

(1) **EU-Type Examination Certificate**
(2) **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres**

Directive 2014/34/EU

(3) EU – Type Examination Certificate Number: **IEP 16 ATEX 0448**

(4) Product: **End Line and In Line Flame Arresters ABS FA/2016 x Series**

(5) Firm Name: **ABS PV Endustriyel Valf Sanayi Ticaret A.Ş.**

(6) Firm Address: **Aydınlı Mah. Esenlik Sok. No: 6 Tuzla / İstanbul – TURKEY**

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

(8) The IEP Uluslararası Enerji Petrol Gözetim , Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Sti. , notified body number 2284 in accordance with Article 17 of the Directive 2014/34/EU of 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 Nr: IEP.Rp.Ex.10-1006 date 23.09.2016.

(9) Compliance with Essential Health and safety requirements has been assured by compliance with;

EN 16852:2010

(10) If the sign “ X “ is placed after the certificate number, it indicates that the product is subject to Specified Conditions of Safe Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the directive 2014/34/EU. Further requirements of the directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:

 **II ½ G IIA**

Responsible Person :

Nurettin Terzioğlu
Head of Certification Body



Date of Issue : 29.09.2016





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(13) Schedule

(14) Certificate Nr : IEP 16 ATEX 0448

(15) Description of Equipment;

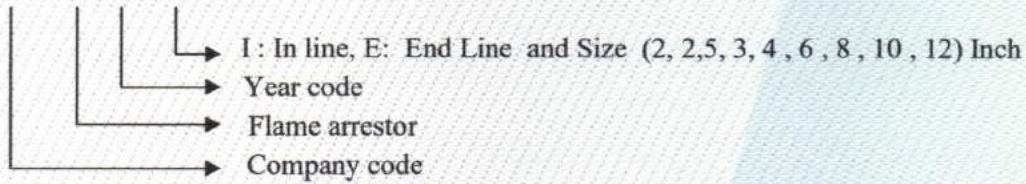
End line and In line flame arresters ABS FA/2016 x Series are a safety device that has a flame barrier with a large number of defined passage gaps, whose gap cross section is set with regard to the properties of the flowing gas, is cooled effectively and secured against a flame flashback in the case of continuous combustion. They are typically mounted to a flange or pipe, which connects the vapor space of a storage tank or a pipeline. Material used for housing aluminum, stainless steel, carbon steel ; teflon joints rings ; bolts covered with stainless cadmium. End line and in line flame arresters ABS FA/2016 x Series at the list used parts are available in the Table 1 and date 25.12.2015.

End line and In line flame arresters has been evaluated as 1 and 2 that be used danger area determined in the according to EN 60079-10-1. The inner part of zone 0.

(16) Technical Parameters: End line and In line deflagration flame arresters ABS FA/2016 x Series

Product Type	: ABS FA/2016 (I : inline and E : end line)
Nominal Diameter	: (2, 2,5, 3, 4 , 6 , 8 , 10 , 12) Inch
Working Pressure (Absolute)	: Po = 1,1 Bar
Range Of Flame Path	: 0,65 mm Max.
Interior Thickness Of Flame Arresters	: (20-40) mm .

ABS FA 2016 x



(17) X Essential Health and Safety Requirements:

17.1 This certificate is in the contents of standards that mentioned in item [9] It has been accepted that are manufactured according to the producer instructions and the standards mentioned above.

17.2 Informations of assembled working of End line and In line flame arresters ABS FA/2016 x Series end of line deflagration flame arresters with other related equipments exist in instruction manual with 15 pages approved and date 25.12.2016.

Responsible Person :

Nurettin Terzioglu
Head of Certification Body





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(18) Schedule and Certificate Nr : **IEP 16 ATEX 0448**

(19) Special Conditions for Safe Use: ABS FA/2016 (I : inline and E : end line) Installation details are in the manual, 12 page and date 25.12.2015.

(20) List of Documentation

ABS FA/2016 E : End line

<u>Drawing Nr:</u>	<u>Date:</u>	<u>Drawing Nr:</u>	<u>Date:</u>
ABS FA-02 E	18.01.16	ABS FA-06 E	18.01.16
ABS FA-02 A E	18.01.16	ABS FA-06 A E	18.01.16
FA-02/001	18.01.16	FA-06/001	18.01.16
FA-02-002	18.01.16	FA-06-002	18.01.16
FA-02-003	18.01.16	FA-06-003	18.01.16
FA-02/004	18.01.16	FA-06/004	18.01.16
FA-02/005	18.01.16	FA-06/005	18.01.16
FA-02/006	18.01.16	FA-06/006	18.01.16
FA-02/007	18.01.16	FA-06/007	18.01.16
FA-02/008	18.01.16	FA-06/008	18.01.16
FA-02/012	18.01.16	FA-06/012	18.01.16
FA-02/016	18.01.16	FA-06/016	18.01.16
ABS FA-02,5 E	18.01.16	ABS FA-08 E	18.01.16
ABS FA-02,5 A E	18.01.16	ABS FA-08 A E	18.01.16
FA-02,5/001	18.01.16	FA-08/001	18.01.16
FA-02,5-002	18.01.16	FA-08-002	18.01.16
FA-02,5-003	18.01.16	FA-08-003	18.01.16
FA-02,5/004	18.01.16	FA-08/004	18.01.16
FA-02,5/005	18.01.16	FA-08/005	18.01.16
FA-02,5/006	18.01.16	FA-08/006	18.01.16
FA-02,5/007	18.01.16	FA-08/007	18.01.16
FA-02,5/008	18.01.16	FA-08/008	18.01.16
FA-02,5/012	18.01.16	FA-08/012	18.01.16
FA-02,5/016	18.01.16	FA-08/016	18.01.16

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(21) Schedule and Certificate Nr : IEP 16 ATEX 0448

<u>Drawing Nr:</u>	<u>Date:</u>
ABS FA-03 E	18.01.16
ABS FA-03 A E	18.01.16
FA-03/001	18.01.16
FA-03-002	18.01.16
FA-03-003	18.01.16
FA-03/004	18.01.16
FA-03/005	18.01.16
FA-03/006	18.01.16
FA-03/007	18.01.16
FA-03/008	18.01.16
FA-03/012	18.01.16
FA-03/016	18.01.16
ABS FA-04 E	18.01.16
ABS FA-04 A E	18.01.16
FA-04/001	18.01.16
FA-04-002	18.01.16
FA-04-003	18.01.16
FA-04/004	18.01.16
FA-04/005	18.01.16
FA-04/006	18.01.16
FA-04/007	18.01.16
FA-04/008	18.01.16
FA-04/012	18.01.16
FA-04/016	18.01.16

<u>Drawing Nr:</u>	<u>Date:</u>
ABS FA-10 E	18.01.16
ABS FA-10 A E	18.01.16
FA-10/001	18.01.16
FA-10-002	18.01.16
FA-10-003	18.01.16
FA-10/004	18.01.16
FA-10/005	18.01.16
FA-10/006	18.01.16
FA-10/007	18.01.16
FA-10/008	18.01.16
FA-10/012	18.01.16
FA-10/016	18.01.16
ABS FA-12 E	18.01.16
ABS FA-12 A E	18.01.16
FA-12/001	18.01.16
FA-12-002	18.01.16
FA-12-003	18.01.16
FA-12/004	18.01.16
FA-12/005	18.01.16
FA-12/006	18.01.16
FA-12/007	18.01.16
FA-12/008	18.01.16
FA-12/012	18.01.16
FA-12/016	25.01.16

ABS FA/2016 I: In line

<u>Drawing Nr:</u>	<u>Date:</u>
ABS FA-02	18.01.16
ABS FA-02 A	18.01.16
FA-02/001	18.01.16
FA-02-002	18.01.16
FA-02-003	18.01.16
FA-02/004	18.01.16
FA-02/005	18.01.16
FA-02/012	18.01.16

<u>Drawing Nr:</u>	<u>Date:</u>
ABS FA-06	18.01.16
ABS FA-06 A	18.01.16
FA-06/001	18.01.16
FA-06-002	18.01.16
FA-06-003	18.01.16
FA-06/004	18.01.16
FA-06/005	18.01.16
FA-06/012	18.01.16

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(22) Schedule and Certificate Nr : IEP 16 ATEX 0448

<u>Drawing Nr;</u>	<u>Date;</u>	<u>Drawing Nr;</u>	<u>Date;</u>
ABS FA-02,5	18.01.16	ABS FA-08	18.01.16
ABS FA-02,5 A	18.01.16	ABS FA-08 A	18.01.16
FA-02,5/001	18.01.16	FA-08/001	18.01.16
FA-02,5-002	18.01.16	FA-08-002	18.01.16
FA-02,5-003	18.01.16	FA-08-003	18.01.16
FA-02,5/004	18.01.16	FA-08/004	18.01.16
FA-02,5/005	18.01.16	FA-08/005	18.01.16
FA-02,5/012	18.01.16	FA-08/012	18.01.16
ABS FA-03	18.01.16	ABS FA-10	18.01.16
ABS FA-03 A	18.01.16	ABS FA-10 A	18.01.16
FA-03/001	18.01.16	FA-10/001	18.01.16
FA-03-002	18.01.16	FA-10-002	18.01.16
FA-03-003	18.01.16	FA-10-003	18.01.16
FA-03/004	18.01.16	FA-10/004	18.01.16
FA-03/005	18.01.16	FA-10/005	18.01.16
FA-03/012	18.01.16	FA-10/012	18.01.16
ABS FA-04	18.01.16	ABS FA-12	18.01.16
ABS FA-04 A	18.01.16	ABS FA-12 A	18.01.16
FA-04/001	18.01.16	FA-12/001	18.01.16
FA-04-002	18.01.16	FA-12-002	18.01.16
FA-04-003	18.01.16	FA-12-003	18.01.16
FA-04/004	18.01.16	FA-12/004	18.01.16
FA-04/005	18.01.16	FA-12/005	18.01.16

For the validity of analysis type certificate , the parts that are used in End line and In line flame arresters ABS FA/2016 x Series is determined in confirmed for (2, 2,5 3, 4, 6, 8, 10, 12) inch, 25.12.2015 date, section table 1 part list .

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Date of Issue : 29.09.2016

