



Fire and explosion protection

FLEX F PRO

If there is an explosive atmosphere in the form of a swirling cloud of dust and if this cloud comes in contact with a source of initiation, an explosion may occur immediately.

To protect technology, the so-called explosion relief device opens to allow the flame, dust, and fumes to escape into the environment, resulting in a drop in explosive pressure below the threshold to ensure that technology is not damaged.

Release of explosion into the environment is not suitable for applications where the released explosion may cause damage to health or property (for example inside buildings). In this case, it is necessary to use the device for flameless relief, FLEX.

The FLEX consists of an explosion relief device with an opening signal and a FLEX body welder that holds a so-called flame filter that prevents the flame transfer explosion device from opening when the flame is released into the environment.

The FLEX F is designed in accordance with European Directive 2014/34 / EU.



DATA SHEET



| FLEX SPECIFICATION | |
|---|--------------------|
| Equipment group | II |
| Explosive atmosphere | D |
| Equipment category, interior / exterior | 1 D 3G / 3G D |
| Zone - interior | 20, 21, 22 |
| - exterior | 2, 22 |
| Max K _{st} – organic dust | 220 to 235 bar m/s |
| Ambient temperature | -20°C to 60°C |
| Operating temperature | -20°C to 100°C |
| Storage temperature | 10°C to 40°C |
| P _{red max} | to 0,4 bar |

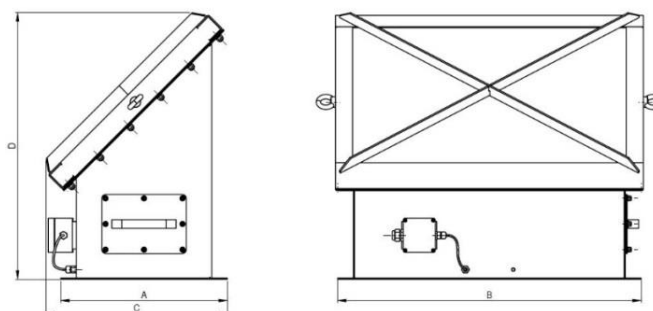
| MATERIAL DESIGN | |
|--------------------------|---|
| Body | Structural steel, with the surface treatment RAL 9005 (black). Different colours can be supplied upon the customer request. |
| Flame filter | Stainless steel |
| Explosion venting device | Stainless steel. Together with position sensor is an integral part of FLEX. Glued. |
| Flange gasket | EPDM. Supplied with FLEX |
| Bolting material | Screws ISO 4017 – 8.8, nuts ISO 4070 – 8, washers ISO 7090 All supplied with FLEX. Galvanized. |





| OPTIONAL ACCESSORIES | |
|------------------------------|--|
| The protective bag | The protective bag is intended to cover the functional area of the FLEX flame filter, of any penetration of foreign particles in the filter meshes reducing. The protective bag is recommended for the use in dusty premises. In the case of explosion, the bag breaks and the energy is absorbed without any disturbance. |
| The intrinsically safe relay | Forms the interface between the safe and hazardous zones. |
| The special flange gasket | In addition to a standard flange packing, seals can also be supplied from special materials that suit exactly the customers application. |

Dimensional scheme:



| TYPE | Code | A [mm] [(in)] | B [mm] [(in)] | C [mm] [(in)] | D [mm] [(in)] | d – opening diameter [mm] | n – number of openings [ks] | Weight [kg] [(lbs)] |
|---------|-------------|---------------|---------------|---------------|---------------|---------------------------|-----------------------------|---------------------|
| FLEX F1 | F-FML-F1-D | 225 (14,8) | 675 (26,6) | 265 (10,4) | 465 (18,3) | 14 | 20 | 24 (53) |
| FLEX F2 | F-FML-F2-D | 305 (20,7) | 625 (24,6) | 335 (13,2) | 530 (20,9) | 14 | 18 | 28 (62) |
| | F-FML-F2-SU | | | | | | | |
| FLEX F3 | F-FML-F3-D | 390 (23) | 710 (28) | 420 (16,5) | 620 (24,4) | 14 | 18 | 35 (77) |
| | F-FML-F3-SU | | | | | | | |



The exploded view of the flat FLEX
(1 – FLEX, 2 – flange gasket, 3 – bolting materials, 4 – protected technology)

