



CERTIFICATE OF CONSTANCY OF PERFORMANCE

0051-CPR-2816

In compliance with Regulation (EU) No. 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation, or CPR), this Certificate applies to the construction product

CONTROL AND INDICATING EQUIPMENT WITH INTEGRATED:

- POWER SUPPLY EQUIPMENT;
- ELECTRICAL AUTOMATIC CONTROL AND DELAY DEVICE
- INPUT/OUTPUT MODULE WITH SHORT CIRCUIT ISOLATOR

Model: **TSA1**
Trademark: **TECNOFIRE**
Other information: **See ANNEX**

Produced by:
TECNOALARM S.r.l.
Via Ciriè 38 – 10099 San Mauro Torinese (TO), Italy
in the manufacturing plant:
PI.0000TG

This Certificate attests that all provisions concerning the assessment and verification of constancy of performance and the performances described in Annex ZA of the standard(s)

**EN 54-2:1997 + A1:2006; EN 54-4:1997 + A1:2002 + A2:2006;
EN 12094-1:2003; EN 54-17:2005; EN 54-18:2005 + AC:2007**

Under system **1** are applied and that **the product fulfills all the prescribed requirements set out above**

ISSUED ON 27/10/2022

REVISION 0

B.U. PRODUCT CONFORMITY ASSESSMENT
CPR TECHNICAL DIRECTOR
(ENG. VALBERTO BAGGIO)

This certificate was first issued on 27/10/2022 and will remain valid as long as the test methods and/or factory production control requirements included in the harmonized standard, used to assess the performance of the declared characteristics, do not change, and the products, and the manufacturing conditions in the plant are not modified significantly.

This Certificate was issued by IMQ S.p.A., a Notified Body according to Regulation (EU) No. 305/2011. IMQ S.p.A. Identification Number is: **0051**. This certificate is subjected to the Regulation of Assessment and Verification of Constancy of Performance of the Construction Products as Notified Body, according to Regulation (EU) no. 305/2011 and Legislative Decree n.106/ 2017 (REG. ON / CPR)

ANNEX

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Configuration:

The equipment consists of metal enclosure with plastic front and the following parts:

- No. 1 CPU board with integrated alphanumeric LCD;
- No. 1 Key board;
- No. 1 Terminal board;
- No. 1 Switching power unit rated 28 V – 2.7 A, trademark TECNOALARM, model ALSW2827 with No. 2 Allocable batteries rated 12 V – 7 Ah.

The Control and Indicating Equipment can also be provided with the following external devices:

- Touch screen repeater model TFT-4.3C;
- Electrical automatic control and delay device with input/output and short circuit isolator model TSM1;

Technical Characteristics

- Degree of protection: IP30;
- Number of zone: 150 software zones;
- Number of detectors and/or manual call points: 298 on 1 loop line + 96 on 3 conventional input (32 for each conventional input);
- Number of flooding zone: 1, up to maximum of 10 (1 on the Control and Indicating Equipment model TSA1 and 1 on each the Electrical Automatic Control and Delay Device model TSM1, up to maximum of 9);
- Hardware identification of the microcontroller (U1) used on the CPU board of the Control and Indicating Equipment model TSA1: NXP, LPC4088FBD208;
- Firmware identification of the microcontroller (U1) used on the CPU board of the Control and Indicating Equipment model TSA1: 1.1.03;
- Hardware identification of the microcontroller (U2) used on the CPU of the Electrical Automatic Control and Delay Device model TSM1: ST, STM32F429ZET6;
- Firmware identification of the microcontroller (U2) used on the CPU of the Electrical Automatic Control and Delay Device model TSM1: 1.2.02.

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List of optional functions with requirements (EN 54-2)

- 7.8 Output to fire alarm device
- 7.10 Output to fire protection equipment
- 7.11 Delay to outputs
- 7.12 Dependencies on more than one alarm signal Type B
- 8.3 Fault signals from points
- 9.5 Disabling of addressable points
- 10 Test condition

List of optional functions with requirements (EN 12094-1)

- 4.17 Delay of extinguishing signal
- 4.18 Signal representing the flow of extinguishing agent
- 4.19 Monitoring of the status of components
- 4.20 Emergency hold device
- 4.21 Control of flooding time
- 4.22 Initiation of secondary flooding
- 4.23 Manual only mode
- 4.24 Triggering signals to equipment within the system
- 4.25 Extinguishing signals to spare cylinders
- 4.26 Triggering of equipment outside the system
- 4.27 Emergency abort device
- 4.28 Control of extended discharge
- 4.30 Activation of alarm devices with different signals

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