
		<p>The valve is subjected to 0,85 VRmin until equilibrium temperature is reached and then tested immediately for operation at 0,85 VRmin.</p> <p>The valve is also subjected to 1,1 VRmax until equilibrium temperature is reached and then tested immediately for operation at 1,1 VRmax and at rated voltage.</p> <p>After each test, the valve shall operate once as intended.</p>
27	Info	Abnormal operation
27.2	Info	Burnout test
		<p>Valves with motorized electrical <u>actuators where the motor employs insulation for the protection against electric shock shall withstand the effects of blocked output without exceeding the temperatures indicated in Table 104</u>. Temperatures are measured by the method specified in 14.7.1.</p>
27.2.3		<p><u>Valves with motorized electrical actuators where the motor employs only FUNCTIONAL INSULATION shall withstand the effects of a blocked output. During the test the exceeding of temperature in Table 104 is allowed provided that, after the test, the valve complies with items a) to g) of H.27.1.1.3, where applicable.</u></p> <p>This test is not conducted on valves which meet the requirements of 14.4.101.</p>
Annex CC	Info	Long term pressure test for thermoplastic bodied valves
		<p><i>New clause added;</i></p> <p>Valves of thermoplastic material intended to be connected to the water supply mains for the control of water for tap and shower outlets</p>
CC.2		<p>The valves are checked by the following test, which is made in a heating cabinet in which the air is caused to circulate and is maintained at a temperature within -5°C of the air temperature specified in Table CC.2. The test is made on 10 valves which have not been subjected to any other test. The samples are connected to a water supply system as in normal use and are filled with water, but not exposed to any other pressure; they are kept under these conditions for a period of 3 h. After this period, the water pressure is raised, at a rate of no more than 0,084 MPa/s (0,84 bar/s), but within 60 s to a pressure of 2,5 MPa \pm 0,05 MPa (25 bar \pm 0,5 bar). The samples are kept under these conditions for 500 h.</p>