

Adapt-FS pre-volume deflagration flame arrester

Application

The Adapt-FS flame arrester prevents the propagation of flames on deflagration (subsonic combustion propagated through heat transfer) of explosive vapor/air or gas/air mixtures of explosion groups IIA, IIB and IIC. The upstream volume (e.g. of a pressure gauge) must be smaller than 0.2 l (see Fig. 2).

SAMSON pressure instruments, such as pressure transmitters, liquid level or differential pressure meters, pressure gauges and pressure switches, can be connected to zone 0 areas using the Adapt-FS flame arrester as an inline adapter.

Construction

The Adapt-FS flame arrester is designed as an inline adapter. It consists of a body with a G ½ threaded connection on both sides and a welded-in stainless steel capillary functioning as the flame arrester. The capillary with a 0.6 mm inside diameter and 23 mm in length allows vapor/air or gas/air mixtures to flow through it, but prevents the propagation of flames.

Conditions for hazardous areas

The Adapt-FS flame arrester meets the requirements of the harmonized standard ISO 16852 concerning flame arresters as a non-electrical equipment for potentially explosive areas.

It is tested and approved to be resistant to flame propagation on the deflagration of flammable gases and fluids according to the EC type examination certificate PTB 12 ATEX 4001 X with type of protection  IIG IIC

The adapter body is marked according to 94/9/EC (ATEX).



Fig. 1: Adapt-FS pre-volume deflagration flame arrester

Ordering data

Adapt-FS pre-volume deflagration flame arrester · Inline adapter with G ½ female thread and G ½ B male thread, CrNi steel 1.4571 · Suitable for connection to zone 0
Order no. **8521-1002**

Accessories

Seals for connection G ½:

- Flat copper seal according to DIN EN 837-1 6.2 x 17.5 · Order no. **8521-1000**
- Corrugated gasket made of 1.4571 according to DIN 19207 · 11.2 x 17 · Order no. **8521-0521**

SAMSON instruments that can be combined with Adapt-FS

SAMSON pressure instruments (examples) that can be connected to zone 0 areas using the Adapt-FS flame arrester:

- Type 3435 Pressure Transmitter
- Type 3804 Pressure Transmitter
- Media 5 Differential Pressure Transmitter without limit switches
- Electric pressure transmitters, Ex i version
- Pressure switches, Ex e, Ex d versions
- Pressure gauges etc.

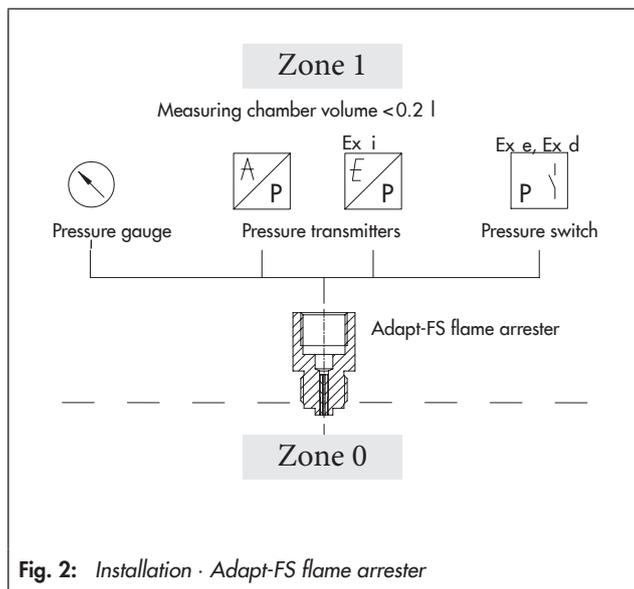


Fig. 2: Installation · Adapt-FS flame arrester

Installation

The following points must be observed during installation and assembly:

- The measuring chamber volume of the connected pressure instrument downstream of the Adapt-FS flame arrester must be smaller than 0.2 l.
- The leak tightness of joints between the process fluid connection of the instrument and the connection to the plant must meet the requirements of the separation of zones.
- The joint must be reliably protected against becoming accidentally untightened. The plant operator is responsible for taking the necessary measures.
- Suitable seals which are resistant to the process media which are used at the joints. To seal the pressure connections with parallel thread shanks, flat gaskets according to EN 837-1 or profile gaskets must be used.

As a general rule, observe the instructions specified in the manual B 29 provided the manufacturer Armaturenbau GmbH.

Dimensions (in mm)

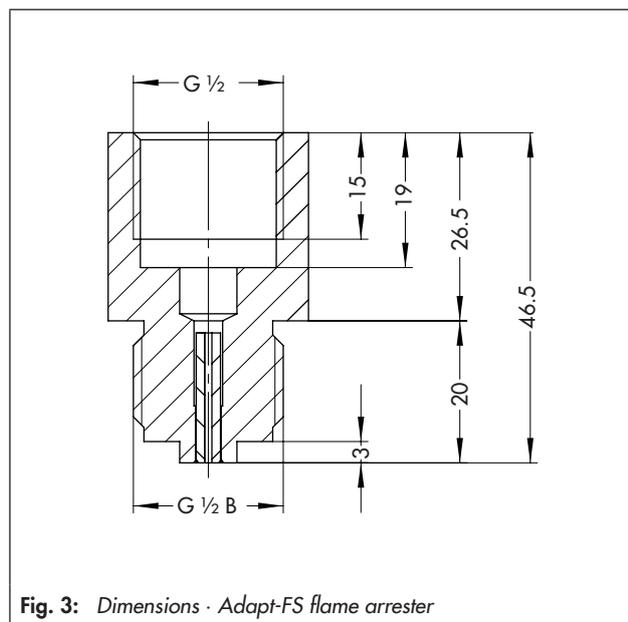


Fig. 3: Dimensions · Adapt-FS flame arrester

Specifications subject to change without notice

