

# Deflagration Volume Protection Device (Flame Penetration Protection)



Model **Adapt FS**

## Function

The deflagration volume protection model "Adapt FS" avoids a flame penetration at deflagrations of potentially explosive vapor-air-resp. gas-air mixtures of explosion hazardous IIA, IIB and IIC in an upstreamed volume (e.g. pressure measuring instruments, chemical seals or similar).

## Construction

The protection consists of a welded stainless steel cannula as flame arrester. The vapor-air- resp. gas-air mixture can flow through the cannula with a maximum internal diameter of 0.6 mm (0.024") and at least 23 mm (0.91") length, but a flame penetration is avoided.

Dimensional drawings of the construction types (variants) for the different installation options can be found on the reverse side of this data sheet.



## Explosion Protection

The deflagration volume protection device model "Adapt FS" corresponds as non-electrical equipment for potentially explosive areas with the harmonised norm

## DIN EN ISO 16852 "Flame Penetration Protection".

It is examined and approved as flame penetration protected at deflagration of flammable gases and liquids according to

## EC-Type Examination Certificate / Approval

PTB 12 ATEX 4001 X

## Explosion Protection Class

IIG IIC

The corresponding marking according to ATEX 94/9/EG is made at a suitable position of the instrument.



Adapt FS  
Variant 1

## Variants

Variant 1: as screw-adapter G $\frac{1}{2}$  internal x G $\frac{1}{2}$  (1/2" BSP) (others upon request) e.g. for PTMEx, DS 9812

Variant 2: directly mounted on

- food- / aseptic chemical seals (MDM 73..)
- screw-in chemical seals (MDM 74..)
- flange chemical seals (MDM 7510-7525)
- in-line seals (RDM 76..)
- other chemical seals

Variant 3: with capillary line mounted on

- food- / aseptic chemical seals (MDM 73...)
- screw-in chemical seals (MDM 74..)
- flange chemical seals (MDM 7510-7525)
- cellular type chemical seals (MDM 7550-7565)
- in-line seals (RDM 76..)
- other chemical seals

Variant 4: Form 4a (c-form) or 4b (22 square box wrench), mounted to

- diaphragm pressure gauge lower parts
- diaphragm chemical seals lower parts (MDM 72..)
- t-fittings and others

Variant 5: welded in the pressure gauge socket

## Material

Standard: cannula 1.4571 (316 stainless steel)  
socket 1.4571 (316 stainless steel)

Options: upon request

## Ordering Information:

When installing into a measuring instrument or another chemical seal, the ordering code of the instrument is extended by

- with Adapt FS

When ordering as component part, please indicate

- model: **Adapt FS**
- variant no. **1** (variants 2-5 upon request)
- specifics (upon request)



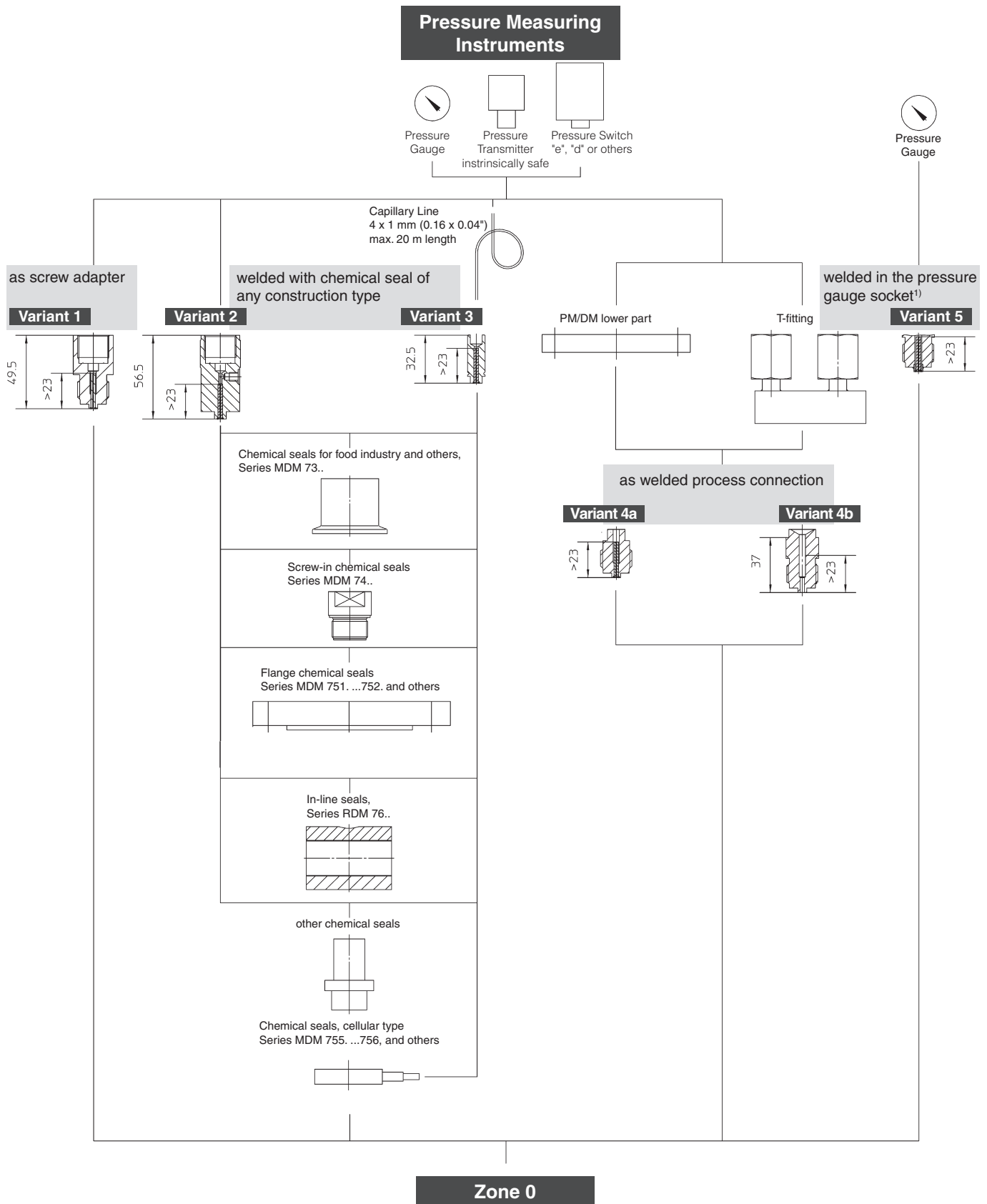
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**11001**  
**03/12**

# Variants and Installation Options



**ATTENTION, applied to all variants:**

Volume behind flame penetration protection Adapt FS < 0.2 l.

To fulfil the requirements to the zone separation, the technical density of the connections between the process connection and the machine side of the process connection have to be secured. The connection has to be protected reliably against accidental loosening. The plant operator is responsible for the necessary steps.