

BADA-FAB - Certified ATEX non-return valve



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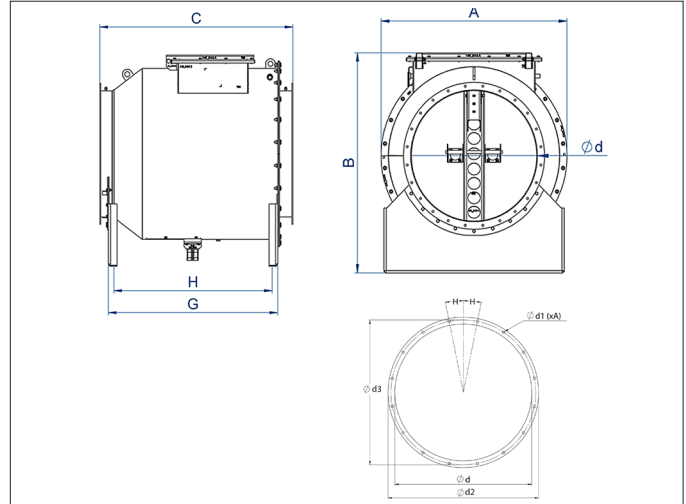
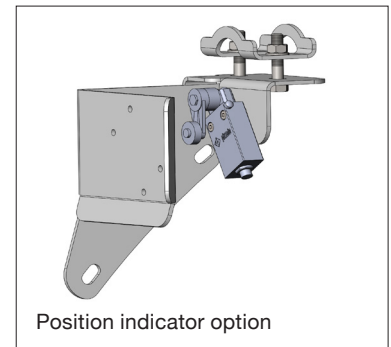
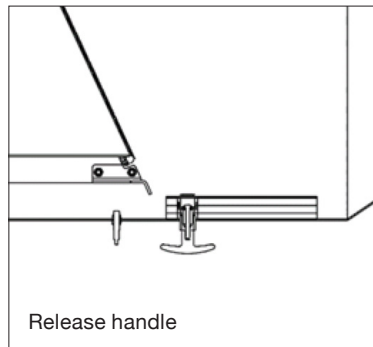
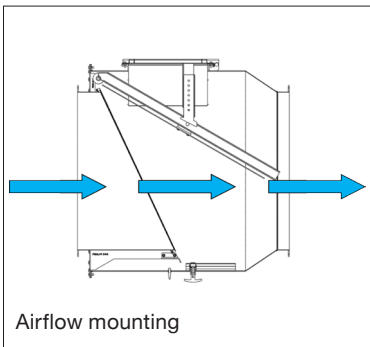
An explosion involves not only the immediate processed material, but can also propagate to the rest of the process. This propagation can be avoided if the affected processed material is quickly isolated by a non-return valve.

The BADA-FAB non-return valve is designed to separate the filter from the plant. It is a simple and effective system that is easy to install, without electronics which requires no electrical connections, practically no maintenance and with very low pressure loss.

Our BADA-FAB non-return valve is an excellent ATEX certified Safety system for the compartmentalization of an explosion and is suitable for use in Ex zone 21 (ext.) and up to Ex zone 20 (int.).

! Advantages

- economically suitable solution for security against an explosion
- completely mechanical requiring practically no maintenance
- no power consumption
- low pressure losses
- high pressure resistance



Material

Body : steel 16MO3 (EN 10028).

Closing flap : HB 400 HARDOX (EN10051).

Surface treatment : powder coated RAL 3020.

Type

Welded plates with welded FA flanges (ISO).

Other information

- series includes diameters Ø200 up to Ø1000
- conformity according to : EN 16447 : 2014
NFPA 69 regulations
- certification number : FTZU 18 ATEX 0141X
- ATEX norm 114 : 2014/34/EC
- exterior zone certification : 21-22
- interior zone certification : 20-21-22
- level of protection : St1 (organic & nonmetallic),
Kst min. = 50 bar*m/s, Kst max. = 200 bar*m/s, MIE =13 mJ,
MIT = 430°C
- Pred,max. : 0.5 bar
- Min. / Max. airtspeed : 15 m/s to 35 m/s
- use : Indoors or outdoors
- min. / Max installation distance from filter Ø200 : 2 m to 7 m,
Ø250 to Ø400 : 3 m to 7 m, and Ø450 to Ø1000 : 4 m to 7 m
- max. dust concentration in duct : no limit
- only to be used in horizontal ducting
- temperature range : -20°C to +60°C

Options

- position sensor for BADA-FAB (ATEX 3D)
- position sensor for BADA-FAB (ATEX 2D)
- dust level indicator for BADA-FAB (ATEX 1GD)
- remote unlocking (2GD)

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Ø d	Min. distance (m)	Max. Distance (m)	Min. vessel volume (m³)
200	2.2	7.2	0.46
250	3.1	7.2	0.96
300	3.1	7.2	0.96
350	3.1	7.2	0.96
400	3.1	7.2	0.96
450	4	7.2	6
500	4	7.2	6
550	4	7.2	6
600	4	7.2	6
650	4	7.2	6
700	4	7.2	6
750	4	7.2	6
800	4	7.2	6
850	4	7.2	6
900	4	7.2	6
950	4	7.2	6
1000	4	7	6

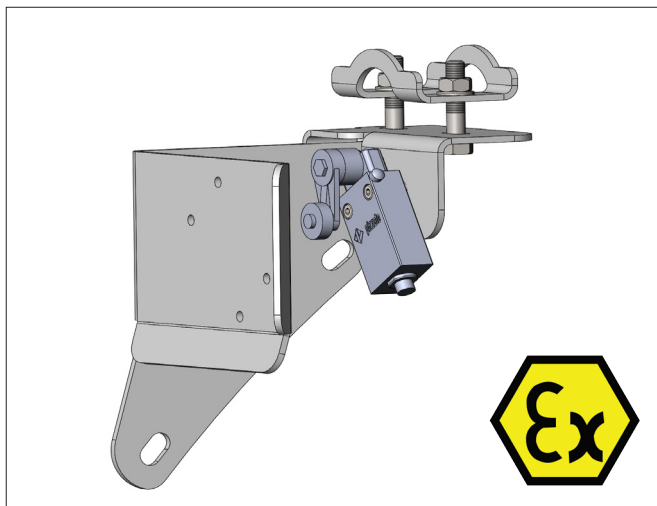
Pressure loss per diameter

Pa/Ø	Velocity		
	15 m/s	20 m/s	25 m/s
200	390	450	520
250	380	413	513
300	370	407	507
350	360	400	500
400	350	393	493
450	340	387	487
500	330	380	480
550	320	373	473
600	310	367	467
650	290	340	425
700	280	330	418
750	270	320	412
800	260	310	405
850	250	300	398
900	240	290	392
950	230	280	385
1000	220	270	378

Dimensions

Ø d	Code	A mm	B mm	C mm	G mm	H mm	d1 mm	d2 mm	d3 mm	A qty	H (°)	S mm	Weight kg
200	NABA000100	470	510	590	458	394	10	255	235	12	15	3	45.00
250	NABA000101	520	555	620	488	424	10	305	285	12	15	3	52.00
300	NABA000102	570	610	640	508	444	10	355	336	12	15	3	60.00
350	NABA000103	620	660	670	538	474	12	415	389	12	15	3	70.00
400	NABA000104	670	710	735	603	539	12	465	439	16	11.25	3	83.00
450	NABA000105	720	760	785	653	589	12	515	489	16	11.25	3	94.00
500	NABA000106	770	810	835	703	639	12	565	540	16	11.25	3	106.00
550	NABA000107	820	860	885	753	689	12	615	590	16	11.25	3	118.00
600	NABA000108	870	910	935	803	739	12	665	640	16	11.25	3	130.00
650	NABA000109	985	1021	1090	952	888	12	715	690	24	7.5	3	169.00
700	NABA000110	1035	1072	1120	982	918	12	785	750	24	7.5	3	185.00
750	NABA000111	1085	1127	1150	1012	948	12	835	800	24	7.5	3	199.00
800	NABA000112	1152	1213	1220	1082	1018	12	885	850	24	7.5	3	229.00
850	NABA000113	1202	1263	1340	1083	1019	12	935	900	24	7.5	3	241.00
900	NABA000114	1252	1313	1340	1202	1138	12	985	950	24	7.5	3	268.00
950	NABA000115	1302	1363	1340	1202	1138	12	1035	1000	24	7.5	3	281.00
1000	NABA000116	1352	1413	1340	1202	1138	12	1085	1050	24	7.5	3	294.00

NCED - Position sensor for BADA-FAB



NCED - Position sensors for BADA-FAB

The NCED position sensors are designed to send a signal to a control panel when the BADA-FAB ATEX non-return valve is in a locked position.

They are prewired devices produced according to the ATEX directives. Available for ATEX zone 21 or ATEX zone 22.

Position sensors must be installed with a mounting plate adapted to the dimension of the BADA-FAB.

Advantages

- Economically suitable solution for explosion detection
- Requires practically no maintenance
- Little power consumption

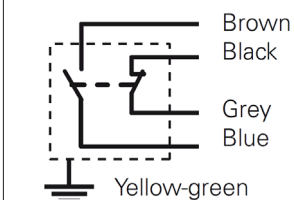
Protection level

- Model for 3D (Zone 22)

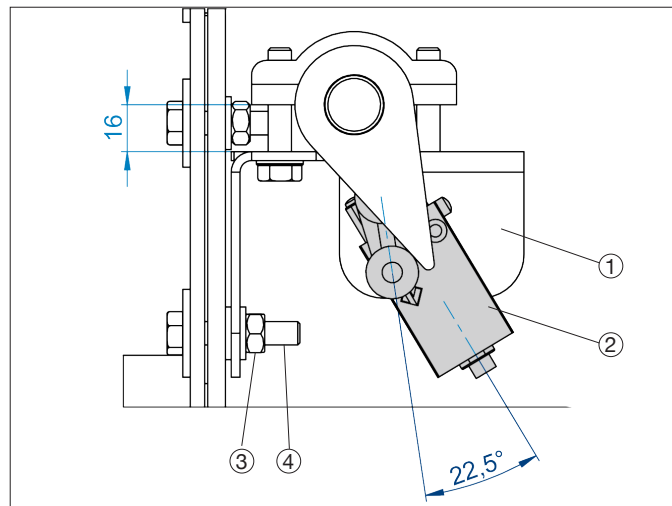
 II 3D Ex tc IIIC T80°C Dc

- model for 2D (zone 21)

 II 2D Ex tb IIIC T80°C Db



Wiring diagram



Material

powder coated metal housing.

Type

Zone 22 : Prewired with 2m cable IP 67 according to EN 60529.

Zone 21 : without cable IP 66 according to EN 60529 (cable gland not included).

Other information

- conformity according to : ATEX Directive 2014/34/EU, EMC Directive 2014/30/EU
- positive contact opening according to : IEC 60947-5-1, EN 60947-5-1
- other Compliance standards : IEC 60947-5-1, EN 60947-5-1, EN 60947-1, IEC 30204-1, EN 60204-1, EN ISO 14119, EN ISO 12100, IEC 60529, EN 60529, UL 508, CSA 22.2 No.14, IEC 60079-0, EN 60079-0, IEC 60079-31, EN 60079-31, IEC 60079-15, EN 60079-15
- current : 10A (FA model), 6A (FD model)
- insulation voltage : 24 to 400 V AC/DC
- protection : fuse type aM 10A 500V or aM 6A 500V
- temperature range : -20°C to +60°C

Options

- none

Parts list

Part #	Description	Quantity
1	Position sensor support plate	1
2	Position sensor	1
3	M10 nut	2
4	M10 bolt	2

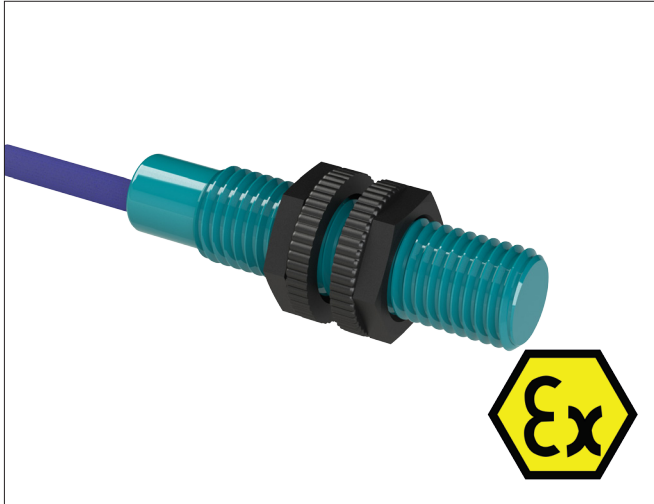
Model Zone 22

Voltage	AC15 (50>60 Hz)				DC13	
Ue (V)	120	250	400	25	125	250
Ie (A)	6	4	3	2.5	0.55	0.27

Model Zone 21

Voltage	AC15 (50>60 Hz)				DC13	
Ue (V)		250		24	125	250
Ie (A)		6		3	0.55	0.3

NCEA000001 - Dust level sensor for BADA-FAB



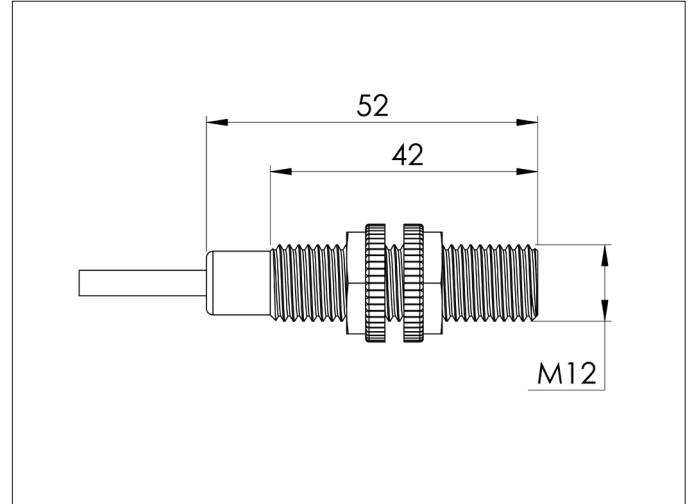
NCEA000001 - Dust level sensor for BADA-FAB

This sensor is designed to measure the dust level formation within the BADA-FAB ATEX non-return valve and give a signal in case of non-compliance.

It is a prewired device produced according to the ATEX directives.

Protection level

-  II 1G Ex ia IIC T6...T1 Ga
-  II 1D Ex ia IIIC T135°C Da



Material

Stainless steel housing with M12 mounting nuts

Type

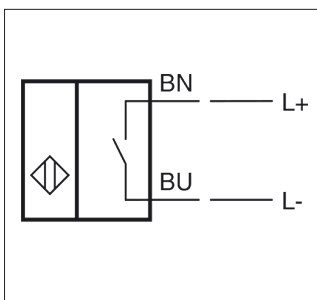
Pre-wired with 2 x 10 m PVC coated cables

Other information

- conformity according to : CE, CSA, UL and FM
- NAMUR compliance : EN 60947-5-6:2000 IEC 60947-5-6:1999 and EN 60947-5-2:2007
- other Compliance standards : EN 60947-5-2/A1:2012, IEC 60947-5-2:2007, and IEC 60947-5-2 AMD 1:2012
- voltage : 12 V DC
- protection : IP 68
- temperature range : -25°C to +70°C

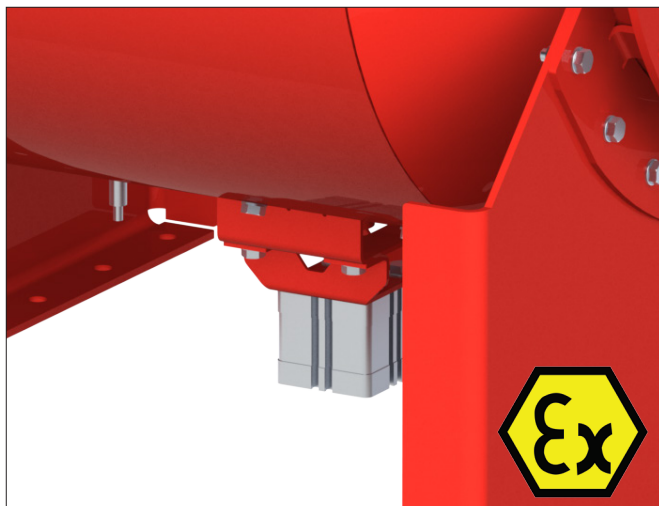
Options

- other voltages



Wiring diagram

NABZ000018 - ATEX Remote unlocking system for BADA-FAB



NABZ000018 - ATEX Remote unlocking system for BADA-FAB

The remote unlocking system for BADA-FAB is an ATEX remote operate pneumatic unlocking system that replaces the handle on the underside of the BADA-FAB body.

Especially suited for BADA-FAB ATEX non-return valves placed in high, or hard to reach places.

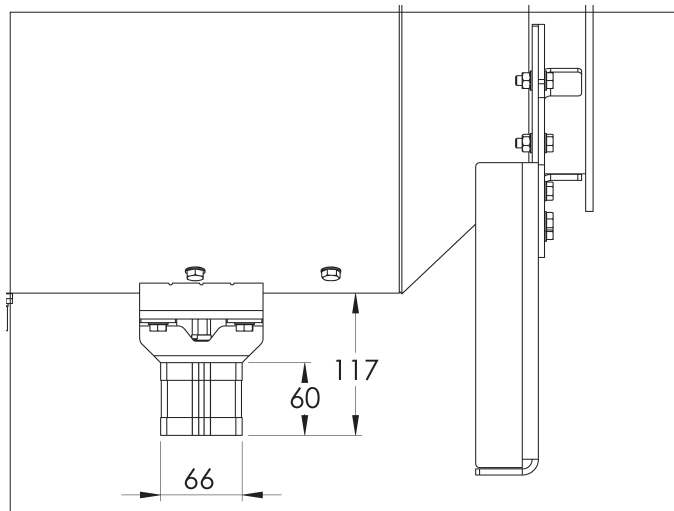
When an unwanted closing of the non-return valve occurs during normal operating conditions, the pneumatic cylinder can be activated from a remote location to release the blade.

It may not be used when an explosion has occurred in an installation.

ATEX conformity

-  II 2Gc IIC T100°C

❗ The compressed air activation device is not included.



Material

Structure : steel 16MO3 (EN 10028)

Cylinder : Cast aluminum

Cylinder Rod : AISI 304

Type

Cast aluminum cylinder on welded plates including 4/6 air hose quick-connector

Other information

- certification notified body : TÜV
- conform to : ATEX Directive 2014/34/EC
- other certification : ISO 21287
- designed for BADA-FAB sizes Ø 200 up to Ø 1000
- temperature range : -20°C to +80°C
- working pressure : max. 8 Bar

Options

- non-ATEX execution

❗ Max. Luftdruck im Pneumatikzylinder: 8 Bar

❗ Verwenden Sie nur ölfreie, trockene Luft

Ø d BADA-FAB	Remote unlocking Code	Weight (kg)
200 to 1000	NABZ000018	0.5