eurofins | E&E

(1) # EU-Type Examination Certificate

(2) Equipment or protective system intended for use in potentially explosive atmospheres **- Directive 2014/34/EU**

(3) Certificate number: **SEV 17 ATEX 0177 X**

(4) Product: Two-State Controller JUMO exTHERM-DR

(5) Manufacturer: JUMO GmbH & Co. KG

(6) Address: Moritz-Juchheim-Strasse 1, 36039 Fulda, Germany

(7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) Eurofins, notified body No. 1258, in accordance with article 17 of Directive 2014/34/EU of the European parliament and of the council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential report no 21CH-00125.X12

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018
EN 60079-7:2015
EN IEC 60079-7:2015/A1:2018
EN 60079-31:2014

Except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign «X» is placed after the certificate number, it indicates that the product is subjected to special conditions for safe use specified in the schedule to this certificate. The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

(11) This EU type examination certificate relates only to design and construction of the specified product. Further requirements of this directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II (2) G [Ex eb Gb] IIC
II (2) D [Ex tb Db] IIIC

Eurofins Electric & Electronic Product Testing AG
Notified Body ATEX

Patrick Gutensohn
Product Certification

(13) # Appendix

(14) **EU-Type Examination Certificate no. SEV 17 ATEX 0177 X**

(15) **Description of product**

The JUMO exTHERM-DR is a two-state controller for heating or cooling applications. The safe Ex (eb) measuring input allows the direct connection of the corresponding type tested probes. Use of a barrier is no longer required.
Other than the relay output "Controller" K1, JUMO exTHERM-DR also has the second relay output K2. It signals when limit values have been exceeded or are not met.
Alternatively, a binary signal of 0/10 V is also available for the controller output or the limit value signaling.
The current measured value or the setpoint value is issued via the standard analog output.
The vibrant display for plain text and with backlight shows information about measured value, setpoint value, limits value, etc. in a clearly arranged manner.
Clear operation enables quick configuration and thereby reduces the startup times.
Alternatively, the configuration and parameterization can also take place via a setup program and the standard USB interface.

Parameters:
For types exTHERM-DR 701055 / * - 23/ 045
Supply circuit only for the connection to a non-intrinsically safe circuit with a (Terminals N and L1) safety-related maximum voltage of
U_N = 110 up to 240 V AC +10% / -15%, 48 up to 63 Hz
U_m = 250 V

For types exTHERM-DR 701055 / * - 25 / 045
Supply circuit only for the connection to a non-intrinsically safe circuit with a (Terminals L- and L+) safety-related maximum voltage of
U_N = 20 up to 30 V DC or AC, 48 up to 63 Hz
U_m = 250 V

For all types
Binary connection only for the connection to a non-intrinsically safe circuit with a (Terminals 4 and 5) safety-related maximum voltage of
U_m = 250 V
Analogue connection only for the connection to a non-intrinsically safe circuit with a (Terminals 9 and 10) safety-related maximum voltage of
U_m = 250 V
Relay connection only for the connection to a non-intrinsically safe circuit with a (Terminals 11, 12, 13) safety-related maximum voltage and current of
U_m = 250 V
I_{max} = 3 A
Relay connection only for the connection to a non-intrinsically safe circuit with a (Terminals 14, 15, 16) safety-related maximum voltage and current of
U_m = 250 V
I_{max} = 3 A

USB connection only for the connection to a non-intrinsically safe circuit with a (USB-socket) safety-related maximum voltage of
U_m = 250 V

Output circuit in type of protection for increased safety [Ex eb] IIC resp. IIIC with the (Terminals 1, 2, 3 and 6, 7, 8) following maximum values per circuit:
U_o = 6 V
I_o = 41.2 mA
P_o = 61.8 mW
Characteristic line: linear

Classification of installation and use ..... : Stationary

Ingress protection ..... : IP20

Rated ambient temperature range (°C) ..... : 0 °C ... +55 °C

Rated service temperature range (°C) for Ex Components .... : ---

(16) **Report number**
21CH-00125.X12

(17) **Specific conditions of use**

- Switching operations may be performed on the electrical circuits (Ex eb) only when the JUMO exTHERM-DR, including all supply lines, is de-energized.
- If it is installed in a separate electrical cabinet, the following warning must be attached to the outside of this electrical cabinet: WARNING: "Caution - This enclosure contains equipment that is part of an ignition protection system according to ISO 80079-37.

(18) **Essential health and safety requirements**
In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	**Subject**
None	

(19) **Drawings and Documents**
See test report "Manufacturer's Documents"