Dust collector components

Pulse Valves
Valves are characterized by a quick opening which allows a high jet and a reduced air consumption in a short time

Control Pulse Valves
Economiser for controlling the pneumatic cleaning function of industrial dust collection systems

Cartridge Filter
Suitable for the filtration of fine dusts

cirbell@outlook.co.th http://cirbell.com +66 2077-9025

CIRBELL CO., LTD.

CIRBELL INDEX

TURBO PULSE VALVE

ACCU PULSE VALVE

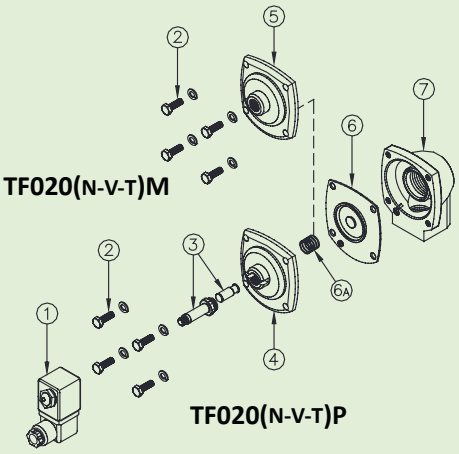
Pulse Jet Valves

Valves are characterized by a quick opening which allows a high jet and a reduced air consumption in a short time

VALVES WITH THREADED CONNECTORS - TF SERIES - Ø ¾"-1"-1 ½"-2"-2 ½"

FEATURES	
Fluids	Non-lubricated filtered air
Operating temperature	Neoprene diaphragm -20°C +80°C Viton diaphragm -20°C +200°C Low T. diaphragm -40°C; +80°C
Operating pressure	between 0.5 and 7.5 bar
Body and cover	Die-cast aluminium
Pilot core	Stainless steel
Screws and bolts	Stainless steel
Coil insulation	Class H
Connector	PG 9 EN175301-803
Connector + coil protection	IP65 EN60529
Standard voltage	24V/50-60Hz (±10%) 19VA
	115V/50-60Hz (±10%) 19VA
	230V/50-60Hz (±10%) 19VA
	24VDC (± 10%) 18 Watt

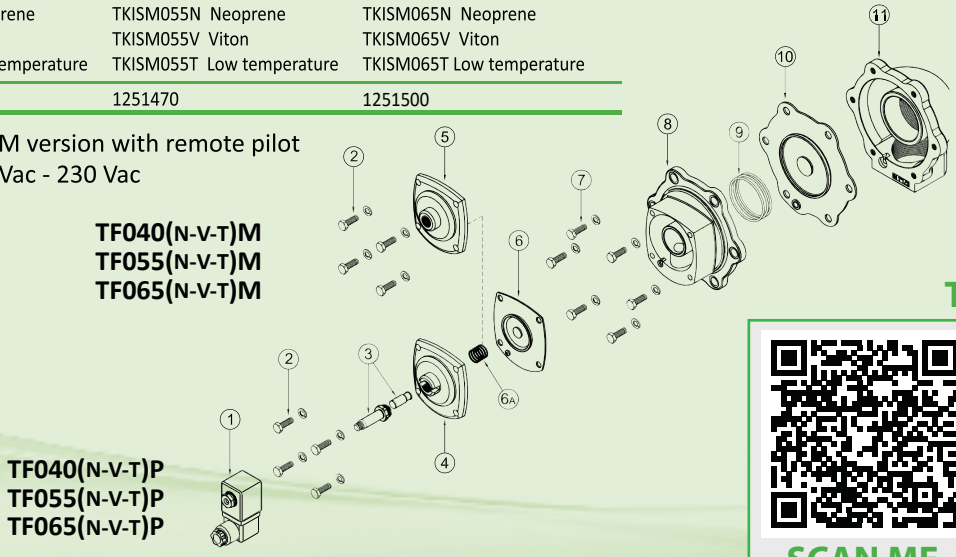
DESCRIPTION		TF020(N-V-T)P / TF020(N-V-T)M	TF025(N-V-T)P / TF025(N-V-T)M
1	Coil - Connector	BH10 V## / V##	BH10 V## / V##
2	Screws - Washers	TKITVTE06X20X4	TKITVTE06X20X4
3	Pilot unit	1331080	1331080
4	Pilot cover	1251750	1251750
5	Remote cover	1251770	1251770
6	Diaphragm (N-V-T)	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature
6a	Diaphragm spring	3241002	3241002
7	Valve body	1251120	1251190



TFP version with built-in pilot / TFM version with remote pilot

DESCRIPTION		TF040(N-V-T)P TF040(N-V-T)M	TF055(N-V-T)P TF055(N-V-T)M	TF065(N-V-T)P TF065(N-V-T)M
1	Coil + Connector	BH10 V## / V##	BH10 V## / V##	BH10 V## / V##
2	Screws + Washers	TKITVTE06X20X4	TKITVTE06X20X4	TKITVTE06X20X4
3	Pilot unit	1331080	1331080	1331080
4	Pilot cover	1251750	1251750	1251750
5	Remote cover	1251770	1251770	1251770
6	Secondary Diaphragm (N-V-T)	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature
6a	Diaphragm spring	3241002	3241002	3241002
7	Screws + Washers	TKITVTE08X20X6	TKITVTE10X25X6	TKITVTE10X25X6
8	Cover	1251620	1251660	1251660
9	Diaphragm spring	3241024	3241024	3241024
10	Primary Diaphragm (N-V-T)	TKISM040N Neoprene TKISM040V Viton TKISM040T Low temperature	TKISM055N Neoprene TKISM055V Viton TKISM055T Low temperature	TKISM065N Neoprene TKISM065V Viton TKISM065T Low temperature
11	Valve body	1251400	1251470	1251500

TFP version with built-in pilot / TFM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac



TF

SCAN ME

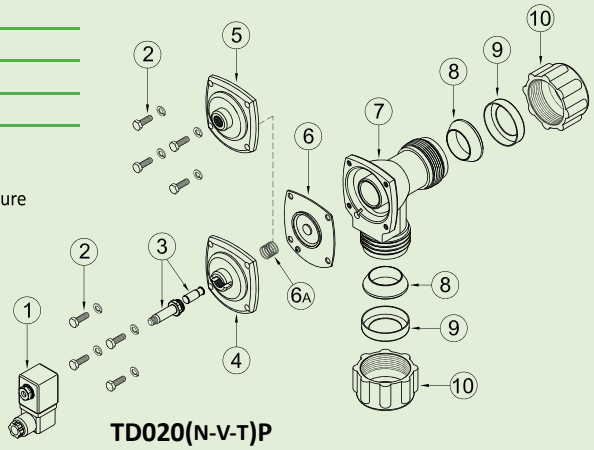
VALVES WITH QUICK CONNECTORS - TD SERIES - Ø ¾”- 1”- 1 ½”

FEATURES	
Fluids	Non-lubricated filtered air
Operating temperature	Neoprene diaphragm -20°C +80°C Viton diaphragm -20°C +200°C Low T. diaphragm -40°C; +80°C
Operating pressure	between 0.5 and 7.5 bar
Body and cover	Die-cast aluminium
Pilot core	Stainless steel
Screws and bolts	Stainless steel
Coil insulation	Class H
Connector	PG 9 EN175301-803
Connector + coil protection	IP65 EN60529
Standard voltage	24V/50-60Hz (±10%) 19VA
	115V/50-60Hz (±10%) 19VA
	230V/50-60Hz (±10%) 19VA
	24VDC (± 10%) 18 Watt

	DESCRIPTION	TD020(N-V-T)P / TD020(N-V-T)M	TD025(N-V-T)P / TD025(N-V-T)M
1	Coil - Connector	BH10 V## / V##	BH10 V## / V##
2	Screws - Washers	TKITVTE06X18X4	TKITVTE06X18X4
3	Pilot unit	1331080	1331080
4	Pilot cover	1251750	1251750
5	Remote cover	1251770	1251770
6	Diaphragm (N-V-T)	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature
6a	Diaphragm spring	3241002	3241002
7	Valve body	1251110	1251310
8	Conical seal	3301010	3301013
9	Retaining ring	1321006	1321010
10	Hose clamp high nut	1281040	1281045

TDP version with built-in pilot
TDM version with remote pilot

TD020(N-V-T)M
TD025(N-V-T)M



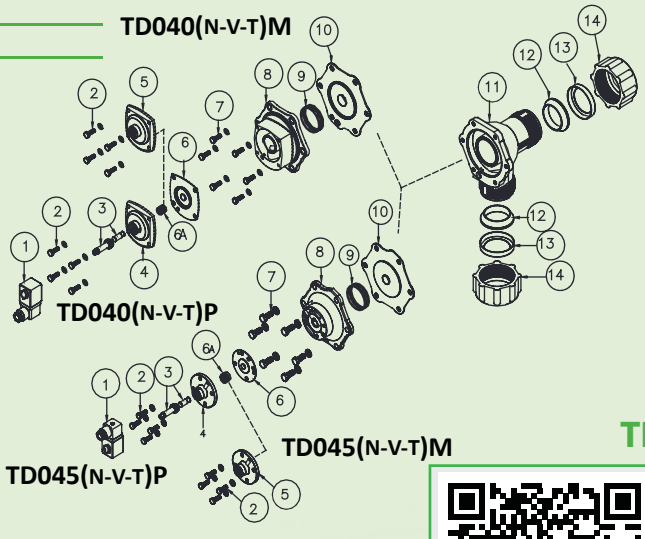
TD020(N-V-T)P
TD025(N-V-T)P

	DESCRIPTION	TD040(N-V-T)P / TD040(N-V-T)M	TD045(N-V-T)P / TD045(N-V-T)M
1	Coil - Connector	BH10 V## / V##	BH10 V## / V##
2	Screws - Washers	TKITVTE06X20X4	TKITVTE06X18X4
3	Pilot unit	1331080	1331080
4	Pilot cover	1251750	1251715
5	Remote cover	1251770	1251745
6	Secondary diaphragm (N-V-T)	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature	TKISM010N Neoprene TKISM010V Viton TKISM010T Low temperature
6a	Diaphragm spring	3241002	3241002
7	Screws - Washers	TKITVTE08X20X6	TKITVTE08X20X6
8	Cover	1251620	1251640
9	Diaphragm spring	3241024	3241024
10	Primary Diaphragm (N-V-T)	TKISM040N Neoprene TKISM040V Viton TKISM040T Low temperature	TKISM045N Neoprene TKISM045V Viton TKISM045T Low temperature
11	Valve body	1251440	1251440
12	Conical seal	3301017	3301017
13	Retaining ring	1321012	1321012
14	Hose clamp high nut	1281050	1281050

TDP version with built-in pilot
TDM version with remote pilot

V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

TD040(N-V-T)M



TD040(N-V-T)P

TD045(N-V-T)M

TD045(N-V-T)P

TD

SCAN ME

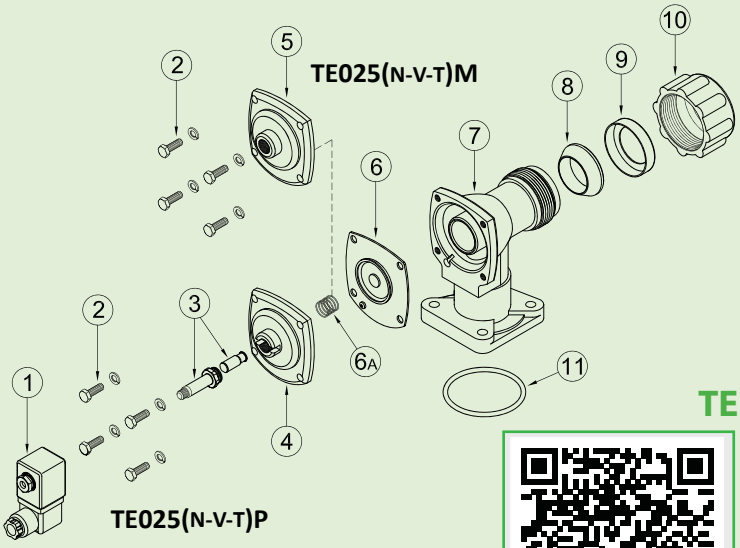
FLANGED VALVES - TE SERIES - Ø ¾”- 1”- 1 ½”

TEP version with built-in pilot
TEM version with remote pilot

FEATURES	
Fluids	Non-lubricated filtered air
Operating temperature	Neoprene diaphragm -20°C +80°C Viton diaphragm -20°C +200°C Low T. diaphragm -40°C; +80°C
Operating pressure	between 0.5 and 7.5 bar
Body and cover	Die-cast aluminium
Pilot core	Stainless steel
Screws and bolts	Stainless steel
Coil insulation	Class H
Connector	PG 9 EN175301-803
Connector + coil protection	IP65 EN60529
Standard voltage	24V/50-60Hz (±10%) 19VA
	115V/50-60Hz (±10%) 19VA
	230V/50-60Hz (±10%) 19VA
	24VDC (± 10%) 18 Watt

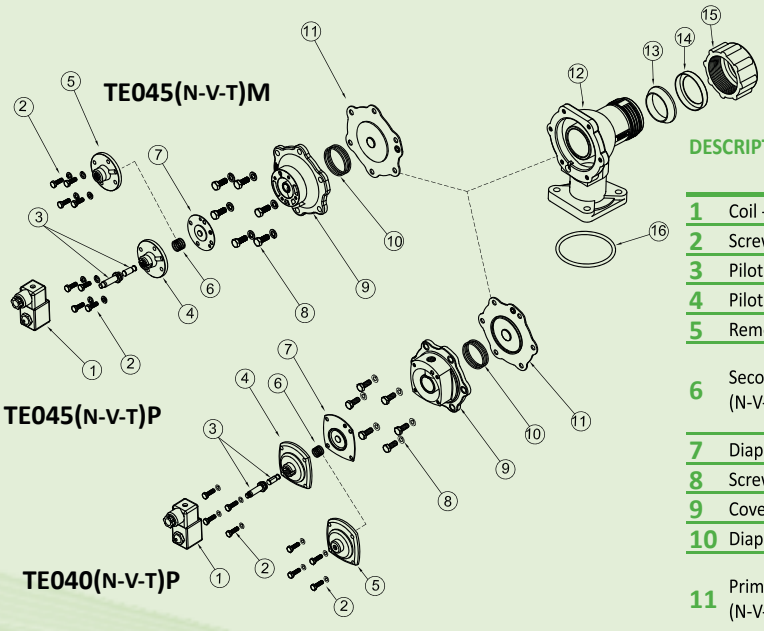
DESCRIPTION		TE025(N-V-T)P / TE025(N-V-T)M
1	Coil - Connector	BH10 V## / V##
2	Screws - Washers	TKITVTE06X18X4
3	Pilot unit	1331080
4	Pilot cover	1251752
5	Remote cover	1251776
6a	Diaphragm spring	3241002
6	Diaphragm (N-V-T)	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature
7	Valve body	1251280
8	Conical seal	3301013
9	Retaining ring	1321010
10	Hose clamp high nut	1281045
11	O-R gasket	3301271

V## / V## = 24 Vdc -
24 Vac - 115 Vac - 230 Vac



TE

SCAN ME



DESCRIPTION		TE040(N-V-T)P TE040(N-V-T)M	TE045(N-V-T)P TE045(N-V-T)M
1	Coil - Connector	BH10 V## / V##	BH10 V## / V##
2	Screws - Washers	TKITVTE06X20X4	TKITVTE06X18X4
3	Pilot unit	1331080	1331080
4	Pilot cover	1251750	1251715
5	Remote cover	1251770	1251745
6	Secondary diaphragm (N-V-T)	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature	TKISM010N Neoprene TKISM010V Viton TKISM010T Low temperature
7	Diaphragm spring	3241002	3241006
8	Screws - Washers	TKITVTE08X20X6	TKITVTE08X20X6
9	Cover	1251620	1251640
10	Diaphragm spring	3241024	3241024
11	Primary diaphragm (N-V-T)	TKISM040N Neoprene TKISM040V Viton TKISM040T Low temperature	TKISM045N Neoprene TKISM045V Viton TKISM045T Low temperature
12	Valve body	1251430	1251430
13	Conical seal	3301017	3301017
14	Retaining ring	1321012	1321012
15	Hose clamp high nut	1281050	1281050
16	O-R gasket	3301281	3301281

VALVES FOR FLAT SURFACES - TS SERIES - Ø 1”

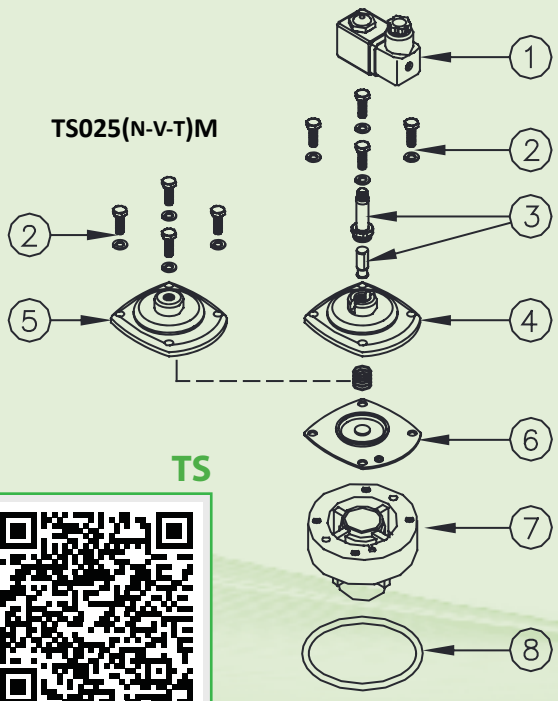
FEATURES	
Fluids	Non-lubricated filtered air
Operating temperature	Neoprene diaphragm -20°C +80°C Viton diaphragm -20°C +200°C Low T. diaphragm -40°C; +80°C
Operating pressure	between 0.5 and 7.5 bar
Body and cover	Die-cast aluminium
Pilot core	Stainless steel
Screws and bolts	Stainless steel
Coil insulation	Class H
Connector	PG 9 EN175301-803
Connector + coil protection	IP65 EN60529
Standard voltage	24V/50-60Hz (±10%) 19VA
	115V/50-60Hz (±10%) 19VA
	230V/50-60Hz (±10%) 19VA
	24VDC (± 10%) 18 Watt

DESCRIPTION		TS025(N-V-T)P / TS025(N-V-T)M
1	Coil - Connector	BH10 V## / V##
2	Screws - Washers	TKITVTE06X20X4
3	Pilot unit	1331080
4	Pilot cover	1251750
5	Remote cover	1251770
6a	Diaphragm spring	3241002
6	Diaphragm (N-V-T)	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature
7	Valve body	1251290
8	O-R gasket	3301285

TSP version with built-in pilot / TSM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

TS025(N-V-T)P

TS025(N-V-T)M



TS

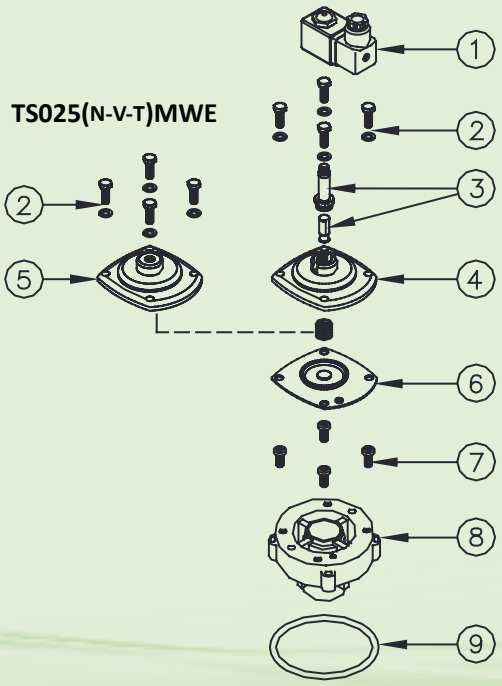
SCAN ME

DESCRIPTION		TS025(N-V-T)PWE / TS025(N-V-T)MWE
1	Coil - Connector	BH10 V## / V##
2	Screws - Washers	TKITVTE06X20X4
3	Pilot unit	1331080
4	Pilot cover	1251750
5	Remote cover	1251770
6a	Diaphragm spring	3241002
6	Diaphragm (N-V-T)	TKISM025N Neoprene TKISM025V Viton TKISM025T Low temperature
7	Screws - Washers	TKITVTE06X16X4
8	Valve body	1251300
9	O-R gasket	3301285

TSP version with built-in pilot / TSM version with remote pilot
V## / V## = 24 Vdc - 24 Vac - 115 Vac - 230 Vac

TS025(N-V-T)PWE

TS025(N-V-T)MWE



BULKHEAD QUICK CONNECTORS - PS/PD SERIES - Ø ¾”- 1”- 1½”- 2”

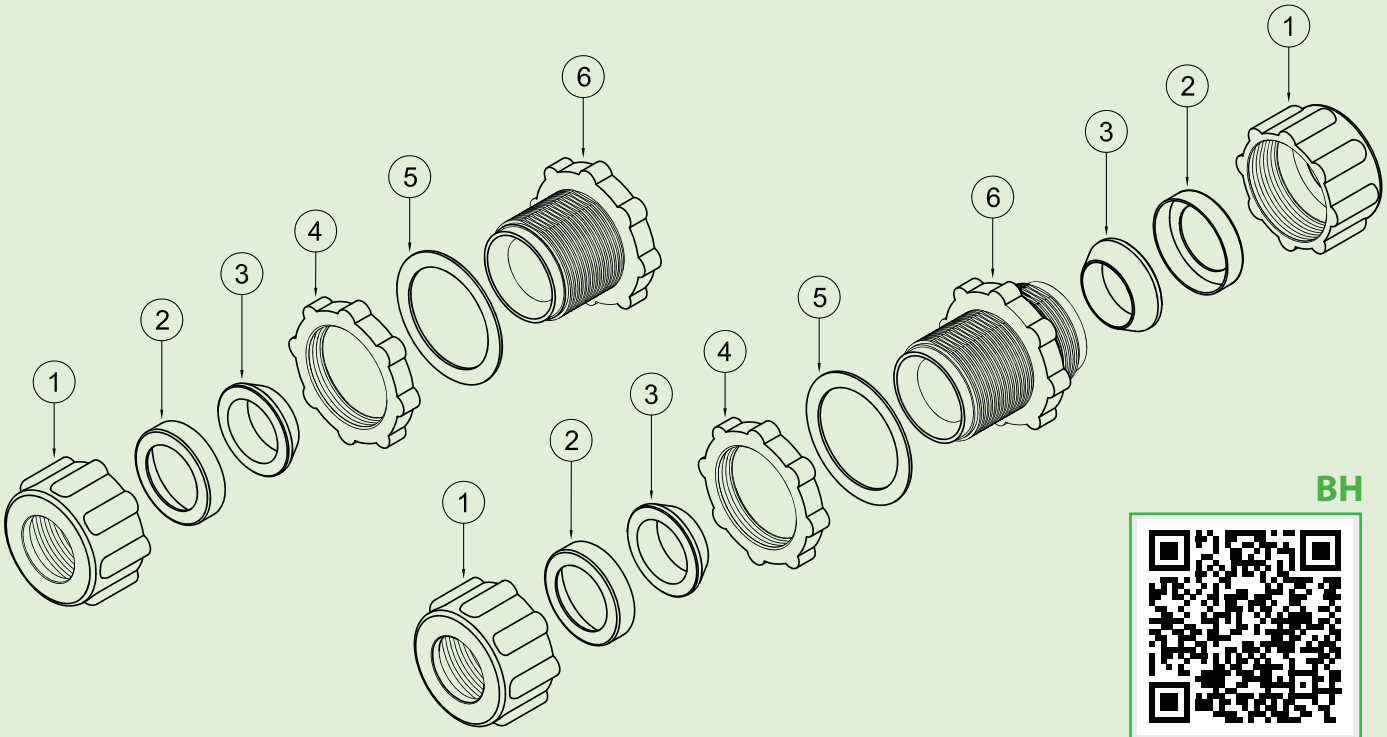
The bulkhead quick connectors are designed to allow air cannons to pass through the filter wall in a simple and rational way, without requiring welds or threaded connectors.

Turbo provides two ranges:

- PD series, used to connect two pipes
- PS series, used for the air cannon

Turbo also provides special keys for fastening nuts and lock nuts.
We recommend using then only in a pneumatic setting.
Do not use as a mechanical support.

DESCRIPTION		PS20	PS25	PS40	PS55
1	Nut	1281040	1281045	1281050	1281055
2	Retaining ring	1321006	1321010	1321012	1321014
3	Conical seal	3301010	3301013	3301017	3301020
4	Lock nut	3181036	3181036	3181032	3181022
5	Fibre gasket	3141529	3141529	3581000	3581014
6	Body	1252022	1252026	1252032	1251052



BH

SCAN ME

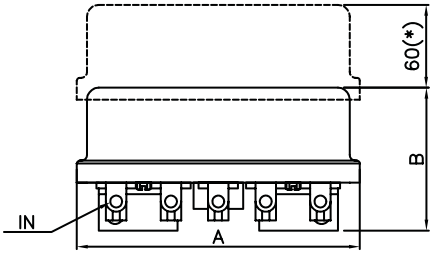
DESCRIPTION		PD20	PD25	PD40	PD55
1	Nut	1281040	1281045	1281050	1281055
2	Retaining ring	1321006	1321010	1321012	1321014
3	Conical seal	3301010	3301013	3301017	3301020
4	Lock nut	3181036	3181036	3181032	3181022
5	Fibre gasket	3141529	3141529	3581000	3581014
6	Body	1252020	1252024	1252028	1252034

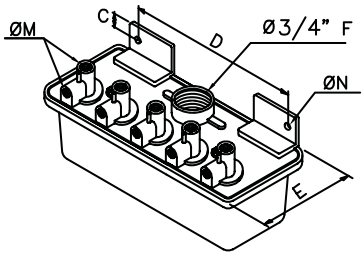
REMOTE PILOT ENCLOSURE - RCP SERIES

FEATURES	
Fluids	Non-lubricated filtered air
Operating pressure	between 0.5 and 7.5 bar
Operating temperature	-20°C; +80°C
with heating element	-40°C +80°C
Cover and base	Die-cast aluminium
Pilot core	Stainless steel
Screws and bolts	Stainless steel
Coil insulation	Class H
Protection	IP66
Standard voltage	230 -110 - 24V
	50-60 Hz 19 VA
	24VDC 15W
Maximum Valve Distance	3 Metres

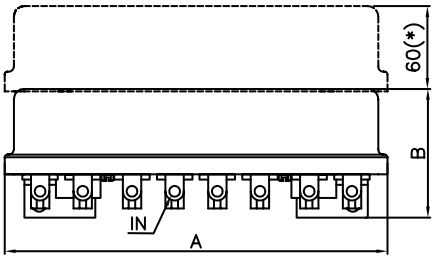
(*) Clearance for opening the cover

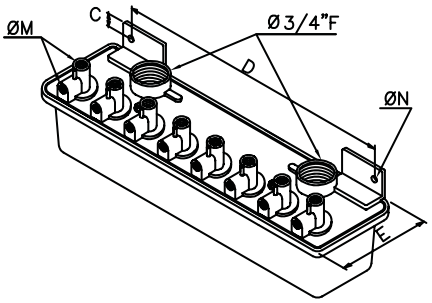
RCP5



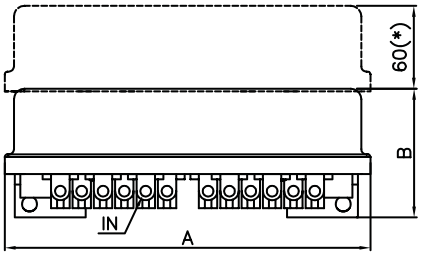


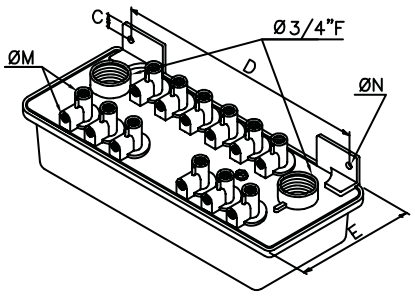
RCP8





RCP12





RCP

SCAN ME

MODEL	A	B	C	D	E	ØM	ØN	Weight (kg)
RCP5	210	98	10	156	100	⅛ "	11	1.7
RCP8	333	98	10	267	100	⅛ "	11	3.2
RCP12	306	97	10	237	152	⅛ "	11	4.4

Accu Pulse®

ACCU PULSE VALVE DMF-Z (Threaded connectors)

MODEL - DMF-Z Size ø ¾"- 1"- 1½" 2"

Technical Index

Working Pressure	:	0.1MPa -0.6 MPa
Working Media	:	Clean air
Voltage	:	DC24V (0.9A)
		AC110V (0.46A)
		AC220V (0.23A)
Temperature Level	:	-25 -80°C
Protection Class	:	IP65
Diaphragm Life	:	One million blows or 3 years

Material Construction

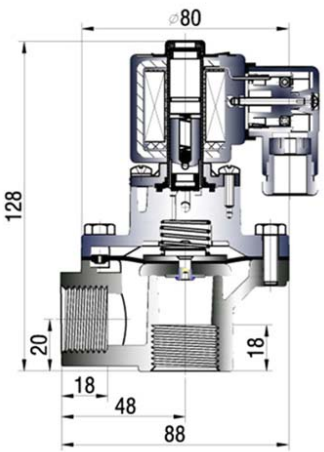
Body	:	ADC12diecast aluminium
Armature	:	430FR stainless steel
Diaphragm & Seals	:	Continental Nitrile
Spring	:	321 stainless steel
Screws	:	02 stainless steel

PULSE VALVE PROPERTY

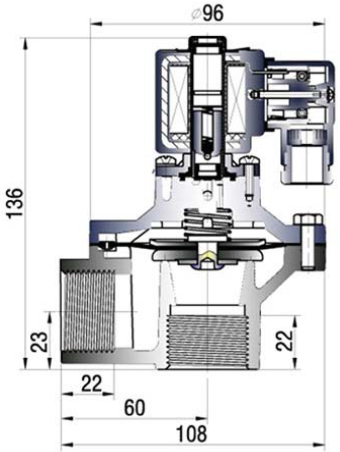
The DMF-Z electromagnetic valve employs the rubber diaphragm as the switch element of pulse valve. Theopening and closing of the valve is accomplished by changing the air room pressure in the front and back through the orifice and release hole.

The angle betweeninput and output ports of pulse valves within this series is 90°, called Right Angle Valve. It's input and output interface are designed to have internal threads connecting the short tube on the manifold box (air bag) and the injection pipe thread respectively. The valve is easy to install whichis applicable for various kinds of filter equipments by providingsatisfactory cleaning vibrating flow. Electromagnetic pulse valves of this series are dassified as eight categories below : 20mm[3/4"), 25mm(1"), 40mm(1 1/2) ,50mm(2''). Among which 20mm (3/4'') and 25mm (1") are single diaphragm valve and 40mm(1 1/2")-55mm(2") are double diaphragms valve.

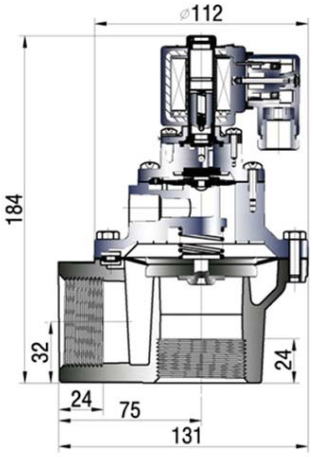
DRAWING AND DIAMENTION



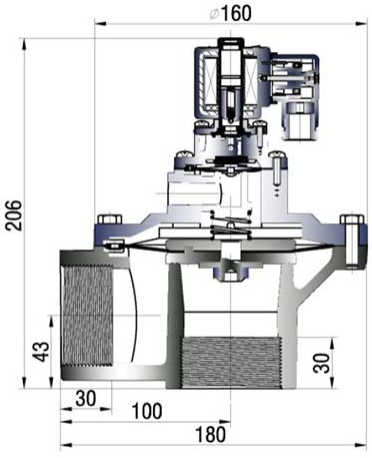
DMF-Z-20 (3/4")



DMF-Z-25 (1")



DMF-Z-40S (1 1/2")

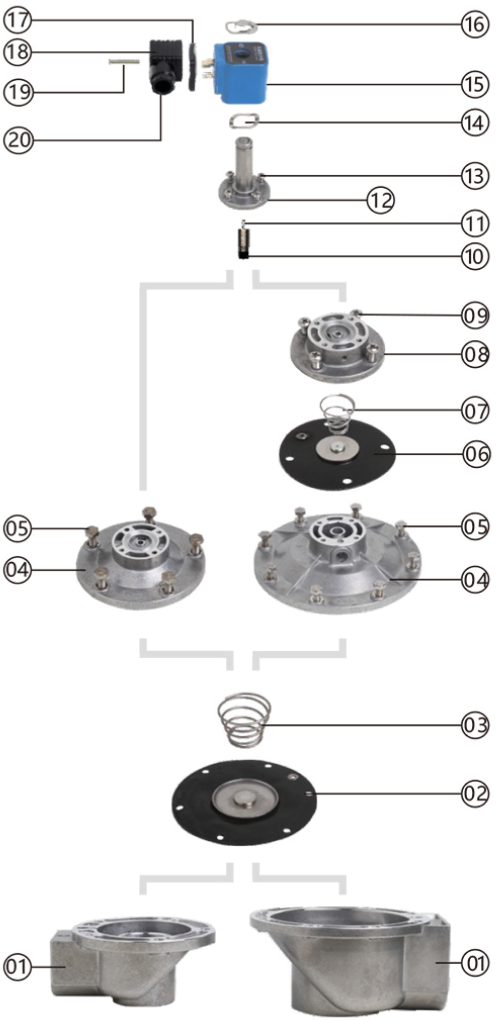


DMF-Z-50S (2")

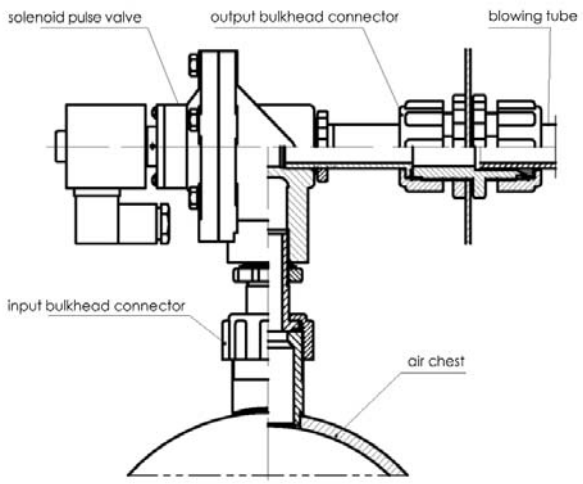
Accu Pulse®

ACCU PULSE VALVE DMF-Z (Threaded connectors) PART

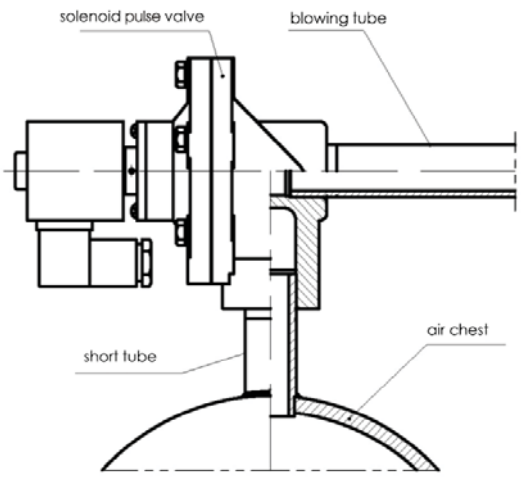
01 valve body
02 diaphragm (primary)
03 spring
04 valve top
05 bolt
06 diaphragm (assistant)
07 spring
08 valve top
09 screw
10 armature
11 spring
12 guidance
13 screw
14 waved washer
15 solenoid coil
16 block spring
17 sealing washer
18 junction box
19 screw
20 sealing connector



INSTALLATION



DMF-Z INSTALLATION (1)



DMF-Z INSTALLATION (2)

Accu Pulse®

ACCU PULSE VALVE DMF-ZM (Quick connectors)

MODEL - DMF-ZM Size ø ¾"- 1"- 1½"

Technical Index

Working Pressure	:	0.1MPa -0.6 MPa
Working Media	:	Clean air
Voltage	:	DC24V(0.9A)
		AC110V(0.46A)
		AC220V (0.23A)
Temperature Level	:	-25 -80°C
Protection Class	:	IP65
Diaphragm Life	:	One million blows or 3 years

Material Construction

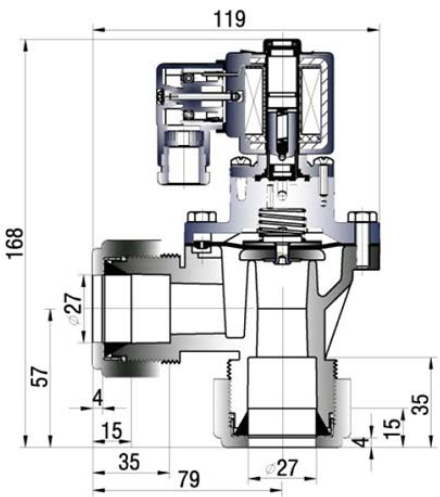
Body	:	ADC12diecast aluminium
Armature	:	430FR stainless steel
Diaphragm & Seals	:	Continental Nitrile
Spring	:	321 stainless steel
Screws	:	02 stainless steel

PULSE VALVE PROPERTY

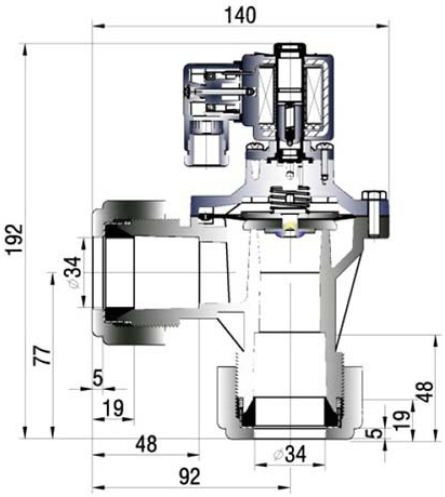
The DMF-ZM electromagnetic valve employs the rubber diaphragm as the switch element of pulse valve. The opening and closing of the valve is accomplished by changing the air room pressurein the front and back: through the orifice and release hole.

The angle between the input and output ports of pulse valves within this series is 90°,which could be called as Right Angle Valve. It's input and output interface are designed with outer thread equipping with press nut. During the installation, one should insert the short tube on the air chest(air bag) and the injection pipe into the conical sealing rings of input and output interfaces respectively and tighten the press nut. The valve is easy to install wihich is applicable for various k:inds of filter equipments by providingsatisfactory cleaningvibrating flow.

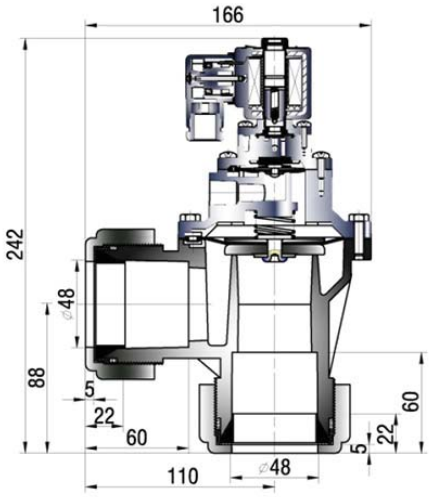
DRAWING AND DIAMENTION



DMF-ZM-20 (3/4")



DMF-ZM-25 (1")

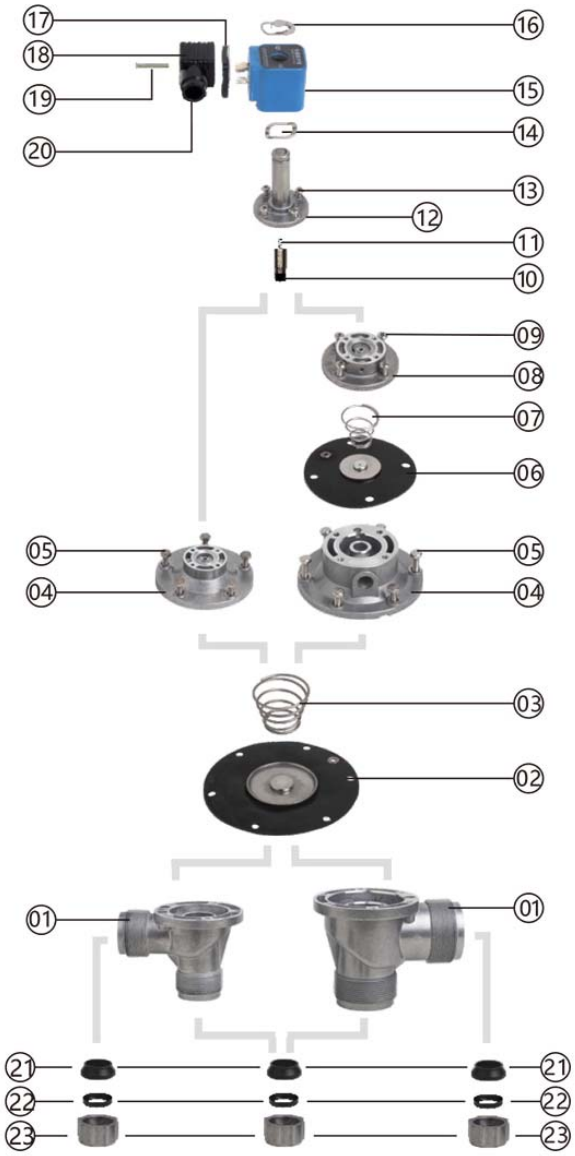


DMF-ZM-40S (1 1/2")

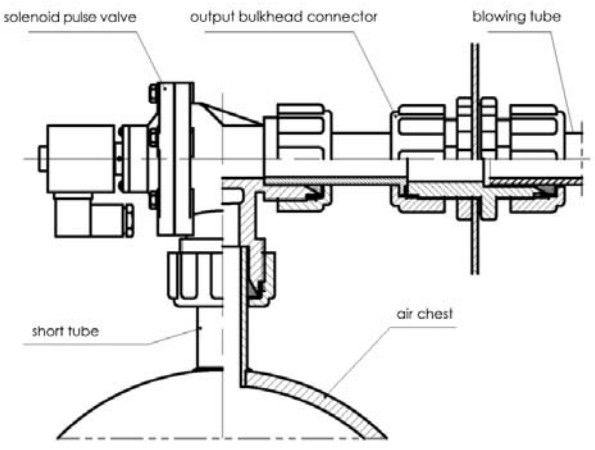
Accu Pulse®

ACCU PULSE VALVE DMF-ZM (Quick connectors) PART

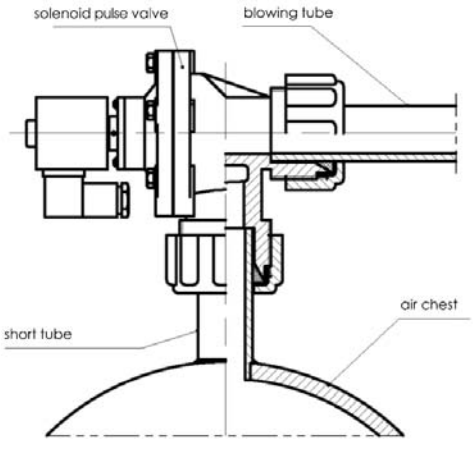
01 valve body
02 diaphragm (primary)
03 spring
04 valve top
05 bolt
06 diaphragm (assistant)
07 spring
08 valve top
09 screw
10 armature
11 spring
12 guidance
13 screw
14 waved washer
15 solenoid coil
16 block spring
17 sealing washer
18 junction box
19 screw
20 sealing connector
21 cone sealing washer
22 bowl washer
23 press nut



INSTALLATION



DMF-Z INSTALLATION (1)



DMF-Z INSTALLATION (2)

Accu Pulse®

PULSE VALVE DMF-Y (Valves for flat surface)

MODEL - DMF-Y Size ø ¾"- 1"- 1½"

Technical Index

Working Pressure	:	0.1MPa -0.6 MPa
Working Media	:	Clean air
Voltage	:	DC24V(0.9A)
		AC110V(0.46A)
		AC220V (0.23A)
Temperature Level	:	-25 -80°C
Protection Class	:	IP65
Diaphragm Life	:	One million blows or 3 years

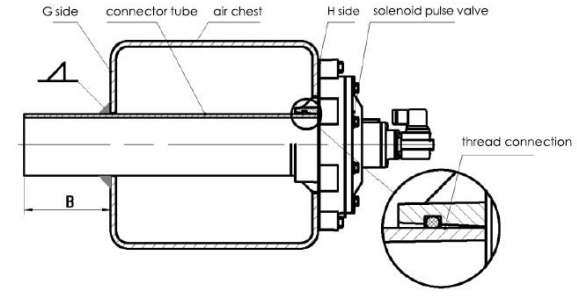
Material Construction

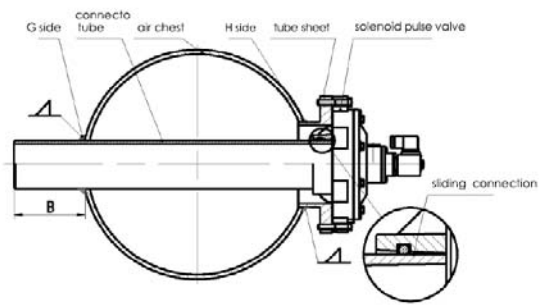
Body	:	ADC12diecast aluminium
Armature	:	430FR stainless steel
Diaphragm & Seals	:	Continental Nitrile
Spring	:	321 stainless steel
Screws	:	02 stainless steel

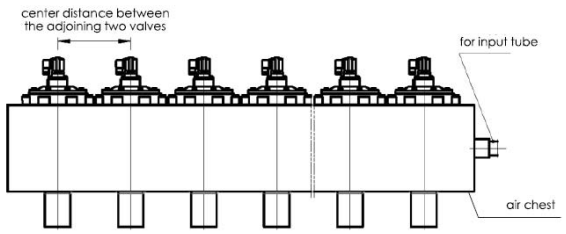
PULSE VALVE PROPERTY

Valves of this series are directly installed on the air chest [air bag) which is called immersion valve (also called as injection valve or low pressure valve). During theinstallation, one should fix the mounting hole on the collar flange of the valve with the air chest through bolts and connect the dust blowing tube with the output port extension tube outside the air chest. The character of the valve is good flow, low pressure loss and could provide satisfactory cleaning vibrating flow in the low pressure environments. The valve is applicable for various kinds of filter equipments.

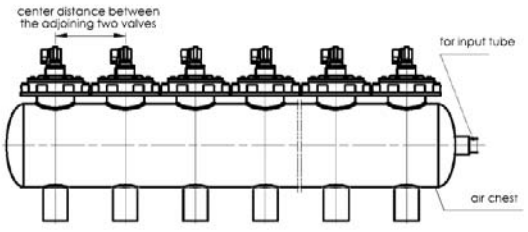
INSTALLATION







DMF-Z INSTALLATION (1)



DMF-Z INSTALLATION (2)

Accu Pulse®

Bulkhead Quick Connectors (FAP)

MODEL FAP-2 Size ø ¾"- 1"- 1½"

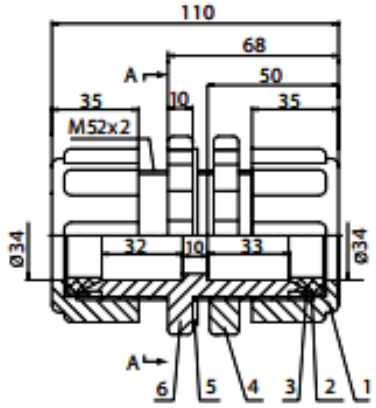
Material Construction

Body	:	diecast aluminium
Seals	:	NBR

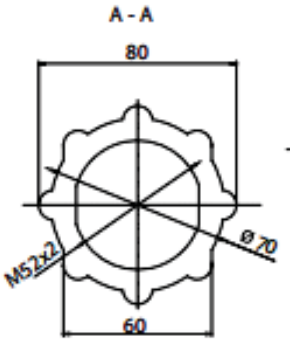
Special joint, which is reliable in use and convenient for installation and maintenance

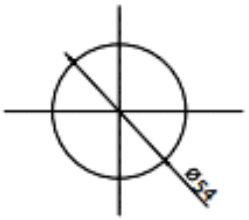
.

FAP-A-2-20



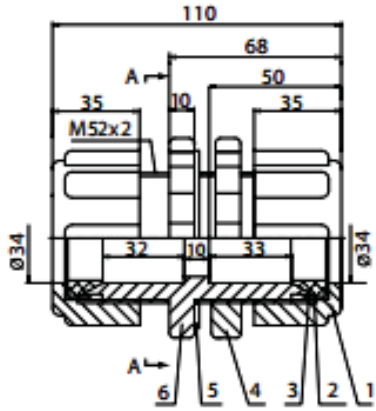
1. Compression nut
2. Bowl washer
3. Conical seal washer
4. Jam nut
5. Seal piece
6. Wall-crossing pipe



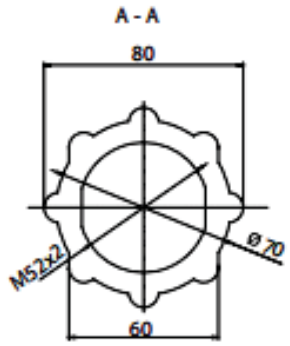


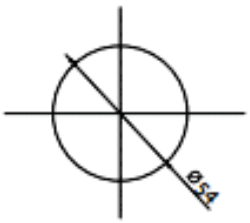
Hole size for assembly

FAP-A-2-25



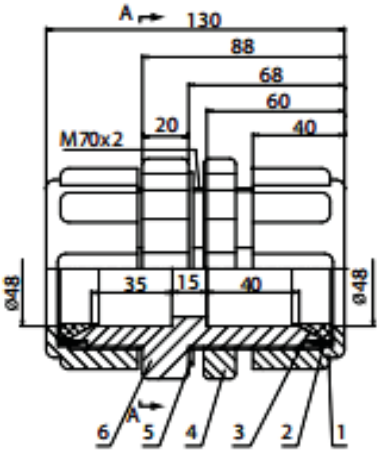
1. Compression nut
2. Bowl washer
3. Conical seal washer
4. Jam nut
5. Seal piece
6. Wall-crossing pipe



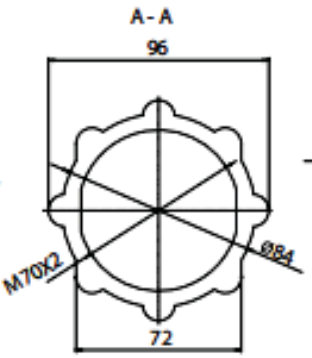


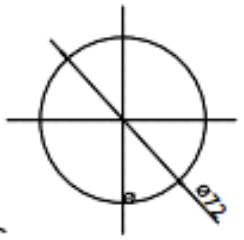
Hole size for assembly

FAP-A-2-40

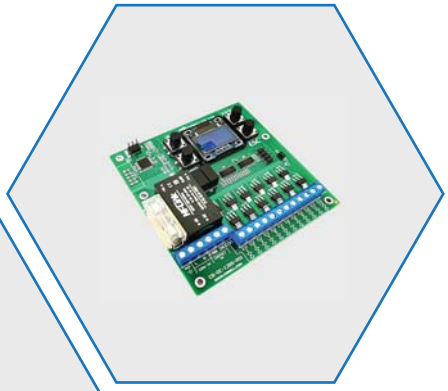


1. Compression nut
2. Bowl washer
3. Conical seal washer
4. Jam nut
5. Seal piece
6. Wall-crossing pipe





Hole size for assembly



Control Pulse Valves

Economiser for controlling the pneumatic cleaning function of industrial dust collection systems

CB-STD-8-24M control unit sequencer 8-24 output channels

STD SOLUTION

Sequencer for controlling the pneumatic cleaning of industrial dust collector systems

Advance Method, state-of-the-art performances: advanced functions to manage the cleaning cycle, large number of parameters andmanagement via serial line. Economisers in the STD SOLUTION range are digital sequential timers switches and are able to control from 8 to 24 solenoid valve srespectively.

In all versions there is a display that can display the most important features and it is possible to programme the various and customizable internal parameters with the 3 buttons on the panel. The states and functions are displayed by the lighting of LCD on the front panel of the instrument.

The controllers with AC/DC power supply are able to control both electronic valves 230VAC and 24VDC.

WARRANTY 2 YEARS WARRANTY

TECHNICAL SPECIFICATIONS

Power supply voltage	230 Vac 50-60 Hz ± 10 % [24 Vdc (Optional)]
Output voltage for solenoid valves	230 Vac 50-60 Hz 24 Vdc (Optional)
Inputs	Remote enabling [Terminal REMOTE IN **]** Post-cleaning cycles fan switch. (Terminal [FAN]) Auxiliary Relay [for screw and rotary,Terminal REMOTE OUT]
Solenoid valves output	Channels **8** **16** **24**
Electric consumption	28 Watts at maximum load
Maximum load:	3A @ 250Vac, 2A @ 24Vdc,
Alarm Relays	NO
Screen	Backlight LCD display
5 x 20 mm glass fuse	230 Vac 1 x 2 A 24 Vdc 1 x 2 A
Operating temperature	-10 °C - 55 °C
Casing	Base in ABSLid in Polycarbonate IP66/IP67

CIR BELL CO., LTD 107/114 MOO 13 SOI MAHACHAI BANGNA-TRAD ROAD BANGPLEEYAAI BANGPLEE DISTRICT SAMUTPRAKARN PROVINCE 10540
TEL : 0-2077-9025 +66-813919155 EMAIL : cirbell@outlook.co.th http://www.cirbell.com

CB-STD-8-24AT control unit sequencer 8-24 output channels **with built-in differential pressure**

STD SOLUTION

Sequencer for controlling the pneumatic cleaning of industrial dust collector systems **with built-in differential pressure**

Advance Method, state-of-the-art performances: advanced functions to manage the cleaning cycle, large number of parameters andmanagement via serial line. Economisers in the STD SOLUTION range are digital sequential timers switches and are able to control from 8 to 24 solenoid valvesrespectively.

In all versions there is a display that can display the most important features and it is possible to programme the various and customizable internal parameters with the 3 buttons on the panel. The states and functions are displayed by the lighting of LCD on the front panel of the instrument.

The controllers with AC/DC power supply are able to control both electronic valves 230VAC and 24VDC.

TECHNICAL SPECIFICATIONS

Power supply voltage	230 Vac 50-60 Hz ± 10 % [24 Vdc (Optional)]
Output voltage for solenoid valves	230 Vac 50-60 Hz 24 Vdc (Optional)
Inputs	Remote enabling [Terminal REMOTE IN **]** Post-cleaning cycles fan switch. (Terminal [FAN]) Auxiliary Relay [for screw and rotary,Terminal REMOTE OUT]
Solenoid valves output	channels **8** **16** **24**
Electric consumption	28 Watts at maximum load
Alarm Relays	1 Point normally open
Maximum load:	3A @ 250Vac, 2A @ 24Vdc,
Screen	Backlight LCD display
5 x 20 mm glass fuse	230 Vac 1 x 2 A 24 Vdc 1 x 2 A
Operating temperature	-10 °C - 55 °C
Differential pressure	0-10 Kpa (2 point setting Pa , kPa , inH2O ,mmH2O)
Casing	Base in ABSLid in Polycarbonate IP66/IP67

CIR BELL CO., LTD 107/114 MOO 13 SOI MAHACHAI BANGNA-TRAD ROAD BANGPLEEYAAI BANGPLEE DISTRICT SAMUTPRAKARN PROVINCE 10540
TEL : 0-2077-9025 +66-813919155 EMAIL : cirbell@outlook.co.th http://www.cirbell.com

CB-ECO-4-16M Control unit sequencer 4-16 output channels (Manual)

ECO SOLUTION

Sequencer for controlling the pneumatic cleaning of industrial dust collector systems

Classic Method, state-of-the-art performances and basic functions to manage the cleaning cycle, large number of parameters andmanagement via serial line. Economisers in the ECO SOLUTION range are digital sequential timers switches and are able to control from 4 to 16 solenoid valves respectively.

In all versions there is a full display that can display the most important features and it is possible to programme the various and customizable internal parameters with the 3 buttons on the panel. The states and functions are displayed by the lighting of LCD on the front panel of the instrument.

The controllers with AC/DC power supply are able to control both electronic valves 220VAC and 24VDC.

TECHNICAL SPECIFICATIONS

Power supply voltage	230 VAC 50-60 Hz ± 10 % ,24 Vdc (Optional)
Output voltage for solenoid valves	230 VAC 50-60 Hz 24 VDC (Optional)
Inputs	Post-cleaning cycles fan switch. (Terminal [FAN])
Solenoid valves output	Channels **4** **8** **12** **16**
Electric consumption	28 Watts at maximum load
Alarm Relays	NO
Maximum load:	3A @ 250Vac, 2A @ 24Vdc,
Screen	LCD display
5 x 20 mm glass fuse	230 Vac 1 x 2 A 24 Vdc 1 x 2 A
Operating temperature	-10 °C - 55 °C
Casing	Base in ABSLid in Polycarbonate

CIR BELL CO., LTD 107/114 MOO 13 SOI MAHACHAI BANGNA-TRAD ROAD BANGPLEEYAAI BANGPLEE DISTRICT SAMUTPRAKARN PROVINCE 10540
TEL : 0-2077-9025 +66-813919155 EMAIL : cirbell@outlook.co.th http://www.cirbell.com

CB-ECO-4-16AT control unit sequencer 4-16 output channels **with built-in differential pressure**

ECO SOLUTION

Sequencer for controlling the pneumatic cleaning of industrial dust collector systems **with built-in differential pressure**

Classic Method, state-of-the-art performances and basic functions to manage the cleaning cycle, large number of parameters andmanagement via serial line. Economisers in the ECO SOLUTION range are digital sequential timers switches and are able to control from 4 to 16 solenoid valves respectively.

In all versions there is a large display that can display the most important features and it is possible to programme the various and customizable internal parameters with the 3 buttons on the panel. The states and functions are displayed by the lighting of LCD on the front panel of the instrument.

The controllers with AC/DC power supply are able to control both electronic valves 220VAC and 24VDC.

TECHNICAL SPECIFICATIONS

Power supply voltage	230 Vac 50-60 Hz ± 10 % , 24 Vdc (Optional)
Output voltage for solenoid valves	230 Vac 50-60 Hz 24 Vdc (Optional)
Inputs	Post-cleaning cycles fan switch. (Terminal [FAN])
Solenoid valves output	Channels **4** **8** **12** **16**
Electric consumption	28 Watts at maximum load
Alarm Relays	**1 Point normally open (Terminal [ALARM])**
Maximum load:	3A @ 250Vac, 2A @ 24Vdc,
Screen	LCD display
5 x 20 mm glass fuse	230 Vac 1 x 2 A 24 Vdc 1 x 2 A
Operating temperature	-10 °C - 55 °C
Differential pressure	**0-10 Kpa (2 point setting Pa , kPa , inH2O ,mmH2O)**
Casing	Base in ABSLid in Polycarbonate

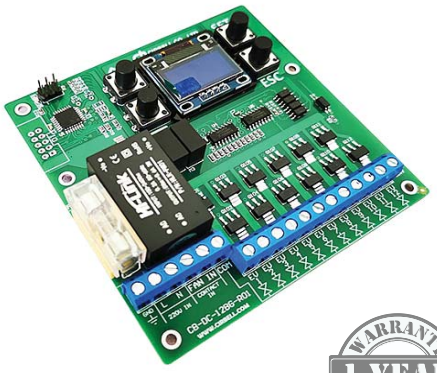
CIR BELL CO., LTD 107/114 MOO 13 SOI MAHACHAI BANGNA-TRAD ROAD BANGPLEEYAAI BANGPLEE DISTRICT SAMUTPRAKARN PROVINCE 10540
TEL : 0-2077-9025 +66-813919155 EMAIL : cirbell@outlook.co.th http://www.cirbell.com

CB-BUDGET-4-16M Control unit sequencer 6-12 output channels (Manual)

BUDGET SOLUTION

Sequencer for controlling the pneumatic cleaning of industrial dust collector systems ,Low cost with high performance and guaranteed reliability are able to control from 6 to 12 solenoid valves respectively.

In all versions there is a mini display that can display the most important features and it is possible to programme the various and customizable internal parameters with the 4 buttons on the panel. The states and functions are displayed by the lighting of LED on the front panel of the instrument.



WARRANTY 1 YEAR GUARANTEE

TECHNICAL SPECIFICATIONS

Power supply voltage	230 VAC 50-60 Hz ± 10 %
Output voltage for solenoid valves	230 VAC 50-60 Hz
Inputs	Post-cleaning cycles fan switch. (Terminal [FAN])
Solenoid valves output	Channels **6** **12**
Electric consumption	28 Watts at maximum load
Maximum load:	3A @ 250Vac,
Screen	LED display
5 x 20 mm glass fuse	230 Vac 1 x 2 A
Operating temperature	-10 °C - 55 °C
Casing	NO

SCAN ME

SCREEN LCD DISPLAY

Press + to Change Value
กดปุ่ม + เพื่อเปลี่ยนข้อมูลตัวเลข

Press - to Move Cursor
กดปุ่ม - เพื่อเลื่อนตำแหน่งตัวเลข

Press SET to SETUP / ENTER
กดปุ่ม SET เพื่อเข้า เมนูหรือ ยืนยันข้อมูล

Press ESC to ESCAPE /SKIP
กดปุ่ม ESC เพื่อยกเลิก หรือข้ามเมนู

E1T CONTROL UNIT SEQUENCER 4÷16 OUTPUT CHANNELS

DESCRIPTION

Sequencer for controlling the pneumatic cleaning of industrial dust collector systems. It has 2 output relay contacts and 2 digital input contacts. 3-digit luminous LED display, which allows to read the unit operating status, the active solenoid valves and any alarms, at all times.

OPTIONS UPON REQUEST

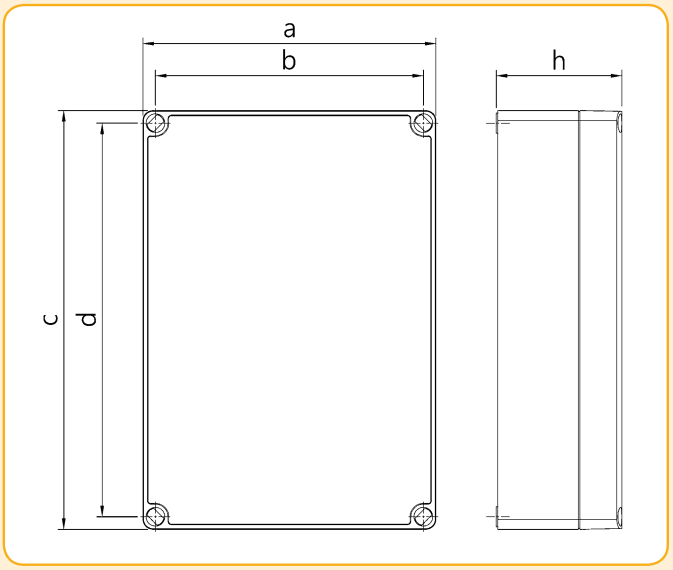
- Activation of 2 solenoid valves for every output channel.
- Cable glands for power supply input and output of solenoid valves drive cables.
- Connector from wired panel for connection to Matrix cabling.
- Built-in pilots for remote control of the pneumatic valves.
- Casing container with different format.
- Zone 22 ATEX Certification.

REFERENCE STANDARDS

- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**

TECHNICAL SPECIFICATIONS	
Power supply voltage	115 Vac 50-60 Hz ± 10 % 230 Vac 50-60 Hz ± 10 %
Power supply voltage upon request	24 Vac ± 10 % 24 Vdc ± 10 %
Output voltage for solenoid valves	115 Vac 50-60 Hz 230 Vac 50-60 Hz 24 Vac 24 Vdc
Inputs	Remote enabling consent switch. Post-cleaning cycles fan switch.
Solenoid valves output channels	4 ÷ 16
Electric consumption	28 Watts at maximum load
Alarm Relays	2 normally closed Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac.
Screen	3 x 0.8 inch digit 7-segment LED display
5 x 20 mm glass fuse	115 or 230 Vac 1 x 1 A 24 Vac or 24 Vdc 1 x 3 A
Operating temperature	-10 °C - 55 °C
Storage temperature	-20 °C - 60 °C
Environmental humidity	0 ÷ 95% Relative non condensing
Valves opening impulse time	50 m.sec. ÷ 5 sec.
Interval pause time between valves opening	1 sec. ÷ 999 sec.
Casing	Base in ABS Lid in Polycarbonate
Protection rating from water and dust	IP65 DIN EN 60529
Shock resistance	IK07 2 Joule (EN62262)



Number of output channels	Dimension of the Structure				
	a	b	c	d	h
4 ÷ 8	175	160	175	160	75
12 ÷ 16	175	160	250	235	75

E2T CONTROL UNIT ECONOMISER 4÷16 OUTPUT CHANNELS

DESCRIPTION

Economiser for controlling the pneumatic cleaning of industrial dust collector systems. It has 2 output relay contacts and 2 digital input contacts. Differential pressure digital control through internal transducer, which allows the accurate analysis of the filter clogging status. 3-digit luminous LED display, which allows to read the filter clogging status, the active solenoid valves and any alarms, at all times.

OPTIONS UPON REQUEST

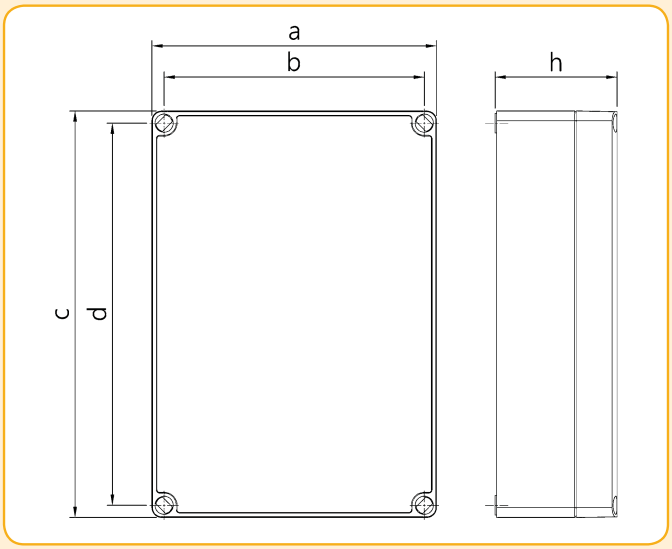
- Activation of 2 solenoid valves for every output channel.
- Cable glands for power supply input and output of solenoid valves drive cables.
- Connector from wired panel for connection to Matrix cabling.
- Built-in pilots for remote control of the pneumatic valves.
- Casing container with different format.
- Zone 22 ATEX Certification.

REFERENCE STANDARDS

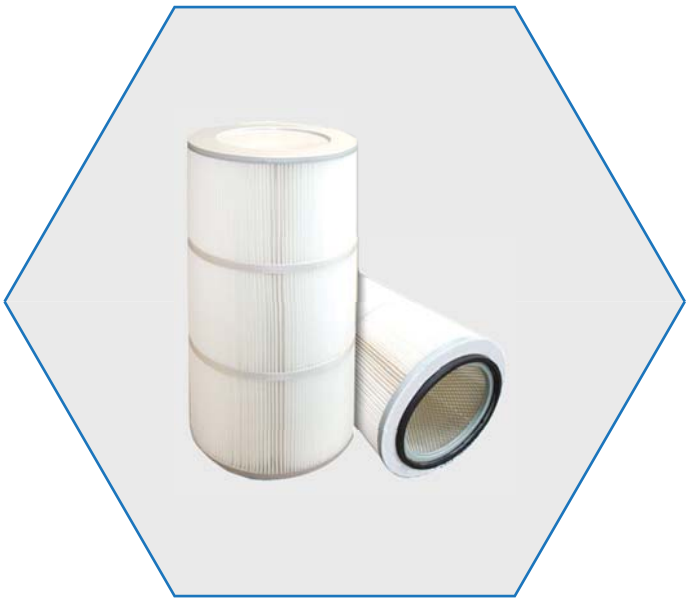
- Directive 2014/30/EC Electromagnetic Compatibility meeting European harmonised standards EN61000-6-2:2005 class B in standard EN61000-6-4:2001
- Directive 2014/35/EU Low Voltage meeting European harmonised standards EN 60947-1:2004

For additional information and technical specifications, consult **www.turbocontrols.eu**

TECHNICAL SPECIFICATIONS	
Power supply voltage	115 Vac 50-60 Hz ± 10 % 230 Vac 50-60 Hz ± 10 %
Power supply voltage upon request	24 Vac ± 10 % 24 Vdc ± 10 %
Output voltage for solenoid valves	115 Vac 50-60 Hz 230 Vac 50-60 Hz 24 Vac 24 Vdc
Inputs	Remote enabling consent switch. Post-cleaning cycles fan switch.
Solenoid valves output channels	4 ÷ 16
Active output 4-20ma	Proportional to the dP reading for remote consultation of the pressure.
Electric consumption	28 Watts at maximum load
Alarm Relays	2 normally closed Maximum load: 3A @ 250Vac, 2A @ 24Vdc, 24 Vac.
Differential pressure switch	0 - 4 kPa
Screen	3 x 0.8 inch digit 7-segment LED display
5 x 20 mm glass fuse	115 or 230 Vac 1 x 1 A 24 Vac or 24 Vdc 1 x 3 A
Operating temperature	-10 °C - 55 °C
Storage temperature	-20 °C - 60 °C
Environmental humidity	0 ÷ 95% Relative non condensing
Valves opening impulse time	50 m.sec. ÷ 5 sec.
Interval pause time between valves opening	1 sec. ÷ 999 sec.
Casing	Base in ABS Lid in Polycarbonate
Protection rating from water and dust	IP65 DIN EN 60529
Shock resistance	IK07 2 Joule (EN62262)



Number of output channels	Dimension of the Structure				
	a	b	c	d	h
4 ÷ 8	175	160	175	160	75
12 ÷ 16	175	160	250	235	75



Cartridge Filter

Suitable for the filtration of fine dusts

Spun bonded Polyester Air Cartridge Filter (PE Media)

Product Features

1) Suitable for the filtration of fine dust type in plastics, spray powder, sand blasting, pigment and wood industries.
2) Imported long fiber polyester filter material with tight pore structure.
3) Excellent moisture resistance and dust release properties.
4) Durable and rigid material, washable Greater withstanding performance to pulse jet than traditional materials.
5) Electrochemical plate top and bottom, no rust Perforated zinc galvanized metal inner core allows good airflow.
6) Specialty chlorine rubber gasket to ensure airtight sealing.
7) Applicable temperature : 93 -135oC.
8) Out side strabe anti cartridge not deform.
9) Anti-Static for explosive dust to the electrical load.
10) Excellent filter efficiency 99.99 % at 5 micron.
95 % at 1 micron.

PEC-10 OD = 324 mm ID = 213 mm L = 660 mm
Filtration surface(m2) = 9.4 m2

คุณสมบัติ

1) เหมาะสำหรับการกรองฝุ่นที่ละเอียด เช่น พลาสติก ผงแป้ง ฝุ่นละออง ที่เกิดจากการพ่นทราย ห้องพ่นสี อบเคมี และอุตสาหกรรมไม้
2) วัสดุนำเข้าทำจากไฟเบอร์เป็นฟิลเตอร์กรองฝุ่นชนิดที่มีความเหนียวทนทานเป็นพิเศษ และมีโครงสร้างที่แข็งแรง
3) ทนทานต่อความชื้น และทำความสะอาดง่าย
4) วัสดุทนต่อแรงลมกระแทกขณะทำความสะอาดถุงกรอง
5) โครงสร้างยึดแผ่นกรองด้านบน-ด้านล่างเป็นเหล็กขาวและไม่ขึ้นสนิม โครงยึดด้านในเป็นตะแกรงเหล็กหุ้มสังกะสีเพื่อเสริมความแข็งแรงและสะดวกต่อการไหลผ่านของอากาศ
6) ประเก็นป้องกันการรั่วซึมของอากาศทำจากยางชนิดพิเศษ
7) ทนความร้อนได้ที่อุณหภูมิ 93 – 135 o C
8) ปลวกรัดจีบด้านนอก 2-3 ระดับป้องกันจีบล้ม และเสียรูป

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Spun bonded Polyester Air Cartridge Filter with PTFE Coating

Product Features

1) Suitable for the filtration of very, very fine dust type in welding fumes, mechanical processing, pharmaceutical and construction industries And sticky dust collection. Organie, antitistatic material, high moiseture.
2) Imported spun bonded polyester with PTFE membrane, microporou Offers 99.99 +% filter efficiency. At 0.1 micron.
3) Wide pleat spacing and smooth, hydrophobic PTFE provides excellent partical release.
4) Excellent resistance to chemical erosion.
5) Electrochemical plate / stainless steel top and bottom, no rust Perforated zinc galvanized metal inner core allows good airflow.
6) Applicable temperature : 93 -135oC.
7) Out side strabe anti cartridge not deform.

คุณสมบัติ

1) เหมาะสำหรับการกรองฝุ่นที่ละเอียดมาก ๆ เช่น ฝุ่นควันจากการเชื่อม การใช้เครื่องจักรในโรงงานอุตสาหกรรม และฝุ่นที่มีความชื้นสูง เช่น ละออง น้ำ ละอองน้ำมันที่มีความเหนียวอยู่ในตัว เคมีที่กัดกร่อน และฝุ่นที่มีไฟฟ้าสถิตในตัว
2) วัสดุนำเข้าทำด้วยโพลีเอสเตอร์ ชนิดPTFE ชนิดพิเศษมีความสามารถในการกรองฝุ่นได้สูงสุด 99.99 % ที่ขนาดของฝุ่น 0.1 ไมครอน
3) มีพื้นที่ในการกรองมากและเรียบ ซึ่งวัสดุเป็นชนิด ไฮโดรโฟบิค (PTFE) ซึ่งสะดวกต่อการทำความสะอาดชิ้นส่วนจากการกรอง
4) ฟิลเตอร์เคลือบสารป้องกันจากการกัดกร่อนจากสารเคมี
5) โครงสร้างยึดแผ่นกรองด้านบน – ด้านล่างเป็นเหล็กขาวไม่ขึ้นสนิมโครงยึดด้านในเป็นตะแกรงสังกะสีสะดวกต่อการไหล่ผ่านของอากาศ
6) ทนความร้อนได้ที่อุณหภูมิ 93 -135oC.
7) ปลอกรัดจีบด้านนอก 2-3 ระดับป้องกันจีบล้ม และเสียรูป

PPK-10 OD = 324 mm ID = 213 mm L = 660 mm
Filtration surface(m2) = 9.4 m2

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Cellulose Air Cartridge Filter

Product Features

Suitable for the filtration of fine dust type in gas turbines, compressors, shot blast, tobacco, pulverized coal ash and floating dust collection.

1) Imported cellulose fiber or synthetic fiber for base media.
2) Excellent filter efficiency 99.99 % at 0.1 micron.
3) Wide pleat spacing, great filter surface (20m2 / set).
4) Electrochemical plate top and bottom, no rust.
5) Perforated zinc galvanized metal inner core, allows good airflow.
6) Specialty chlorine rubber gasket to ensure airtight sealing.
7) Applicable temperature : 65oC.
8) Iner and outer screen anti cartridge not deform.

CEC-20 OD = 324 mm ID = 213 mm L = 660 mm
Filtration surface(m2) = 20 m2

คุณสมบัติ

เหมาะสำหรับฝุ่นละเอียดที่ใช้กับแก๊ซเทอร์ไบน์ คอมเพรสเซอร์ ควันจากการหลอม ควันบุหรี่ ควันจากถ่านหิน และฝุ่นละอองที่ลอยในอากาศ

1) วัสดุเป็นชนิดเซลลูโลสไฟเบอร์ หรือเคมีไฟเบอร์
2) มีคุณสมบัติในการกรองเป็นอย่างดีที่ 99.99 % ที่ 0.1 ไมครอน
3) มีพื้นที่ในการกรองมาก สวยเรียบ
4) แผ่นยึดด้านบน – ด้านล่าง เคลือบเคมีชนิดกันสนิม
5) โครงตะแกรงด้านในเป็นเหล็กชุบสังกะสีไม่ขึ้นสนิม และอากาศไหลผ่านได้ดี
6) มีประเก็นป้องกันการซึมรั่วของอากาศทำจากยางชนิดพิเศษ
7) ทนอุณหภูมิได้ที่ 65°C
8) ด้านนอกและด้านในเป็นโครงตะแกรงป้องกันจีบล้มและเสียรูป

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differential pressure gauge

&

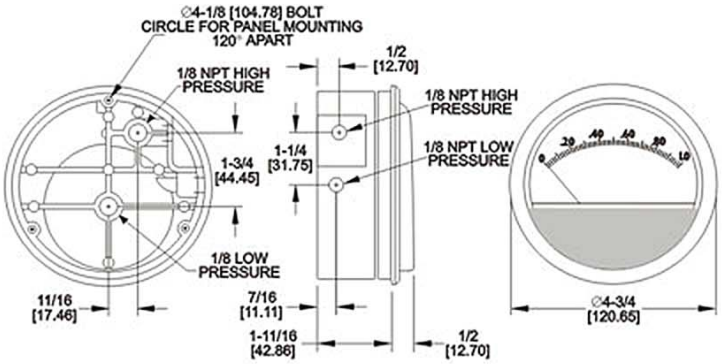
Digital differential pressure gauge

J-5000 型氣體微差壓表

J-5000 AERO TYPE DIFFERENTIAL PRESSURE GAUGES

中、美、日、韓、加、台六國專利

WORLD PATENT of 6 COUNTRIES
CHINA、AMERICA、JAPAN、KOREA、CANADA、TAIWAN



J-5000型機械式微差壓表是利用簡單,無摩擦的磁體螺旋運動,以橡膠膜片作為敏感元件而進行測量工作的彈性壓力錶. 它能利用指標迅速指示出被測氣體的壓力,無論是正壓,負壓或差壓. 此設計具有防震,搖動和過壓的功能. 而且表內無需充注液體,也就沒有氣化,凍結,異味的問題出現.

J-5000 type Differential Pressure Gauge make used of simplicity; have no friction of the magnetic element of spiral movement, with rubber film slice as the sensitive component in measuring flexibility pressure. It can make use of index sign to indicate the measuring of gaseous pressure quickly, no matter of positive, negative or differential pressure. This design has quakeproof, shaking and over pressure function. Nevertheless, there's no need to have liquid filling inside, therefore, no gaseous, freezing, and strange smell will appears in this matter.

J-5000型差壓錶被廣泛應用於測量風扇和鼓風機的壓力,篩檢程式阻力,風速,爐壓,孔板差壓,同時也用於燃燒過程中的空氣煤氣比值控制及自動閥控制,以及醫療保健設備中的血壓和呼吸壓力監測.

J-5000 type's differential pressure gauges is extensively been applied in pressure of measuring the fan and drum breeze machine, screening out the program resistance, wind velocity, the stove presses, hole plank differential gauge, also be used for burnable the air coal gas specific value within process control and the automatic valve control, and the medical treatment care for the blood pressure equipment and to monitor the breathe pressure.

過程連接: 高壓和低壓孔均為1/8" 錐管螺紋，兩組(側面和背面各一組)
Process conjunction: high pressure and low-pressure hole of 1/8" drill tube thread, 2 set(side and back each)

標準附件: 2個1/8" NPT堵頭，2個1/8" 螺紋橡膠管接頭，和3個帶螺釘的崁入式安裝螺釘卡.
Standard fitting: 2 pcs 1/8" NPT head, 2 pcs 1/8" spiral plastic tube; & 3 pcs with bolt for bolt card installation.

外殼材質: 壓模鑄鋁或含尼龍的ABS塑膠.
Casing Material: cast aluminum press or Nylon with ABS plastic

精確度: 標準為±2%FS
Accuracy: Standard ±2%FS

環境溫度: -7 ~ 60℃
Environmental temperature: -7 ~ 60℃

ELECALL MANOMETER TE2000

0-250 mmH2O

PRODUCT INFORMATION

Specifications Model	TE2000 Gauge
Ambient Temperature	-6~60℃
Rated Pressure	-68~103KPa
Shell Material	Aluminum Film

TECHNICAL PARAMETERS

Overload Pressure	About 172KPa overvoltage when the rubber stopper has been rushed to open
Process Connection	1/8 "female NPT high and low pressure taps, duplicated, one pair side and one pair back Shell Material: Aluminum External, final coating film dark black
Shell Material	Aluminum External,final coating film dark black
Accuracy	± 2% FS (21 ° C)
Standard Accessories	Two 1/8 "NPT plugs for duplicate pressure nozzles, two 1/8" pipe thread for rubber fittings. Three bolts with countersunk mounting interface.

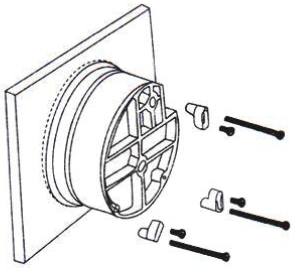
PRODUCT FEATURES

- Eliminating the friction caused by the rotation of the gear
- Change the conventional liquid without filling

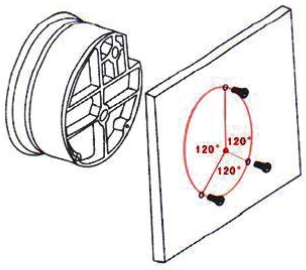
- Industrial grade quality professional work

INSTALLATION METHOD

Embedded installation



Surface mount

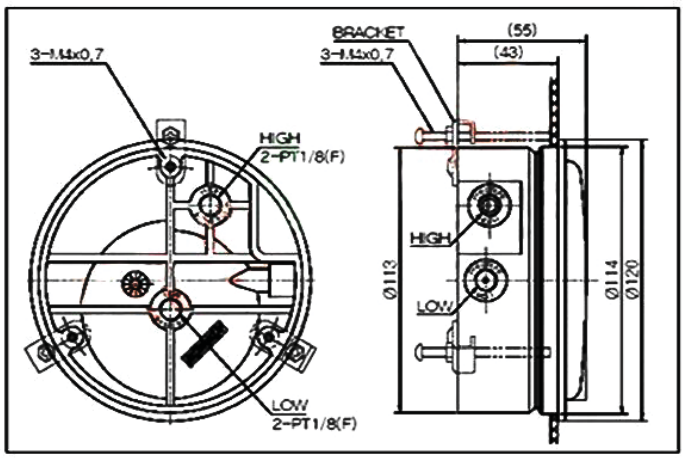


INSTALLATION ACCESSORIES

- 2 Pcs1/8 internal room temperature and atmospheric pressure high-low pressure copper Taper pipe threads
- 2 Pcs1/8 internal high-low pressure taper pipe plug head.
- The embedded installation adapter and screw

PRODUCT SIZE

Unit:mm



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