RSV explosion protection slide valve

The actively controlled RSV offers safe explosion isolation in a wide range of applications – without any pressure drop and with the shortest closure times. The RSV also meets the highest hygiene requirements in food and pharmaceutical applications.

Your added value:

- Wide range of applications resulting from highest design diversity and broad certification
- Flexible pipe planning thanks to shortest installation distances – guaranteed due to fastest closure times
- Highest process performance as there is no pressure drop due to free slide passage
- Flexible installation due to any installation position and compact design
- Durability thanks to selected materials
- Can be used in product-carrying lines as high dust loads are permissible
- Insensitive to dirt from outside and optimal cleanability thanks to IP65 protection class

Operating principle:

In the basic position, the slide valve is in the "open" position. The medium can flow unhindered through the slide valve.

If an explosion is detected by the control system, the gas generator(s) is/are activated and the slide valve is closed.

The slider is held in the "closed" position.

Approvals and conformities:

ATEX
EG-Baumusterprüfbescheinigungen:
- FSA 17 ATEX 1669 X
- FSA 17 ATEX 1670 X
- FSA 17 ATEX 1671 X
- FSA 17 ATEX 1672 X
- FSA 17 ATEX 1673 X
- FSA 17 ATEX 1674 X
- FSA 18 ATEX 1692 X

Geprüft nach EN 15089
Entspricht NFPA 69

FDA
Entspricht FDA Anforderungen
Entspricht EG 1935:2004 Anforderungen

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Specifications and design:

Versions:

- RSV-D (DN50-DN500; dual acting)
  - Suitable for underpressure
- RSV-G (DN50-DN400; dual acting)
  - Suitable for under and overpressure
- RSV-P (DN50-DN200; dual acting)
  - Suitable for under and overpressure

Admission spectrum[1]:

	RSV-D	RSV-G	RSV-P
Gas type	-	IIB[2]	IIB[2]
Dust type	Organic / Metallic (Aluminium)	Organic / Metallic (Aluminium)	Organic / Metallic (Aluminium)
K_{ST}	DN50-DN300 ≤ 600 bar m/s (organic & metallic) DN400 ≤ 220 bar m/s (metallic) ≤ 300 bar m/s (organic) DN500 ≤ 300 bar m/s (organic)	DN50-DN300 ≤ 600 bar m/s (organic & metallic) DN400 ≤ 300 bar m/s (organic)	DN50-DN300 ≤ 600 bar m/s (organic & metallic) DN400 ≤ 300 bar m/s (organic)
K_G	-	≤ 100 bar m/s	≤ 100 bar m/s
$K_{Hybrid\ mixtures}$	-	≤ 500 bar m/s (DN50-DN300)	≤ 500 bar m/s

Applicable in zones:

Inner zone	Outer zone[3]
- 0 / 20	- None
- 1 / 21	- 1 / 21
- 2 / 22	- 2 / 22

Installation position:
- Any; even upside down

Housing material:
- Stainless steel 1.4301

Passage material:
- Stainless steel 1.4301 or 1.4404

Flange design of connecting flanges:
- EN 1092-1 / PN10
- ASME B16.5 Class 150 – ANSI
- Various GMP versions for RSV-P

Min./Max. Operating temperature:
- +5°C to 200°C

Min./Max. Ambient temperature
- +5°C to +60°C

Switch for position signalling:
- Two switches for indication of “open”/”closed” position
- Two switches for indication of “in operation” / “secured” position

[1] The approval and K value depend on the design and nominal width – for detailed information see installation guideline MT0009
[2] Exception DN400: IIA
[3] The outer zone depends on the attachments used.

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RSV-P for with pharmaceutical trolley:

- Thanks to its design, the RSV-P is ideally suited for applications with high demands on hygiene
- Optimal cleaning results indoors and outdoors due to polished surfaces and rounded edges
- Sealed casing of all attachments
- Proven tightness against the environment

- Optionally available with pharmaceutical trolley, ideal for use close to the ground

Pneumatic box:

- The pneumatic box is available for all RSV explosion protection slides and is suitable for pneumatic control from a distance.
- The pneumatic box is recommended especially for tight spaces or inaccessible installation locations.

RSV-G/-P with inliner:

- Prevents liquids, gases and dusts from entering the enclosure interior at higher overpressure and during cleaning
- Application for CIP processes, moisture or highly toxic substances
- The inliner is made of conductive PTFE and is FDA approved
- Overpressure application with inliner up to max. 6 bar

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External dimensions RSV-D and RSV-G:

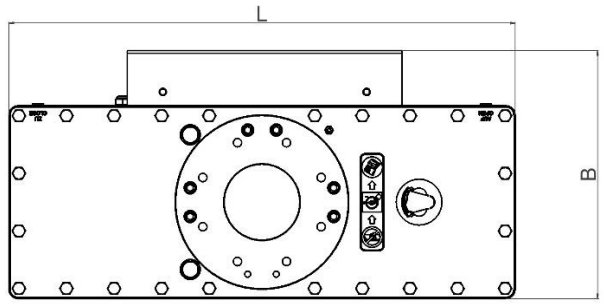
Dimensions in mm Flange connection according to DIN EN 1092-1	Nominal width										
	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN400	DN500
Length [L]	830	830	830	830	830	830	1358	1358	1358	1710	1944
Width [B]	405	405	405	405	405	405	600	600	600	740	840
Total height RSV [H]	175	175	175	175	175	175	210	210	210	310	310
Housing height [GH]	40	40	40	40	40	40	50	50	50	60	60
Flange height [FH]	100	100	100	100	100	100	110	110	110	120	120
Net weight [in kg]	107	105	104	102	99	95	293	280	261	512	650

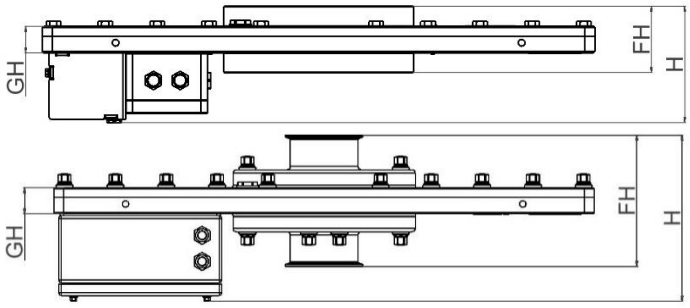
All dimensions are in mm, unless otherwise indicated

External dimensions RSV-P:

Dimensions in mm Flange connection according to DIN 32676	Nominal width						
	DN50	DN65	DN80	DN100	DN125	DN150	DN200
Length [L]	830	830	830	830	830	830	1358
Width [B]	440	440	440	440	440	440	600
Total height RSV [H]	255	255	255	255	255	255	280
Housing height [GH]	40	40	40	40	40	40	50
Flange height [FH]	200	200	200	200	200	200	240
Net weight [in kg]	107	105	104	102	99	95	293

All dimensions are in mm, unless otherwise indicated





Further and supplementary information:

- MT0009GB_Einbaurichtlinie RSV (Installation Guideline RSV)
- MB0004GB_Betriebsanleitung RSV (Operating Instructions RSV)
- MB0012GB_Betriebsanleitung Pneumatikbox (Operating Instructions Pneumatic Box)
- MD0003GB_Transportverpackung_RSV (Transport Packaging RSV)
- MD0026GB_Inliner RSV-G_RSV-P (Inliner RSV-G_RSV-P)
- MD0019GB_Schliesszeiten-Übersicht RSV (Closure Times Overview RSV)