

**Certificate no. TAI-FS-C-20-0015**

WE HEREBY CERTIFY THAT

**Product description SAFETY PLC - FIRE AND GAS CENTRAL UNIT****Models S81-HS****Manufacturer SCAME SISTEMI S.r.l.**Via Lombardia 5  
I-20010 Arluno (MI)

IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE STANDARDS

**IEC 61508 Parts 1–7:2010****IEC 60079-29-3:2014**AS RESULT OF THE ASSESSMENT ACCORDING TO THE PROVISION  
SET OUT IN THE ABOVE-MENTIONED STANDARDS**Summary Report no. TAI-FS-R-20-0029****Expiry date 05.05.2023****Issue date 06.05.2020**

06.05.2020, Monte Roberto (AN)

Ing. Crescenzo Di Fratta

## Annex to certificate no. TAI-FS-C-20-0015

<b>Type</b>	B
<b>HFT</b>	<ul style="list-style-type: none"> <li>• mono configuration: HFT=0</li> <li>• duplex configuration: HFT=1</li> </ul>
<b>Safety functions</b>	<ol style="list-style-type: none"> <li>1. SF-1: Fire and gas detection and alarm transmission</li> <li>2. SF-2: Fire and gas detection and shutdown</li> <li>3. SF-3: Fire and gas detection and extinguishing</li> </ol>
<b>Mode of operation</b>	Low Demand Mode

Random failure rates			
Module	$\lambda_{DU}$ [1/h]	$\lambda_{DD}$ [1/h]	$\lambda_S$ [1/h]
S81-U1002	5,02E-07	4,91E-06	4,92E-06
S81-F3002	3,79E-09	2,51E-07	1,25E-09
S81-F4001	1,52E-08	2,05E-07	2,82E-08
S81-F4002	1,50E-08	2,14E-07	2,79E-08
S81-F4003	3,01E-09	3,44E-07	2,68E-09
S81-F5001 (E*)	2,93E-09	3,46E-07	1,71E-09
S81-F5001 (D*)	1,75E-09	1,94E-07	1,55E-07
S81-F5004 (E*)	2,69E-09	3,09E-07	1,67E-09
S81-F5004 (D*)	4,79E-09	1,90E-07	1,33E-07
S81-F6001	2,40E-09	2,00E-07	1,23E-09
S81-F7009	1,57E-08	5,32E-07	3,22E-08
S81-F7013	1,57E-08	5,32E-07	3,22E-08
S81-F7001	1,57E-08	5,32E-07	3,22E-08
S81-F7002	1,57E-08	5,32E-07	3,22E-08
S81-F7010	1,57E-08	5,32E-07	3,22E-08
S81-F7012	1,57E-08	5,32E-07	3,22E-08
S81-E2002	2,39E-09	3,04E-07	0,00E+00

E\*: Energise to trip / D\*: De-energise to trip

<b>Systematic capability</b>	3 (Route 1s applied)		
<b>Architectural constraints</b>	<b>Route 1H:</b>	Applied	<b>Route 2H:</b> Not applied
	The product can be used in: <ul style="list-style-type: none"> <li>• mono configuration: up to SIL 2</li> <li>• duplex configuration: up to SIL 3</li> </ul>		

**Remarks:**

- For further details, including environmental conditions, limitations of use, lifetime, failure rates traceability, mean repair times, common cause factors and systematic capability constraints, make reference to Safety Manual ST-071-IT.

END OF CERTIFICATE

