

(1) EU - Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU
- (3) EU - Type Examination Certificate Number

EPS 24 ATEX 1 308 U

Revision 0

- (4) Component: IS APL Field Device
- (5) Manufacturer: Analog Devices, Incorporated
- (6) Address: One Analog Way
Wilmington, MA 01887
USA
- (7) This component and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.
- (8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this component 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 of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 23TH0319_00.
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-11:2012

IEC 60079-11:2023

IEC TS 60079-47:2021

- (10) The sign "U" placed behind the certificate number indicates that this certificate shall not be confounded with certificates issued for equipment or protective systems. This certificate is valid for a component without an autonomous function in sense of article 2 (3) and does not authorize for the CE-marking to be applied according to article 13 (3) of the Directive. This component certificate only serves as a basis for the issuing of certificates for equipment or protective systems.
- (11) This EU - Type Examination Certificate relates only to the design and construction of the specified component in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this component and its placing on the market. Those requirements are not covered by this certificate.
- (12) The marking of the component shall include the following:

This Ex Component has no "Ex" marking as it is not offered separately for sale, but is solely for integration by the Ex Component manufacturer into their own Ex Components or Ex Equipment.



Certification department of explosion protection

Tuerkheim, 2025-06-03

Certifier

Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services Germany GmbH.



**BUREAU
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(13)

Annex

(14) **EU - Type Examination Certificate EPS 24 ATEX 1 308 U**

Revision 0

(15) Description of component:

The component/design has been tested against requirements corresponding to the following marking:

 II 1G Ex ia IIC Ga

The IS APL Field Device consists of an assembly of PCBs and terminals which provide intrinsically safe interfaces. It serves as a demonstration design especially for the use of the PMIC chip LT8440 for active power limitation in the sense of IEC 60079-47:2021.

For a final assembly within an explosion protected device, further evaluation will be required. See also section "Notes for manufacture, installation and operation" below.

Electrical Data APL Connector (2-WISE power load)

U_i = 17.5 V
I_i = 0.38 A
P_i = 5.32 W
C_i = 5 nF
L_i = 10 µH

Electrical Data Temp Connector

U_o = 6.4 V
I_o = 3.2 mA
P_o = 5.2 mW

Maximum values for external inductances and capacitances (applicable in combination):

Lo (mH)	1.0	0.2	0.1	0.01	0.001
Co (µF)	2.5	3.6	4.3	9.3	28.0

Electrical Data SPI Connector (Power Pin)

U_o = 6.4 V
I_o = 2722 mA
P_o = 674 mW

Maximum values for external inductances and capacitances (applicable in combination):

Lo (mH)	0.018	0.010	0.005	0.002	0.001
Co (µF)	4.3	6.9	11.0	22.0	28.0

Electrical Data SPI Connector (Signal Pins)

U_o = 6.4 V
I_o = 14.4 mA
P_o = 23.1 mW

Maximum values for external inductances and capacitances (applicable in combination):

Lo (mH)	1.0	0.2	0.1	0.01	0.001
Co (µF)	2.5	3.5	4.2	9.3	28.0

(16) Reference number: 23TH0319_00

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(17) Notes for manufacture, installation and operation:

The electrical circuits must be protected by encapsulation within the final device. Such an encapsulation is required for:

- protection against spark ignition (IEC 60079-11:2023, 6.6.2.1)
- protection against thermal ignition (IEC 60079-11:2023, 6.6.2.2)
- rating of electrical components from which the intrinsic safety depends (IEC 60079-11:2023, 6.6.6)
- application of separation distances through casting compound (IEC 60079-11:2023, Table 7, column 3)

The corresponding sections of EN 60079-11:2012 shall be applied in addition.

An enclosure is not part of this certification.

The full technical requirements of manufacturer's specification must be considered for the final device.

The local temperature range of $-40\text{ °C} \leq T_{\text{amb}} \leq +85\text{ °C}$ shall never be exceeded. The maximum surface temperature does not exceed 135 °C (for T4), if the end user fulfills all requirements.

This Ex Component has no "Ex" marking as it is not offered separately for sale, but is solely for integration by the Ex Component manufacturer into their own Ex Components or Ex Equipment.

(18) Essential health and safety requirements:

Met by compliance with standards.

Certification department of explosion protection

Tuerkheim, 2025-06-03



Certifier