



## FLEX II R – FLAMELESS EXPLOSION VENTING DEVICES



This is a safety device designed to relieve and release explosions developing inside a protected device that is in an explosive environment. In the event of an explosion, FLEX captures the explosive energy (flame, pressure) emerging from the open explosion relief device. Thanks to the special design of the flame filter, it cools the temperature of the flame and exhaust gases during the explosion to a level that is no longer dangerous to technology and to people in the proximity.

FLEX II R consists of the VENT PRO explosion relief device and the welded FLEX II body equipped with a flame filter. It is equipped with an opening indicator for electronic signaling of the VENT PRO breach.

This data sheet describes the technical parameters of the FLEX II R device, which has a rectangular base. They are manufactured with the standard EN 16009 and European Directive 2014/34/EU.

### FLEX II CLASSIFICATION

|                                    |  |       |
|------------------------------------|--|-------|
| Equipment group                    | II                                       |       |
| Explosive atmosphere               | D  |       |
| Equipment category, indoor/outdoor | 1 D 3G / 3G D                            |       |
| Zone                               | indoor                                   | 20    |
|                                    | outdoor                                  | 2, 22 |
| Max. $K_{st}$ - non metallic dust  | $\leq 312$ bar m/s                       |       |
| Ambient temperature                | -40 °C to 60 °C                          |       |
| Operating temperature              | -40 °C to 100 °C (optional up to 240 °C) |       |
| Storage temperature                | -10 °C to 40 °C                          |       |
| $P_{red,max}$                      | $\leq 2,5$ bar                           |       |

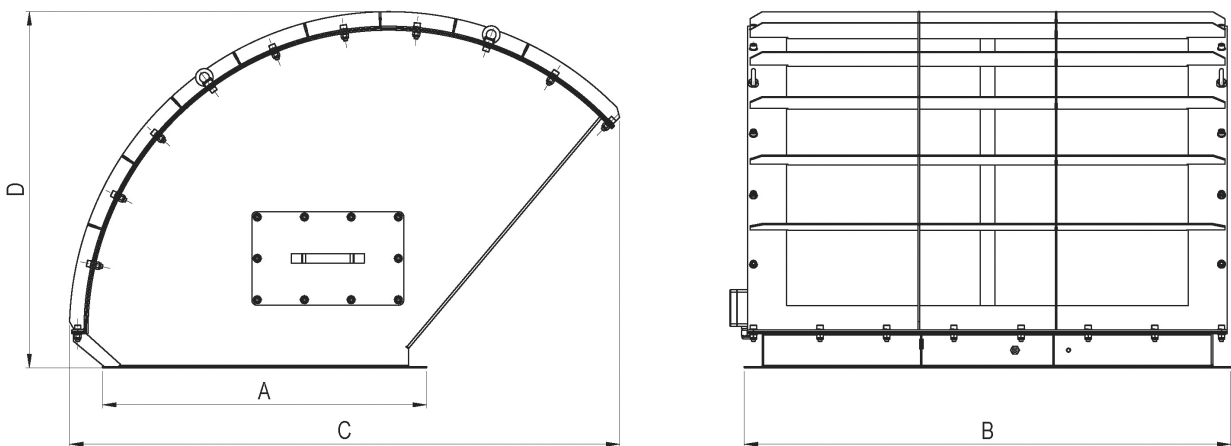
### MATERIAL

|                          |  |
|--------------------------|--|
| Body                     | structural steel material with RAL 9005 (black) powder coated finish, other colors can be supplied depending on customer requirements, optional all-stainless design                               |
| Flame filter             | stainless steel  |
| Explosion venting device | stainless steel<br>it is also an integral part of FLEX, to which it is attached with adhesive, including the opening indicator   |
| Flange gasket            | EPDM<br>supplied with FLEX   |
| Fasteners                | screws ISO 4017 – 8.8, nuts ISO 7040 – 8, washers ISO 7089<br>all is supplied with galvanized fasteners<br>(for the all-stainless steel version, the connecting material is stainless steel A2-70) |

### OPTIONAL ACCESSORIES

|                          |   |
|--------------------------|---|
| Protective bag           | it is used to cover the working surface of the FLEX II flame filter to prevent foreign particles from entering the filter screens, It is recommended for use in dusty environments., In the event of an explosion, the bag will rupture and the energy absorption process will be uninterrupted |
| Intrinsically safe relay | it creates an interface between the safe and unsafe zone  |
| Special flange gasket    | in addition to the standard flange gasket, gaskets made from special materials precisely suited to the customer's specific application can also be provided   |

### DIMENSIONS SCHEME



| Type                   | Code            | A<br>[mm]<br>[(in)] | B<br>[mm]<br>[(in)] | C<br>[mm]<br>[(in)] | D<br>[mm]<br>[(in)] | d - screw<br>holes<br>diameter<br>[mm] | n - number<br>of bolt holes<br>[pcs.] | Weight<br>[kg]<br>[(lbs)] |
|------------------------|-----------------|---------------------|---------------------|---------------------|---------------------|--|---------------------------------------|---------------------------|
| FLEX II R 630x310 VPD  | R-FLM-II-R1-VPD | 390                 | 710                 | 635                 | 410                 | 12                                     | 18                                    | 48<br>(105)               |
| FLEX II R 630x310 VPT  | R-FLM-II-R1-VPT | (15,4)              | (28)                | (25)                | (16,1)              | 12                                     | 18                                    | (105)                     |
| FLEX II R 450x800 VPD  | R-FLM-II-R2-VPD | 540                 | 890                 | 900                 | 580                 | 12                                     | 22                                    | 92<br>(203)               |
| FLEX II R 450x800 VPT  | R-FLM-II-R2-VPT | (21,3)              | (35)                | (35,4)              | (22,8)              | 12                                     | 22                                    | (203)                     |
| FLEX II R 586x920 VPD  | R-FLM-II-R3-VPD | 666                 | 1000                | 1130                | 735                 | 12                                     | 34                                    | 133<br>(293)              |
| FLEX II R 586x920 VPT  | R-FLM-II-R3-VPT | (26,2)              | (39,4)              | (44,5)              | (28,9)              | 12                                     | 34                                    | (293)                     |
| FLEX II R 915x1118 VPD | R-FLM-II-R4-VPD | 996                 | 1198                | 1660                | 1070                | 12                                     | 42                                    | 245<br>(540)              |
| FLEX II R 915x1118 VPT | R-FLM-II-R4-VPT | (39,2)              | (47,2)              | (65,4)              | (42,1)              | 12                                     | 42                                    | (540)                     |