

FDR-3G-EX

Atex Fire Damper FDR-3G

Item number: [A-FDR-3G-EX](#)

Description

Atex fire dampers represent passive fire protection, designed with the help of compartmentalization to prevent the spread of toxic gases, smoke and fire. Standard fire dampers are designed and certified in accordance with EN 15650 and tested for EIS criteria according to EN 1366-2. Fire dampers together with their installation form an inseparable part of a fire resistivity rating. This Atex version is modified by the 2014/34/EU directive, which sets out the technical requirements for equipment and protective systems intended for use in potentially explosive atmospheres. Atex fire dampers are designed for group II category 2 G and 2 D against the ignition of gas explosion group IIB and dust explosion group IIIB, temperature class T85 °C...T100 °C for Db or temperature class T6...T5 for Gb. Equipment Protection Level Gb and Db according to EN ISO 80079-36:2016.

Highlights

- Lightweight construction
- Tightness class 3C as standard
- Suitable for Gas and Dust explosive atmosphere
- Inspection opening built-in
- Great variety of installations rated up to EI120S

Activation Types Manually Operated Fire Dampers

By default, all manually operated fire dampers are supplied with a hand crank, optionally with microswitches. In case of fire, the fire damper is closed automatically after the melting of the thermal fuse. After the closing of the damper blade, it is mechanically locked in the closed position and can only be opened manually. The actuating mechanism is activated when the temperature of the air in the duct reaches 74°C and the damper closes within 10 seconds after the melting of the fuse.

- H0-EX - Zone: 1, 2 (Gb), 21, 22 (Db)

Atex fire damper with an activation mechanism with a conductive plastic cover, manual crank and with a spring return release mechanism activated by a fusible thermal link set to 74°C (on demand 100°C).

- H2-EX - Zone: 1, 2 (Gb, limit T6), 21, 22 (Db, limit T85°C)

Atex fire damper with an activation mechanism H0-EX + open and closed indication with AC 230 V or AC/DC 24 V contact atex rated switches. Atex temperature class reduced to T85°C in Db and T6 in Gb.

Actuator Operated Fire Dampers

By default, all actuator operated fire dampers are supplied with an actuator with microswitches. A fire damper equipped with a spring return actuator can be closed with command from the building management system, or after the breaching of the thermoelectric fuse. Actuator operated fire dampers are standardly equipped with a thermoelectric fuse, which activates the closing of the damper after the reaching or exceeding of the ambient temperature of 72°C. The actuator power circuit is interrupted and its spring closes the damper blade within 20 seconds.

- SET-EX - Zone: 1, 2 (Gb), 21, 22 (Db)

Atex fire damper with an activation mechanism with atex rated Schischek ExMax spring return actuator (with universal supply unit 24...240 V AC/DC) with electro-thermal fuse 72°C and auxiliary switches.

- SRT-EX - Zone: only 2 (Gc), 22 (Dc)

Atex fire damper with an activation mechanism with atex rated Schischek RedMax spring return actuator (with universal supply unit 24...240 V AC/DC) with electro-thermal fuse 72°C and auxiliary switches.

Design

Fire dampers have casings made from galvanized sheet metal. Blades from non-asbestos insulants have a rubber seal for cold smoke and an intumescent seal, which expands in a fire situation. All moving parts are conductively connected to eliminate electric charges.

Material Composition

The product contains galvanized sheet metal, calcium silicate board, fireproof carbon fiberglass, polyurethane foam and ethylene - propylene rubber. These are processed in accordance with local regulations. The product contains no hazardous substances, except for the solder in the thermofuse, which contains a milligram of lead.

List of Accessories

Detailed information about accessories for FDR-3G...EX is available in SystemairDESIGN under Fire Damper Accessories.



- AM-FD: Activation Mechanisms
- CBR-FD: Cover Boards
- IPOR-FD: Insulation Cover Plates

Specific Conditions of Use:

- The fire damper is suitable for the use with the ambient temperature $T_a = 0^{\circ}\text{C}/+60^{\circ}\text{C}$. In case of additional electrical equipment (limit switch, temperature sensor, servo-drive) the temperature range is reduced according to the range of the used device.
- The electrical devices installed together with the damper must have the type of protection corresponding with the defined zone.
- The temperature class of the equipment is dependent on the temperature of the flowing medium according to the table:

The maximum temperature of flowing medium 60°C:

- Initialization temperature of heat fuses: $\geq 72^{\circ}\text{C}$
- Temperature class: T6

The maximum temperature of flowing medium 85°C:

- Initialization temperature of heat fuses: $\geq 100^{\circ}\text{C}$
- Temperature class: T5

Technical parameters

Dimensions and weights

Weight	1	kg
--------	---	----

Accessories

- CBR-FD (A-CBR-FD)
- IPOR-FD (A-IPOR-FD)
- FAR (A-FAR)
- SSAR (A-SSAR)

Documents

- 1396_CPR_0162__en-GB_
- Certificate_FDR-3G...EX_FTZU-20-ATEX-0035X_EN
- DeclarationOfPerformance_FDR-3G_D_EN__en-GB_
- EUC-ExMax__en-GB_
- EUC-ExPro-TT
- EUC-RedMax__en-GB_
- ExMax-S-BF_en__en-GB_
- Form_OperatingJournal_FireDampers_EN_201908
- HandBook_FDR_3G_EX__EN__2021-04-27__en-GB_
- RedMax-S-BF_en__en-GB_