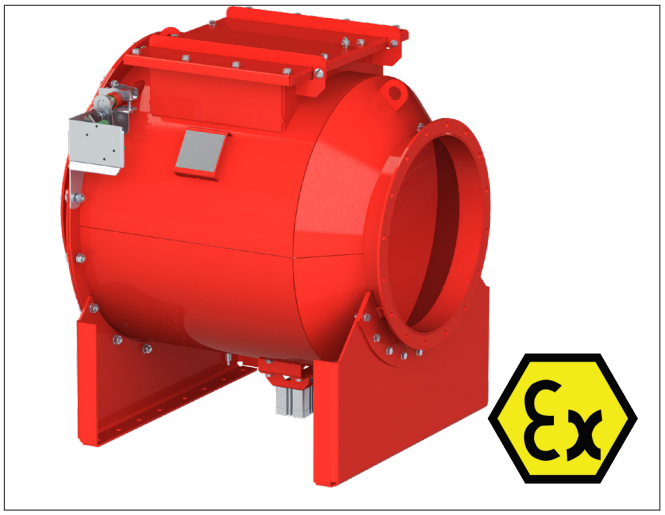
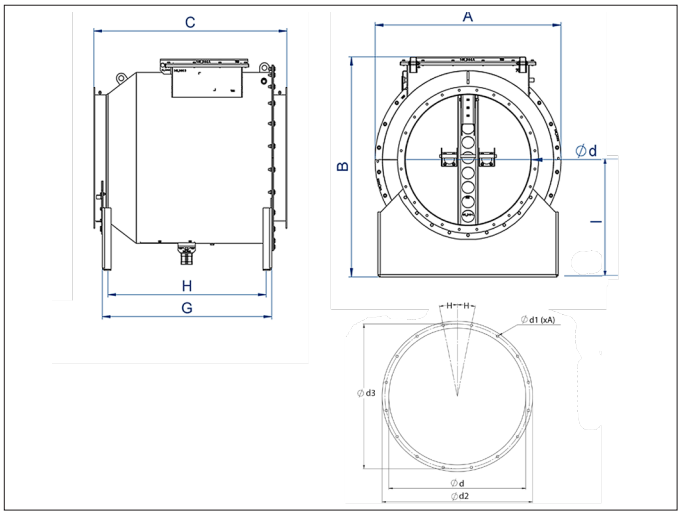
BADA-FAB - Non-return valve for explosion isolation





BADA-FAB - Non-return valve for explosion isolation
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, pratically 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.).

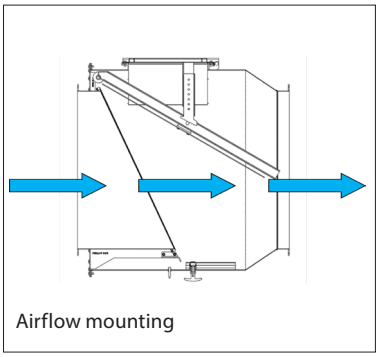
Advantages
- economically suitable solution for security against an explosion
- completely mechanical requiring practically no maintenance
- no power consumption
- low pressure losses
- high pressure resistance

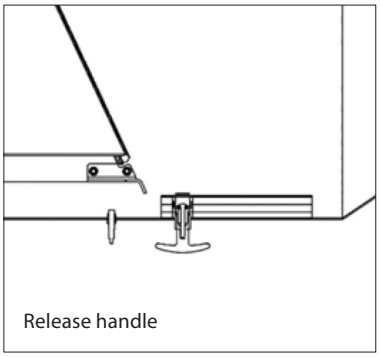
Options
- position sensor for BADA-FAB (ATEX 3D)
- position sensor for BADA-FAB (ATEX 2D)
- dust level indicator for BADA-FAB (ATEX 1GD)
- remote unlocking (2GD)

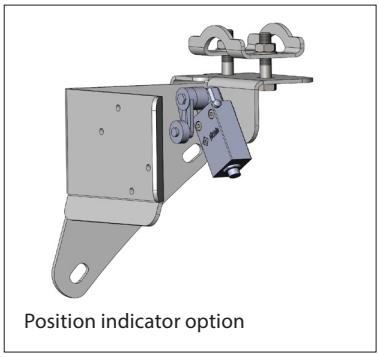
Material
Body : steel 16MO3 (EN 10028).
Closing flap : HB 400 HARDOX (EN10051).
Surface treatment : powder coated RAL 3020.

Type
Welded plates with welded FA flanges (ISO).

Other information
- diameter range : 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. airspeed : 15 m/s to 35 m/s
- use : Indoors or outdoors
- Ø200 to 400 : Pull and Push flow situation, straight pipes may include 2x90° bend between the protected vessel and non-return valve,
- Ø450 to 1000 : Pull flow situation, only straight pipes between the protected vessel and the non-return valve,
- 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
- protected vessel venting may only be non-reclosing devices
- max. dust concentration in duct : no limit
- only to be used in horizontal ducting
- temperature range : -20°C to +60°C
- see complete technical data in the user guide


Airflow mounting


Release handle


Position indicator option

BADA-FAB - Non-return valve for explosion isolation

Ø d	Min. distance (m)	Max. Distance (m)	Min. vessel volume (m^3)
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

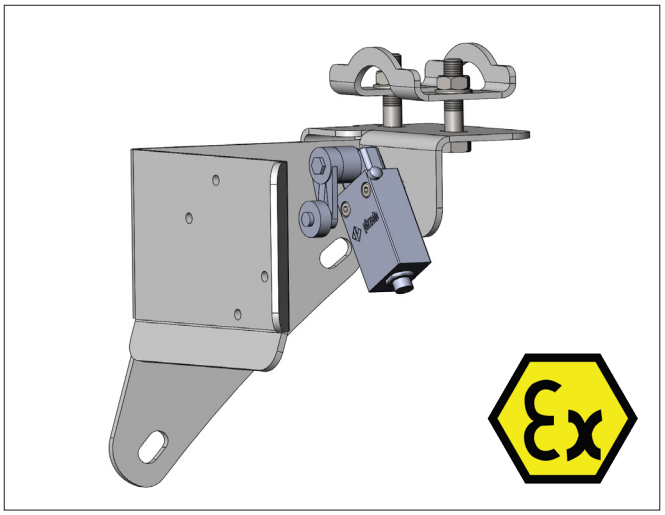
Pressure loss (in Pa)

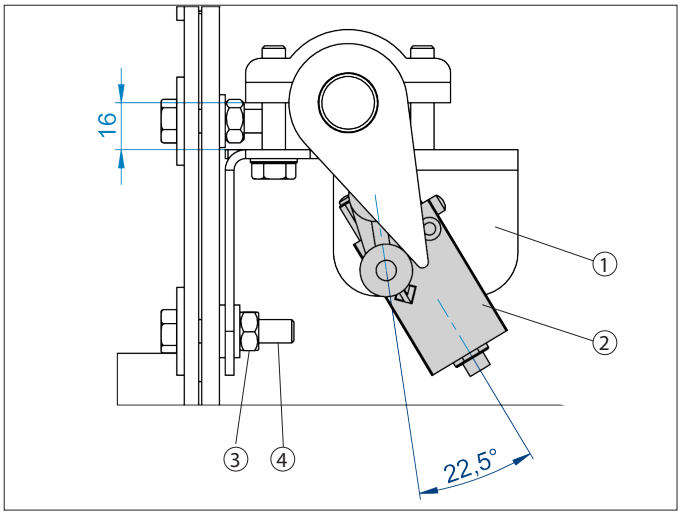
BADA-FAB	Velocity				
	15	20	25	30	35
Ød	m/s	m/s	m/s	m/s	m/s
200	350	480	610	780	850
250	370	480	640	820	970
300	380	480	670	870	1080
350	400	480	700	910	1190
400	410	480	730	960	1300
450	420	470	750	1000	1410
500	400	490	800	1100	1570
550	380	510	840	1200	1730
600	350	530	890	1300	1890
650	330	550	930	1390	2050
700	360	610	1010	1510	2210
750	380	660	1080	1620	2360
800	410	710	1160	1730	2510
850	440	760	1240	1840	2660
900	460	800	1300	1930	2790
950	490	840	1370	2030	2920
1000	510	890	1440	2120	3050

Dimensions

Ø d	Code	A	B	C	G	H	I	d1	d2	d3	A	H	S	Weight
		mm	mm	mm	mm	mm	mm	mm	mm	mm	qty	(°)	mm	kg
200	NABA000100	470	510	590	458	394	350	10	255	235	12	15	3	45.00
250	NABA000101	520	555	620	488	424	375	10	305	285	12	15	3	52.00
300	NABA000102	570	610	640	508	444	400	10	355	336	12	15	3	60.00
350	NABA000103	620	660	670	538	474	425	12	415	389	12	15	3	70.00
400	NABA000104	670	710	735	603	539	450	12	465	439	16	11.25	3	83.00
450	NABA000105	720	760	785	653	589	475	12	515	489	16	11.25	3	94.00
500	NABA000106	770	810	835	703	639	500	12	565	540	16	11.25	3	106.00
550	NABA000107	820	860	885	753	689	525	12	615	590	16	11.25	3	118.00
600	NABA000108	870	910	935	803	739	550	12	665	640	16	11.25	3	130.00
650	NABA000109	985	1021	1090	952	888	601.5	12	715	690	24	7.5	3	169.00
700	NABA000110	1035	1072	1120	982	918	626.5	12	785	750	24	7.5	3	185.00
750	NABA000111	1085	1127	1150	1012	948	651.5	12	835	800	24	7.5	3	199.00
800	NABA000112	1152	1213	1220	1082	1018	685	12	885	850	24	7.5	3	229.00
850	NABA000113	1202	1263	1340	1083	1019	710	12	935	900	24	7.5	3	241.00
900	NABA000114	1252	1313	1340	1202	1138	735	12	985	950	24	7.5	3	268.00
950	NABA000115	1302	1363	1340	1202	1138	760	12	1035	1000	24	7.5	3	281.00
1000	NABA000116	1352	1413	1340	1202	1138	785	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.

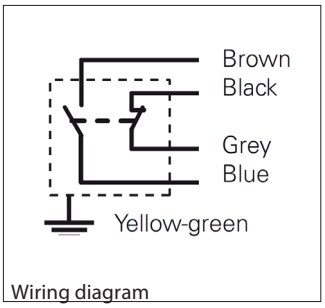
Advantages
- Economically suitable solution for explosion detection
- Requires practically no maintenance
- Little power consumption

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

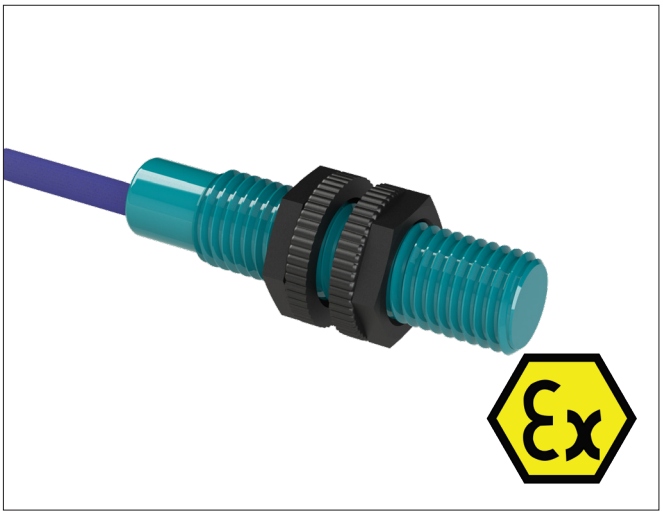
Parts list

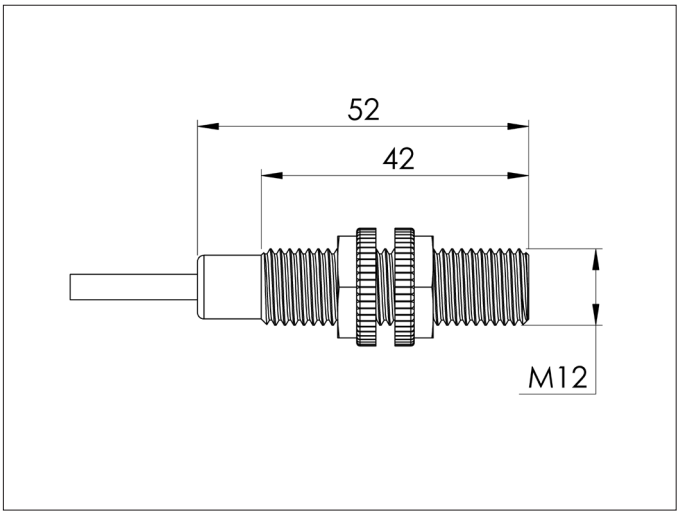
Part #	Description	Quantity
1	Position sensor support plate	1
2	Position sensor	1
3	M10 nut	2
4	M10 bolt	2

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.

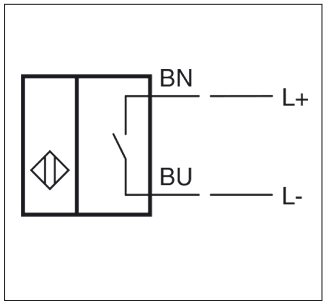
Protection level
- 1G Ex ia IIC T6…T1 Ga
- 1D Ex ia IIIC T135°C Da

Material
Stainless steel housing with M12 mounting nuts.

Type
Pre-wired with 2 x 10 m PVC coated cables.

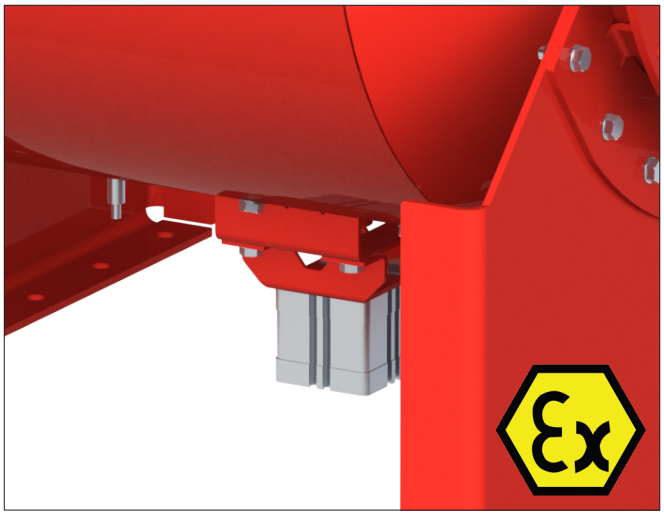
Other information
- conformity according to : CE, CSA, UL and FM
- NAMUR compliance : EN 60947-5-6:2000 IEC 60947-5-6:1999 and EN 60947-5-2:2007
- other Compliance standards : EN 60947-5-2/A1:2012, IEC 60947-5-2:2007, and IEC 60947-5-2 AMD 1:2012
- voltage : 12 V DC
- protection : IP 68
- temperature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

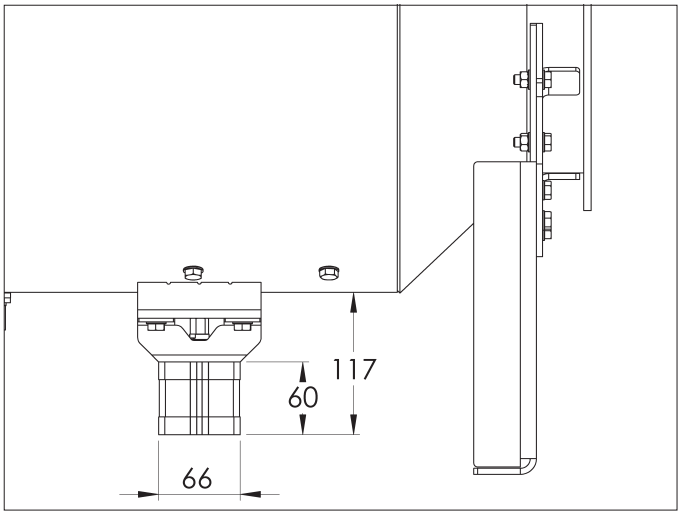
Options
- other voltages



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 occured in an installation.

ATEX conformity
- Ex 2Gc IIC T100°C

Material
Structure : AISI 304 stainless steel.
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 Ø200 up to Ø1000
- temperature range : -20°C to +80°C
- working pressure : max. 8 Bar

Options
- non-ATEX execution

The compressed air activation device is not included.

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