



BRC Valve and Controller for Dust Collector System





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Controller For Dust Collector System

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Diaphragm Valve

- 

Remote Solenoid Pilot

- 

Remote Solenoid Enclosure

- 

Air Hammer

- 

Pneumatic Vibrator

- 

Capacitance Level Switch

- 

Rotary Paddle Level Switch

- 

Tuning Fork Level Switch

- 

Vibrating Probe Level Switch

- 

RF Capacitance admittance Level Switch

- 

Snifter dust monitor

PRODUCT INFORMATION

WORKING PRINCIPLE

The diaphragm valves are used specifically in the dust collector system. The valve consists of 2 air chambers divided by a piece of diaphragm. The 2 chambers are connected through an air passage (air passage's diameter is smaller than the orifice of the pilot valve). When the orifice opens, the air in the upper chamber is exhausted much faster than the speed of air that enters through the air passage. The air pressure of the upper chamber drops significantly, the higher pressure of the lower chamber pushes the diaphragm up and opens a bigger passage for air to enter into the bottom chamber.

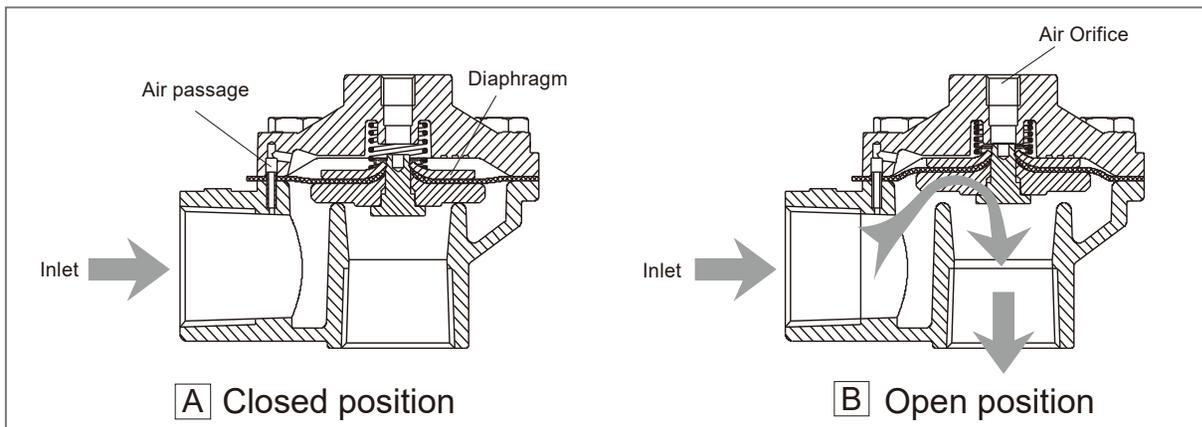
This sudden burst of air is used to inflate the fabric filter so as to shake off all the dust clinging on the bag filter. When the orifice closes, the pressure in both chambers equalizes and the diaphragm returns to its original position via the force of the coiled spring.

FEATURES

- Fast response, large flow volume, effective cleaning action on fabric filter
- Low air consumption
- Compatible with programmable sequential controller
- Ease of adjustment in jet pulse timing and duration

APPLICATION

Pulse cleaning and filtering system in dust collectors, also suitable for filter bags, filter barrels, flat bags, ceramic tubes and filter bags for metal fiber.



BRC DIAPHRAGM VALVES WITH FEMALE THREAD



MODEL NUMBER / ORDER CODE COMPARISON TABLE

Model Number	Order Code
BRC-20SC	BRC10000-ACA7A07MH0
BRC-25SC	BRC10000-ACA8A07MH0
BRC-42SC	BRC10000-ACB1B07MH0
BRC-52SC	BRC10000-ACB2B07MH0
BRC-62SC	BRC10000-ACB4B07MH0
BRC-72SC	BRC10000-ACB5B07MH0

Model Number	Order Code
BRC-20SC□	BRC10000-A□A7A07MH□
BRC-25SC□	BRC10000-A□A8A07MH□
BRC-42SC□	BRC10000-A□B1B07MH□
BRC-52SC□	BRC10000-A□B2B07MH□
BRC-62SC□	BRC10000-A□B4B07MH□
BRC-72SC□	BRC10000-A□B5B07MH□

ORDER INFORMATION

BRC 1 0 0 0 0 - A ^⑩□ ^⑪□ ^⑫□ ^⑬□ 0 7 MH ^⑱□

⑩ Control method and wiring

- A: Integrated type; Solenoid valve with lead wire
- B: Integrated type; Solenoid valve with DIN connector
- C: Remote type

⑪ ⑫ Process connection

- A7: 3/4" B2: 2"
- A8: 1" B4: 2-1/2"
- B1: 1-1/2" B5: 3"

⑬ Diaphragm type

- A: Single diaphragm
- B: Dual diaphragm

⑱ Power supply for solenoid valve

- A: 110Vac C: 24Vdc
- B: 220Vac 0: Without solenoid valve

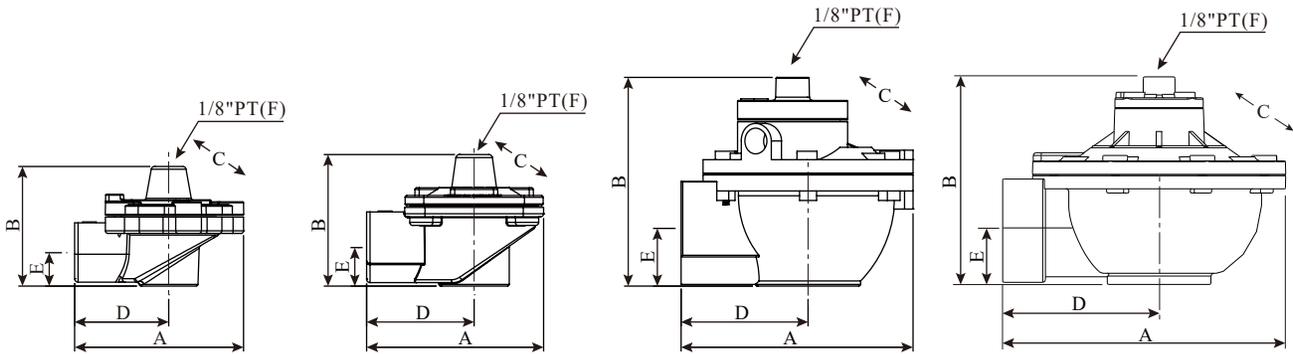
BRC DIAPHRAGM VALVES WITH FEMALE THREAD REMOTE TYPE

Model: BRC-20SC

Model: BRC-25SC

Model: BRC-42SC

Model: BRC-52SC
BRC-62SC
BRC-72SC



Model	A		B		C (wide)		D		E	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
BRC-20SC	3.94	100	2.76	70	3.43	87	2.20	56	0.79	20
BRC-25SC	4.09	104	2.99	76	3.23	82	2.52	64	0.87	22
BRC-42SC	5.43	138	4.80	122	4.88	124	2.95	75	1.42	36
BRC-52SC	8.07	205	5.98	152	7.24	184	4.45	113	1.54	39
BRC-62SC	8.27	210	6.73	171	7.24	184	4.65	118	1.81	46
BRC-72SC	9.02	229	7.36	187	7.80	198	5.12	130	2.20	56

Model	Orifice (inch)	Number (Diaphragm)	Flow factor Kv (m ³ /h)	Flow factor Cv (gal/min)	Operating pressure (Bar)	Weight (g)
BRC-20SC	3/4"	1	12.04	14	0.3 ~ 8.6	320
BRC-25SC	1"	1	19.78	23	0.3 ~ 8.6	470
BRC-42SC	1-1/2"	2	43.86	51	0.3 ~ 8.6	1040
BRC-52SC	2"	2	91.16	106	0.3 ~ 8.6	1990
BRC-62SC	2-1/2"	2	116.96	136	0.3 ~ 8.6	2290
BRC-72SC	3"	2	143.62	167	0.3 ~ 8.6	3180

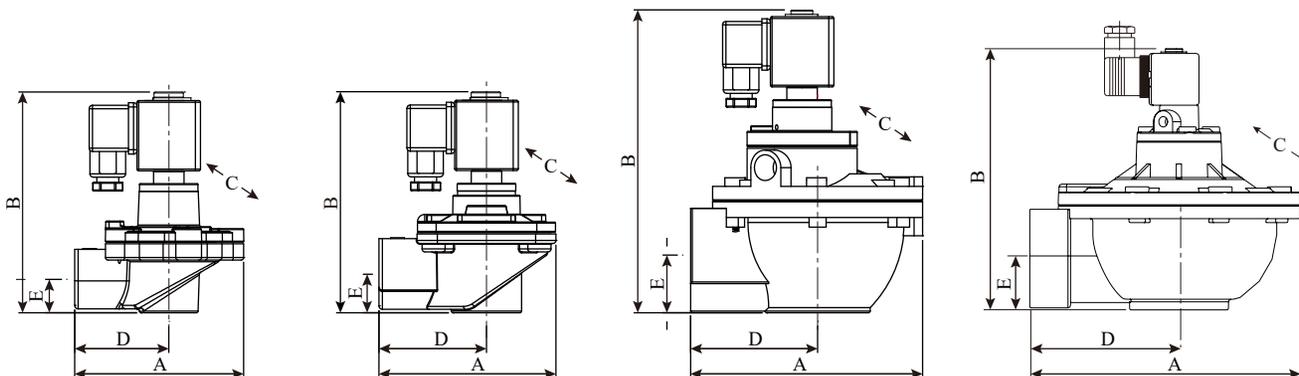
BRC DIAPHRAGM VALVES WITH FEMALE THREAD INTEGRATED TYPE

Model: BRC-20SC

Model: BRC-25SC

Model: BRC-42SC

Model: BRC-52SC
BRC-62SC
BRC-72SC



Model	A		B		C (wide)		D		E	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
BRC-20SC□	3.94	100	4.96	126	3.43	87	2.20	56	0.79	20
BRC-25SC□	4.09	104	4.96	126	3.23	82	2.52	64	0.87	22
BRC-42SC□	5.43	138	6.85	174	4.88	124	2.95	75	1.42	36
BRC-52SC□	8.07	205	8.03	204	7.24	184	4.45	113	1.54	39
BRC-62SC□	8.27	210	8.78	223	7.24	184	4.65	118	1.81	46
BRC-72SC□	9.02	229	9.41	239	7.80	198	5.12	130	2.20	56

Model	Orifice (inch)	Number (Diaphragm)	Flow factor Kv (m ³ /h)	Flow factor Cv (gal/min)	Operating pressure (Bar)	Weight (g)
BRC-20SC□	3/4"	1	12.04	14	0.3 ~ 8.6	550
BRC-25SC□	1"	1	19.78	23	0.3 ~ 8.6	680
BRC-42SC□	1-1/2"	2	43.86	51	0.3 ~ 8.6	1260
BRC-52SC□	2"	2	91.16	106	0.3 ~ 8.6	2190
BRC-62SC□	2-1/2"	2	116.96	136	0.3 ~ 8.6	2520
BRC-72SC□	3"	2	143.62	167	0.3 ~ 8.6	3370

BRC DIAPHRAGM VALVES WITH FEMALE THREAD REMOTE TYPE



GENERAL FEATURES

Fluids : Air filtered and oil free air
Diaphragm material : NBR
Operation temp. : -20 ~ 85°C
Ambient temp. : -20 ~ 60°C

CONSTRUCTION

Cover : Aluminum
Body : Aluminum

BRC DIAPHRAGM VALVES WITH FEMALE THREAD INTEGRATED TYPE



GENERAL FEATURES

Fluids : Air filtered and oil free air
Diaphragm material : NBR
Operation temp. : -20 ~ 85°C
Ambient temp. : -20 ~ 60°C

ELECTRICAL FEATURES

Connector spec. : Flying leads (DIN 43650A)
Electrical equipment : EN 60204.1 and VDE 0580
Electrical protection : IP65 (EN 60529)
Standard voltages : 24Vdc±10%,
110Vac±10%, 50/60Hz
220Vac±10%, 50/60Hz
Power consumption : 15W for 24Vdc
AC---19VA
Operating temp. : -20 ~ 85°C

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CONSTRUCTION

Cover : Aluminum
Body : Aluminum

BRC DIAPHRAGM VALVES WITH QUICK FITTINGS



MODEL NUMBER / ORDER CODE COMPARISON TABLE

Model Number	Order Code
BRC-20NC	BRC10000-BCA7A07MH0
BRC-25NC	BRC10000-BCA8A07MH0
BRC-42NC	BRC10000-BCB1B07MH0

Model Number	Order Code
BRC-20NC□	BRC10000-B□A7A07MH□
BRC-25NC□	BRC10000-B□A8A07MH□
BRC-42NC□	BRC10000-B□B1B07MH□

ORDER INFORMATION

⑩
⑪
⑫
⑬
BRC 1 0 0 0 0 - B

0 7 MH

⑱

⑩ **Control method and wiring** _____

- A: Integrated type; Solenoid valve with lead wire
- B: Integrated type; Solenoid valve with DIN connector
- C: Remote type

⑪ ⑫ **Process connection** _____

- A7: 3/4" A8: 1" B1: 1-1/2"

⑬ **Diaphragm type** _____

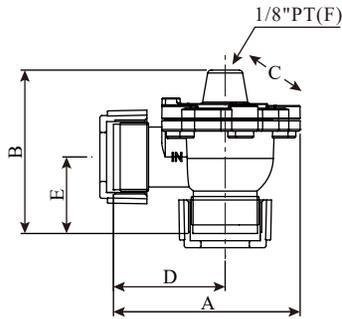
- A: Single diaphragm
- B: Dual diaphragm

⑱ **Power supply for solenoid valve** _____

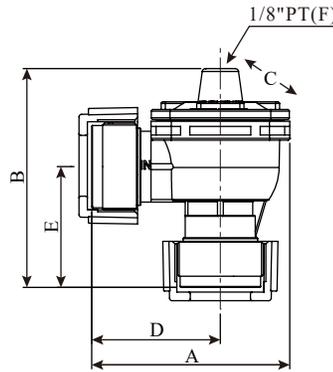
- A: 110Vac
- B: 220Vac
- C: 24Vdc
- 0: Without solenoid valve

BRC DIAPHRAGM VALVES WITH QUICK FITTINGS REMOTE TYPE

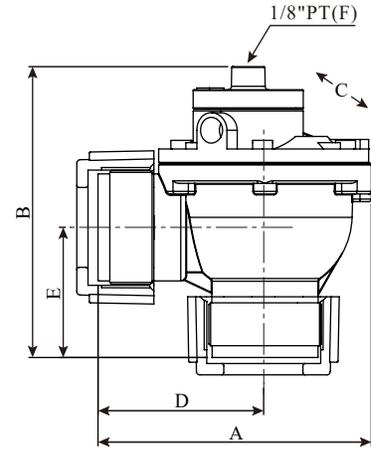
Model: BRC-20NC



Model: BRC-25NC



Model: BRC-42NC



Model	A		B		C (wide)		D		E	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
BRC-20NC	4.41	112	3.78	96	3.43	87	2.64	67	1.77	45
BRC-25NC	4.61	117	5.04	128	3.23	82	2.99	76	2.76	70
BRC-42NC	6.34	161	6.65	169	4.88	124	3.90	99	2.99	76

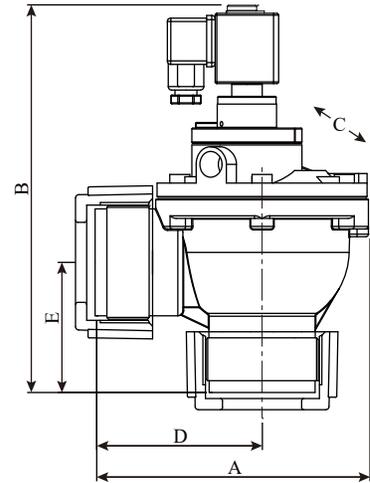
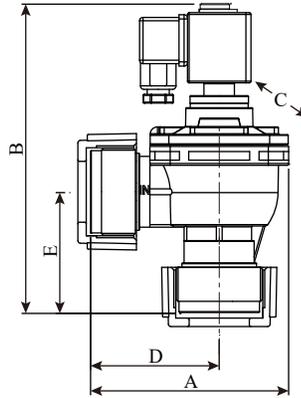
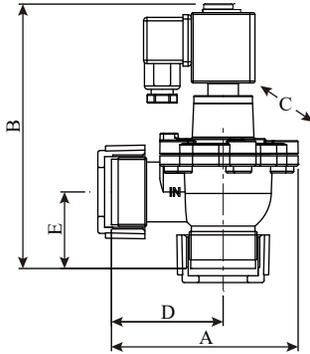
Model	Orifice (inch)	Number (Diaphragm)	Flow factor Kv (m ³ /h)	Flow factor Cv (gal/min)	Operating pressure (Bar)	Weight (g)
BRC-20NC	3/4"	1	12.04	14	0.3 ~ 8.6	550
BRC-25NC	1"	1	19.78	23	0.3 ~ 8.6	860
BRC-42NC	1-1/2"	2	43.86	51	0.3 ~ 8.6	1740

BRC DIAPHRAGM VALVES WITH QUICK FITTINGS INTEGRATED TYPE

Model: BRC-20NC□

Model: BRC-25NC□

Model: BRC-42NC□



Model	A		B		C (wide)		D		E	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
BRC-20NC□	4.41	112	5.94	151	3.43	87	2.64	67	1.77	45
BRC-25NC□	4.61	117	6.97	177	3.23	82	2.99	76	2.76	70
BRC-42NC□	6.34	161	8.70	221	4.88	124	3.90	99	2.99	76

Model	Orifice (inch)	Number (Diaphragm)	Flow factor Kv (m ³ /h)	Flow factor Cv (gal/min)	Operating pressure (Bar)	Weight (g)
BRC-20NC□	3/4"	1	12.04	14	0.3 ~ 8.6	780
BRC-25NC□	1"	1	19.78	23	0.3 ~ 8.6	1070
BRC-42NC□	1-1/2"	2	43.86	51	0.3 ~ 8.6	1960

BRC DIAPHRAGM VALVES WITH QUICK FITTINGS REMOTE TYPE



GENERAL FEATURES

Fluids : Air filtered and oil free air
Diaphragm material : NBR
Operation temp. : -20 ~ 85°C
Ambient temp. : -20 ~ 60°C

CONSTRUCTION

Cover : Aluminum
Body : Aluminum

BRC DIAPHRAGM VALVES WITH QUICK FITTINGS INTEGRATED TYPE



GENERAL FEATURES

Fluids : Air filtered and oil free air
Diaphragm material : NBR
Operation temp. : -20 ~ 85°C
Ambient temp. : -20 ~ 60°C

ELECTRICAL FEATURES

Connector spec. : Flying leads (DIN 43650A)
Electrical equipment : EN 60204.1 and VDE 0580
Electrical protection : IP65 (EN 60529)
Standard voltages : 24Vdc±10%,
110Vac±10%, 50/60Hz
220Vac±10%, 50/60Hz
Power consumption : DC-15W for 24Vdc
AC---19VA
Operating temp. : -20 ~ 85°C

CONSTRUCTION

Cover : Aluminum
Body : Aluminum

REMOTE SOLENOID PILOT

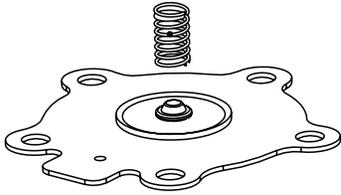
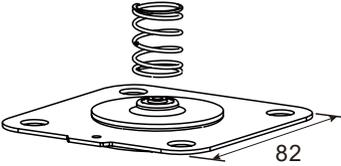
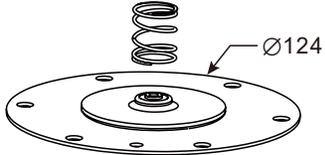
OPTIONAL ACCESSORIES

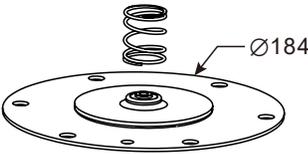
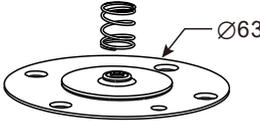
GENERAL SPECIFICATION

Diaphragm material : NBR
 Operating temperature : -20 ~ 85°C
 Ambient temperature : -20 ~ 60°C

FEATURES

Consumable, spare parts, easy for regular replacement of diaphragm to ensure the fine function of equipment.

<p>BRCAMIS-07RD20T401 BRC-20 Diaphragm + spring</p>	<p>BRCAMIS-07RD25T401 BRC-25 Diaphragm + spring</p>	<p>BRCAMIS-07RD40T401 BRC-42 Diaphragm + spring</p>
		

<p>BRCAMIS-07RD50T401 BRC-52/62 Large diaphragm + spring</p>	<p>BRCAMIS-07RD10T401 BRC-10 Small diaphragm + spring</p>
	

BRC-42=(BRCAMIS-07RD40T401+BRCAMIS-07RD10T401)
 BRC-52=(BRCAMIS-07RD50T401+BRCAMIS-07RD10T401)
 BRC-62=(BRCAMIS-07RD50T401+BRCAMIS-07RD10T401)

BULKHEAD CONNECTORS

OPTIONAL ACCESSORIES

DESCRIPTION

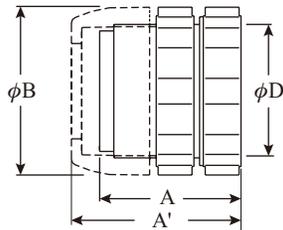
These components eliminate the requirement of welding and allow easy removal of cleaning systems and blowtubes for maintenance purposes.



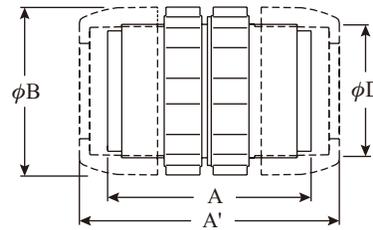
CONSTRUCTURE

- DIN nut : Aluminum
- Body : Aluminum
- Ring nut : Aluminum
- Washer : SS41
- Conical gasket : NBR (standard)
VITON (optional)

Model: BDB-□□D

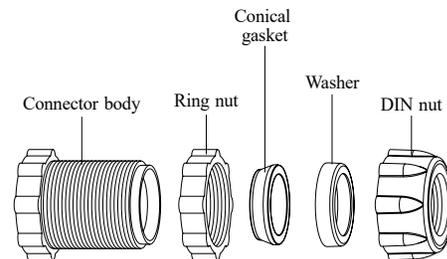


Model: BDB-□□DD



Model No.	Orifice	Tube outer diameter (mm)		A (mm)	A' (mm)	φB (mm)	φD (mm)
		JIS	ASTM				
BDB-20D	3/4"	27.2	26.67	60.5	70	58.5	45~51
BDB-20DD	3/4"	27.2	26.67	91	110	58.5	45~51
BDB-25D	1"	34	33.4	69	80	70	56~62
BDB-25DD	1"	34	33.4	101	123	70	56~62
BDB-40D	1-1/2"	48.6	48.26	75	90	88	72~78
BDB-40DD	1-1/2"	48.6	48.26	108	138	88	72~78

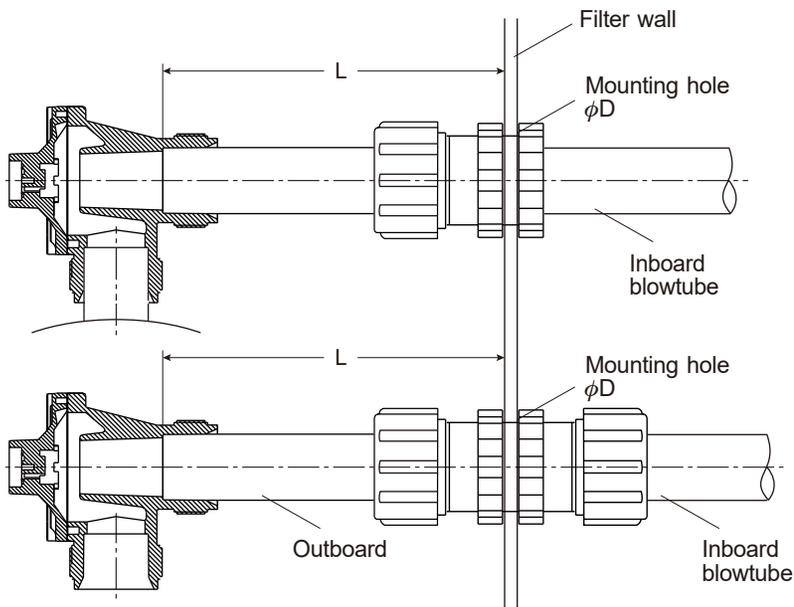
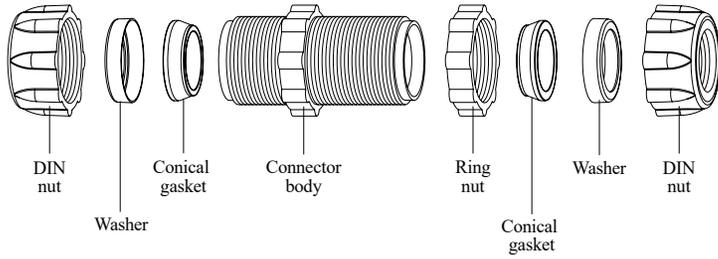
BDB--□□D



MODEL NUMBER / ORDER CODE COMPARISON TABLE

Model Number	Order Code
BDB-□□D	BRDBM1P-MHE00□□
BDB-□□DD	BRDBM1P-MHL00□□
BDB-20D	BRDBM1P-MHE00A7
BDB-20DD	BRDBM1P-MHL00A7
BDB-25D	BRDBM1P-MHE00A8
BDB-25DD	BRDBM1P-MHL00A8
BDB-40D	BRDBM1P-MHE00B1
BDB-40DD	BRDBM1P-MHL00B1

BDB-□□DD



ORDER INFORMATION

BRD B M 1 P-MH ^⑩□ **0 0** ^⑬□ ^⑭□

⑩ Type

- E: Bulkhead connectons (single side)
- L: Bulkhead connectons (two side)

⑬⑭ Connection

- A7: 3/4"
- A8: 1"
- B1: 1-1/2"

PROGRAMMABLE SEQUENTIAL CONTROLLER (Simple type)

SPECIFICATIONS

Power supply: (AE71□A) 100~240Vac,50/60Hz

(AE71□D) 24Vdc,±20%

Interval adjustable range: 2~60s

Spray time adjustable range: 20~200ms

Number of sequence: 1~10 points

Fuse: 3A

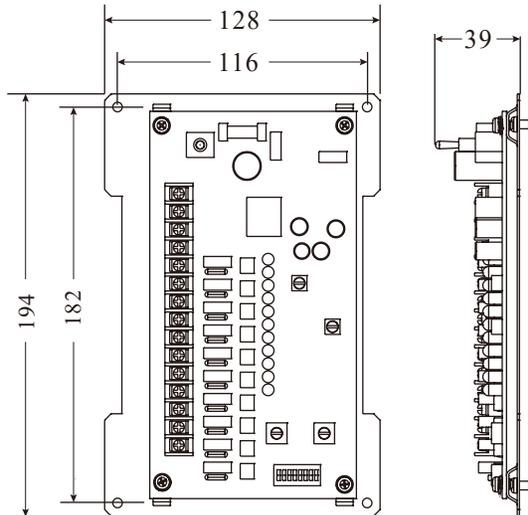
Ambient temperature : -25~75°C

Case material: Cover — PC

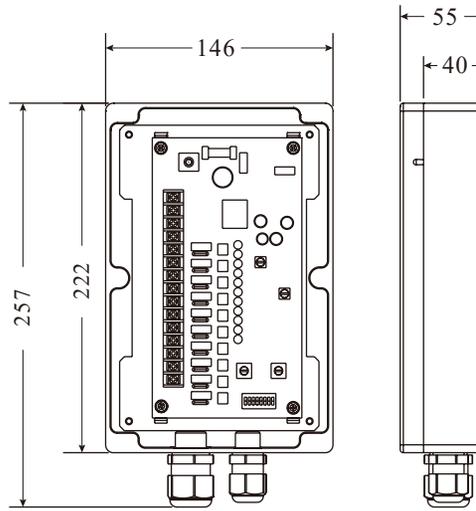
BOX — ABS (Optional)



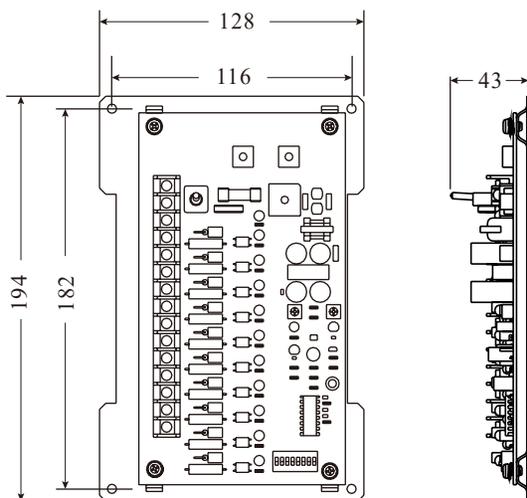
Model: AE710A



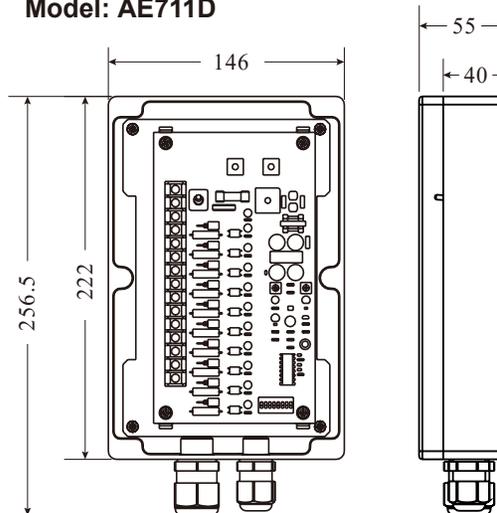
Model: AE711A



Model: AE710D



Model: AE711D



MODEL NUMBER / ORDER CODE COMPARISON TABLE

Model Number	Order Code
AE710A	AEX40100-AB
AE710D	AEX40100-AC
AE711A	AEX40100-BB
AE711D	AEX40100-BC

ORDER INFORMATION

AEX ⁰⁴□ ⁰⁵□ ⁰⁶□ 00 - ⁰⁹□ ¹⁰□

⁰⁴ **Type**

4: Simple type

⁰⁵ ⁰⁶ **Control output**

01: 10 points

⁰⁹ **Case**

A: None

B: Yes

¹⁰ **Power supply**

B: 100~240Vac (only for Simple type)

C: 24Vdc (only for Simple type)

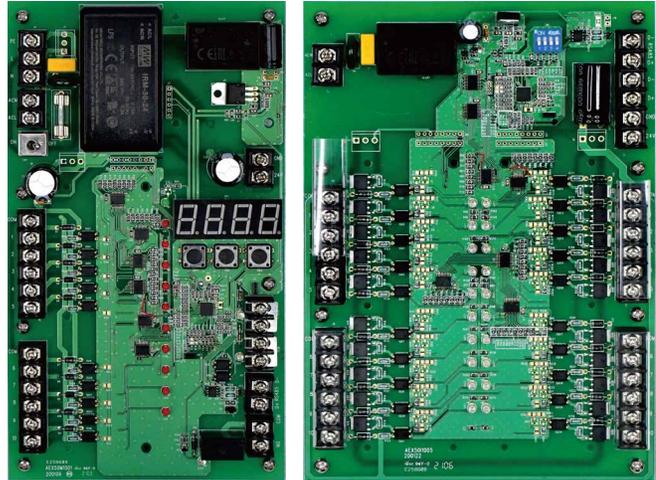
Programmable Sequential Controller (Continuous Expansion Type)

DESCRIPTION

AEX6 is specifically designed for use with pneumatic dust collector systems. It comprises of a microprocessor and a logic analysis & control circuit, with an output of 10, 20 points (up to 620 points with an expansion board) to control the solenoid of the diaphragm valve which in turn controls the pulse jet sequence of the valves, thus achieving the dust collector's main objective of cleaning the bag filter. The LED display panel indicates the current pulse jet position. Pulse Jet time and interval time can be adjusted. The number of control points can also be adjusted and increased. Wide application range, with user-friendly operation. It has an external current input terminal, which can be connected to a differential pressure transmitter or used for dust concentration detection. When the current reaches the set value, the fabric bag is attached to a greater degree, and the pulse jet interval is automatically shortened to improve the efficiency of bag cleaning. Continuous low current indicates that the fabric bag has broken and pressure has reduced. A built-in relay contact can be used as an alarm output.

FEATURES

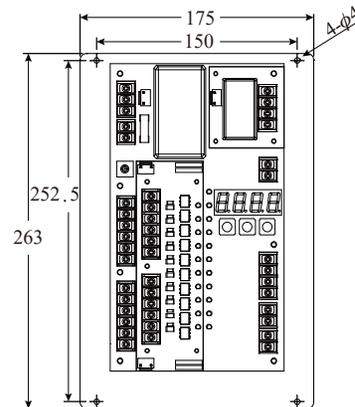
- Digital display for easy operation and real-time control of operation status.
- Microprocessor control – accurate and precise operation.
- Remote control function – convenient to start and stop operations.
- Able to automatically execute pulse jet cycle even after system shuts down, therefore preventing clogging caused by damp and dust residue in the fabric bag.
- Waterproof and dustproof outer box can be purchased to extend the service life.
- Number of output points can be increased up to 620 points.
- It can be connected to 4~20mA input (differential pressure or dust detection) when the set value is reached. Interval time is automatically shortened to improve performance, with a Relay output to warn when the fabric bag is broken.



Measurement

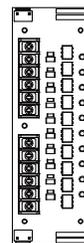
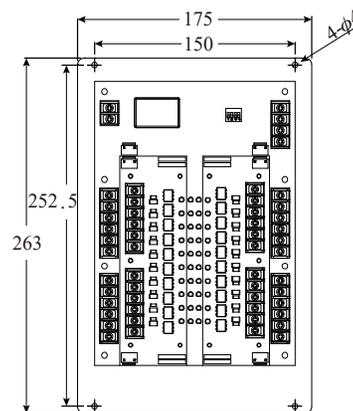
Motherboard

(Unit:mm)

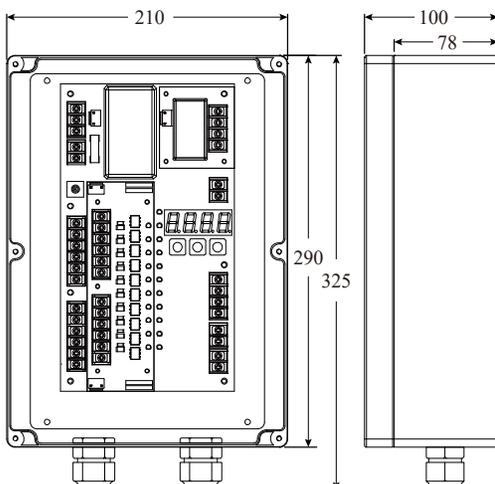


Expansionboard

Moduleboard



Outer Box



SPECIFICATION

Item	Specification	
	Motherboard	Expansionboard
Power supply	100~240Vac \pm 10%, 50/60 Hz	100~240Vac \pm 10%, 50/60 Hz (Power input must be provided by the motherboard)
Power consumption	3 VA (excluding output)	
Operating temp.	-20°C~70°C	
Operating humidity	RH 20~85%	
Output type (optional)	AC Output: consistent with power supply voltage, max. 1A DC Output: 24V, max. 1.25A	
Output point (optional)	10、20	20、30、40
Pulse jet interval	1~999 seconds	N/A
Pulse jet time	10 milliseconds ~ 9990 milliseconds	
Shutdown cycle function	Yes	
Remote control function	Yes	
4~20mA input (optional)	Yes	
Alarm output contact	SPST 3A 250Vac / 24Vdc	
Outer box (optional)	210 × 290 × 100, box ABS cover PC	

AEX6 Suggested Configuration

	10 point	20 point	30 point	40 point	50 point	60 point
Motherboard	1	1	1	1	1	1
Expansionboard	0	0	1	1	1	1
Module board	0	1	0	1	2	3

	70 point	80 point	90 point	100 point
Motherboard	1	1	1	1
Expansionboard	2	2	2	2
Module board	2	3	4	5

- ※ Motherboard is necessary for all different combinations of expansion/ module boards.
- ※ Min. port numbers: Motherboard: 10 points/ Expansionboard: 20 points/ Module board: (fixed 10 points).
- ※ Referred to above table for suggested combinations for 10 ~ 100 points, it can be up to 620 points as maximum.

ORDER INSTRUCTIONS

AEX 6 ⁰⁵ ⁰⁶ 0 0 - ⁰⁹ ¹⁰ ¹¹ ¹²

⁰⁵ ⁰⁶ **Output type**

- 0A: Sequence control + AC output
- 0D: Sequence control + DC output

⁰⁹ **External input**

- N: None
- I : 4~20mA input

¹⁰ **Outer box**

- A: None
- B: Yes

¹¹ ¹² **Control point(s)**

- 01: 10 points
- 02: 20 points
- 03: 30 points
- ⋮
- 62: 620 points

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