Flame Arrester
(Flame Penetration Protection)

Model **Adapt FS**

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

Construction
The protection consists of a welded in 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. A flame penetration, however, 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 flame arrester model "Adapt FS" as non-electrical equipment for potentially explosive areas, corresponds to the harmonised norm

DIN EN ISO 16 852 "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/EC is made at a suitable position of the instrument.

Variants

Variant 1: as screw-adapter G ½ internal x G ½ (½" BSP) (others upon request), e.g. for PTMEx, DS 9812

Variant 2: directly mounted to
- food / aseptic chemical seals (MDM 73..)
- screw-in chemical seals (MDM 74..)
- flange type chemical seals (MDM 7510 – 7525)
- in-line seals (RDM 76..)
- other chemical seals

Variant 3: with capillary line mounted to
- food / aseptic chemical seals (MDM 73...)
- screw-in chemical seals (MDM 74..)
- flange type 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

Adapt FS
Variant 1

Material

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

Ordering Information

When installed in a measuring instrument or a chemical seal, the ordering code of the instrument is supplemented 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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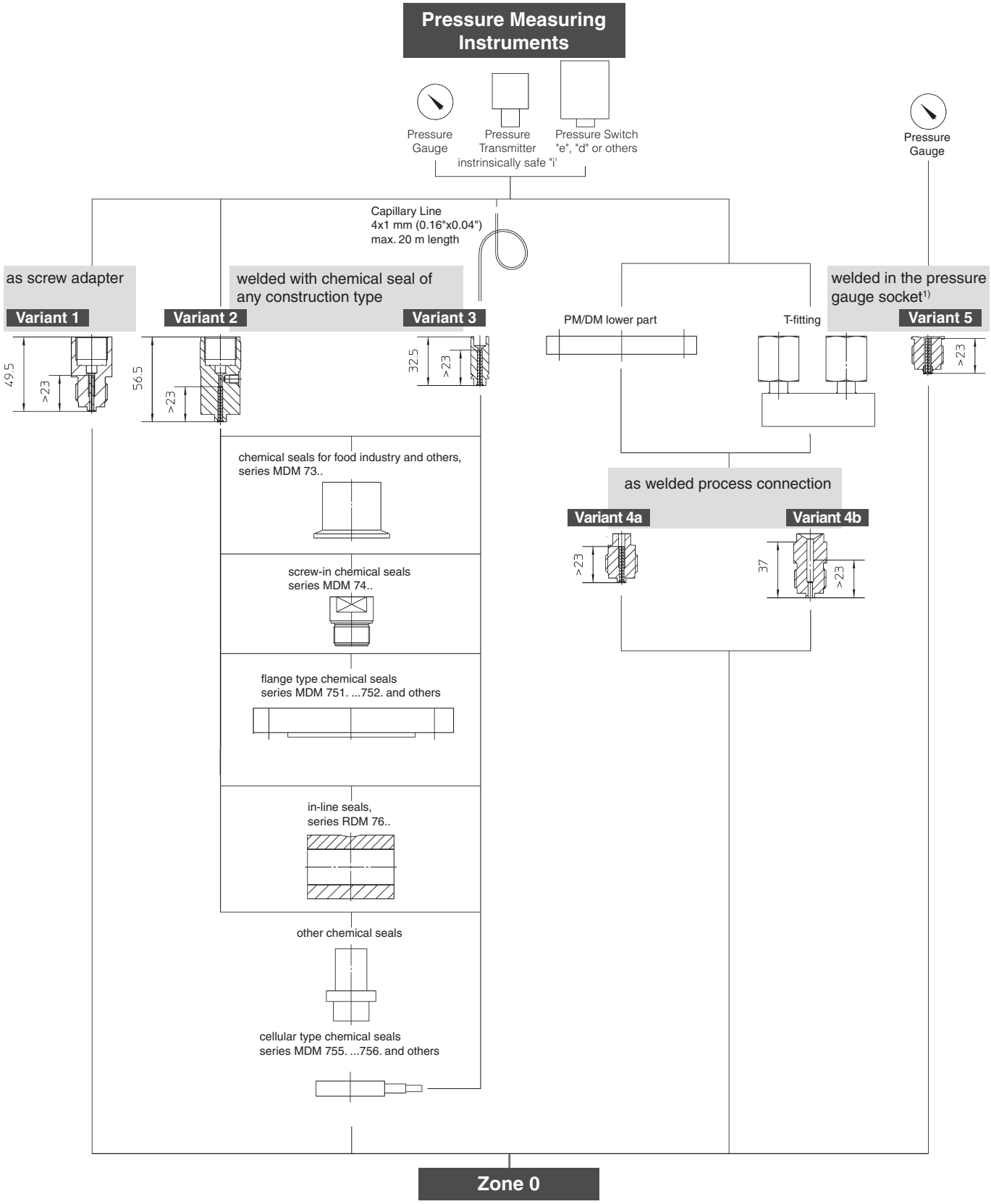
Variants and Installation Options



ATTENTION, the following applies to all variants:

- Volume behind flame penetration protection Adapt FS < 0.2 l.
- With screw adapters, the maximum tube length of the unprotected side between the possible ignition source (instrument) and the protection should not exceed 3 x DN = 45 mm (1.77").
- With screw adapters, the maximum tube length of the unprotected side should not exceed DN 15 (G½").
- The combustible gases resp. fluids arising during operation, belong to the explosion group IIA, IIB or IIC with a maximum experimental safety gap (MESG) of > 0.29 mm.
- The operating pressure must lie between 0.8 bar abs. and 1.1 bar abs.[2)]
- The operating temperature must lie between -20 °C (-4 °F) and 60 °C[2)] (140 °F).
- In order to fulfil the requirements of the zone separation, the technical density between the process connection of the measuring instrument and the process connection piece on the machine side has to be ensured. The connection has to be secured reliably against unintentional release. The plant operator is responsible for taking the necessary measures.

[1)] With process connections G ½ B (½" BSP) and M 20x1.5, others upon request.
[2)] Atmospheric conditions.
Our instruments are constantly refined, therefore changes are excepted.

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