



Italia

# CERTIFICATE

[1] **EC-TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or Protective System intended for use  
in potentially explosive atmospheres  
Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

**TÜV IT 13 ATEX 009 X Rev.1**

[4] Equipment or Protective System: SDS Spark Detection and Extinguishing system  
Type: S80D and S80F

[5] Manufacturer: IMAL S.r.l.

[6] Address: Via R. Carriera, 63  
I-41126 S.Damaso (MO), ITALIA

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] TÜV Italia, notified body no. 0948 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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. R-13-EX-005 Rev.1.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0 : 2012      EN 60079-31 : 2009**

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:



II 1/2 D Ex ta/tb IIIB T80°C Da/Db      -10°C < Ta < +80°C

This certificate may only be reproduced in its entirety and without any change, schedule included.

Emission date: 31<sup>st</sup> March 2013  
Revision date: 26<sup>th</sup> January 2015



Approved  
Gennaro Oliva  
Industrie Service Director

TÜV Italia has been authorized by Italian government to operate as notified body for the certification of equipment or protective system intended for use in potentially explosive atmospheres.  
This document is not valid without official signature and logo. The internal reference code is 253033.



[13]

**SCHEDULE**



Italia

[14]

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**[15] Description of equipment**

The SDS system is realized for the spark detection and extinguishing and it is not an ATEX explosion protection system. It consists of:

- Electric MASTER box to control the system installed in a safe area or in zone 22 (not covered by this certificate)
- Local electric SLAVE boxes installed in a safe area (not covered by this certificate)
- Junction boxes installed in a safe area (not covered by this certificate)
- Extinguishing units consisting of water sprinklers
- Infrared sensor consisting of an outer casing (box) containing the electronics for the detecting system, a metal bushing with seal and quartz lens to "see" inside the duct on which the device is mounted and a cable gland

The detectors may be mounted in 2 different configurations:

- S80D mounted directly on the conveying duct (classified as zone 20) with part of the box on the outside of the duct in a classified zone like zone 21
- S80F are mounted on a separate support away from the duct. In this case the connection between the detecting system and box is accomplished with fibre optics with the box in a classified zone 21

**Rated characteristics**

SDS BUS	
Electric supply	110 / 240V 50/60Hz
Max power	Slave 4: 240W Slave 10: 480W CPU: 120W
Working temperature	-5 / +55°C

Spark detector model S80D	
Electric supply	24V ± 10%
Max current	100 mA
Working temperature	-30 / +80°C
Protection degree	IP65

Spark detector model S80F	
Electric supply	24V ± 10%
Max current	100 mA
Working temperature	-30 / +80°C
Protection degree	IP65

[13]

**SCHEDULE**



[14]

**EC-TYPE EXAMINATION CERTIFICATE no. TÜV IT 13 ATEX 009 X Rev.1**

**Warning label**

None.

[16] **Report no. R-13-EX-005 Rev.1.**

**Routine tests**

None.

**Listed documents (prot. 253033)**

Title:	Description:	Pages:	Rev:	Date:
ZGENA100025-DOC003	Fascicolo tecnico aggiuntivo n°003	04	03	01/2015
DSGNTAR0020	Disegno Targa ATEX	01	03	23/12/2014
SSENRDI0016	Disegno S80	01	01	22/12/2014
SSENRDI0017	Disegno S80D	01	01	n.a.
SSENRDI0018	Disegno S80F	01	01	n.a.
n.a.	Dichiarazione di conformità	01	05	01/2015

One copy of all documents is kept in TÜV Italia files.

[17] **Special conditions for safe use**

The equipment has been submitted to tests corresponding to the low risk of mechanical danger.

[18] **Essential Health and Safety Requirements**

Assured by compliance with the standards set out in the [9].