

Installation Guide for the MCDV Drains



Connection Size	Voltage	Max. Pressure	Drain Only	Drain with Heavy Duty Brass Strainer	Drain with Compact Chrome Strainer	Drain with Self Cleaning Strainer Drain Kit
1/4" FPT	115V	230 PSI	MCDV25	MCDV25-S	MCDV25-CS	MCDV25-DK
1/4" FPT	230V	230 PSI	MCDV25-230V	MCDV25-S230V	MCDV25-CS230V	—
3/8" FPT	115V	230 PSI	MCDV38	MCDV38-S	MCDV38-CS	MCDV38-DK
3/8" FPT	230V	230 PSI	MCDV38-230V	—	—	—
1/2" FPT	115V	230 PSI	MCDV50	MCDV50-S	MCDV50-CS	MCDV50-DK
1/2" FPT	230V	230 PSI	MCDV50-230V	—	—	—



WARNING: Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Intended Use

The function of this electric drain is to remove condensation from tank reservoirs of air compressors, air dryers, condensate separators, and air filters.

Important Safety Information

- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this product. Always be aware of the environment and ensure that the product is used in a safe and responsible manner.
- Do not allow persons to operate or assemble the drain until they have read this manual and developed a thorough understanding of how it works.
- Do not modify this drain in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the product.
- There are certain applications for which this drain was designed. DO NOT use this equipment for a purpose for which it was not intended.
- Industrial or commercial applications must follow OSHA requirements

Technical Specifications:

Timer	Valve
Interval Time: 0.5 - 45 Minutes	Type: 2-Way Direct Acting Valve
Discharge Time: 0.5 - 10 Seconds	Operating Temperature: 34 °F to 140 °F
Supply Voltage: 115V (+/- 10%) and 230V (+/-10%)	Valve Body: Machined Brass Bar
Current Consumption: 4mA Max.	Maximum Working Pressure: 230 PSI
Environmental Protection: NEMA 4	4.5 mm Orifice
Case Material: ABS Plastic FR Grade	Insulation: Thermal Group H
Connection: DIN 43650A ISO4400/6952	Environmental Protection: IP 65/NEMA 4
Operating Temperature: 34 °F to 140 °F	Mounting: Any Position

Save These Instructions

Personal Safety Information

- Do not use the condensate timer drain where there is a risk of causing a fire or an explosion; e.g., in the presence of flammable liquids, gases, or dust. The drain can create sparks, which may ignite flammable liquids, gases, or dust.
- Keep children and bystanders away from the work area while operating the drain. Do not allow children to handle the condensate timer drain.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be hidden from your view and may cause personal injury and/or property damage if contacted.
- Stay alert, watch what you are doing, and use common sense when operating the drain. Do not use the drain while you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the tool may result in serious personal injury.
- Dress properly. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts. Air vents on the tool often cover moving parts and should be avoided.
- Wear the proper personal protective equipment when necessary. Use ANSI Z87.1 compliant safety goggles (not safety glasses) with side shields, or when needed, a face shield. Use a dust mask in dusty work conditions. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate. This applies to all persons in the work area.
- Do not overreach. Keep proper footing and balance at all times.

Electrical Safety Information

- Grounded tools must be plugged into an outlet, properly installed, and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in anyway. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the condensate timer drain should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- Do not abuse the power cord. Never use the power cord to carry the drain or pull the plug from an outlet. Keep the power cord away from heat, oil, sharp edges, or moving parts. Replace damaged power cords immediately. Damaged power cords increase the risk of electric shock.
- USE A PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your drain will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and cause overheating.

Setting the Timer



- Set the discharge timer from the left dial. The left dial determines the length of time the drain will stay open to drain the condensate (.05 to 10 seconds)
- Set the interval timer using the right dial. The interval timer determines the amount of time between cycles (.05 to 45 minutes)



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and reproductive harm. For more information go to www.P65Warnings.CA.gov

Installation the MCDV Condensate Drains



Caution:

- When Installing the electronic drain valve, make sure power is turned off and air system is drained to zero pressure
- Test drain every time the compressed air system is checked
- If tubing is used to drain condensate, secure tubing to prevent “whipping” when valve is actuated

Installation:

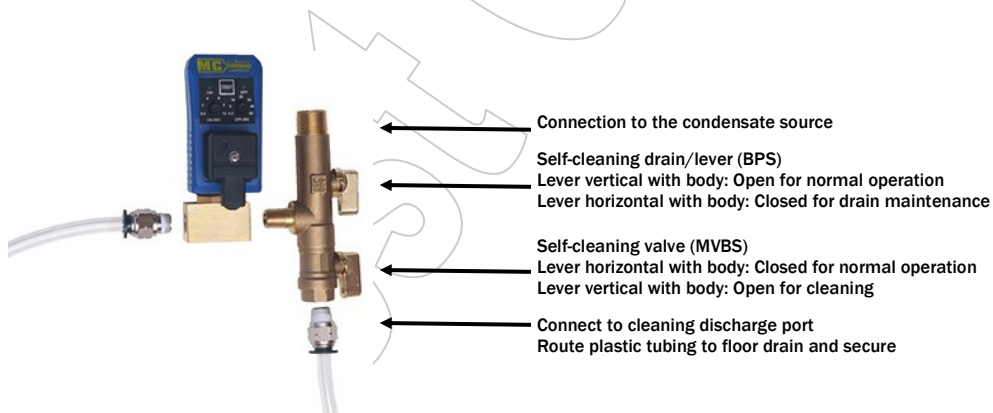
- Verify direction of flow (stamped on valve body)
- Valve can be mounted in any position
- A strainer should be installed on the inlet side of the condensate drain, to prevent debris from clogging the drain valve
- The MCDV drains with BPS or VS suffix include a strainer (see photo on page 1)
- Check local codes before draining condensate into the floor drain. It may be necessary to install an oil/water separator.

Assembly Instructions for the MCDV-ADK Condensate Drain with Self Cleaning Valve

- Disassemble the BPS combination ball valve strainer from the MVBS self-cleaning valve
- Connect the BPS strainer to the inlet side of the drain (see the directional arrow on the brass body)
- Insert the strainer screen
- Connect the MVBS self-cleaning valve to the BPS combination ball valve strainer
- Included are two sets of plastic tubing with push-on fittings. Install one to the bottom of the BABC self-cleaning drain valve and the other to the drain discharge port. Secure plastic tubing to prevent “whipping” when valve is actuated.
- The use of Teflon® tape or equivalent is required on all threads and included in the kit.

Operation for Cleaning:

- Under normal operation, the lever for BPS portion must be in the open position and lever on MVBS portion must be in the closed position
- To run a cleaning cycle, open the lever on the MVBS. Before returning to normal operation, move the levers to their original positions. Do not leave the drain unattended while cleaning.



Maintenance

Maintain the Condensate Timer Drain by adopting a program of conscientious repair and maintenance in accordance with the following recommended procedures. It is recommended that the general condition of any drain be examined before it is used. Keep your drain in good repair. The following chart is based on a normal operation schedule.

Maintenance Interval

Weekly
Monthly/Yearly
Monthly/Yearly

Maintenance Point

Open the self-cleaning valve and discharge the debris, if any.
Test drain by pressing TEST Switch on timer whenever checking compressed air system.
Inspect the strainer screen and clean or replace if necessary.

Troubleshooting

Use the table below to troubleshoot problems before contacting service personnel or your local dealer.

Failure	Possible Cause	Corrective Action
Drain is not opening or closing properly	Debris is caught in the screen/drain valve	Clean screen and remove debris from drain valve

Limited Warranty

Midwest Control ("we" or "us") warrants to the purchaser only ("you" or "your") that the MCDV Drain Valve product purchased will be free from material defects in both materials and workmanship, normal wear and tear expected, for a period of **two years** from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions including the use of a strainer. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty, your sole and exclusive remedy is that we will, at our sole option and within a commercially reasonable time, either replace the product or product component without charge to you or refund the purchase price (less shipping). This limited warranty is not transferable.

This limited warranty does not cover: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) product alteration in any manner by anyone other than us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner. You must retain your product purchase receipt to verify date of purchase and that you are the purchaser. To make a warranty claim, contact us at 1-800-304-5599, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to us in order to process your warranty claim. Any returned product that is replaced or refunded by us becomes our property. You will be responsible for return shipping costs or costs related to your return visit to a retailer.

Product replacement or a refund of the purchase price is your sole remedy under this limited warranty or any other warranty related to the product. We shall not be liable for: service or labor charges or damage to your property incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to your improper use, installation, or maintenance of the product or product component; or any indirect, incidental or consequential damages of any kind for any reason.



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MCDV Condensate Drains



MCDV Drain



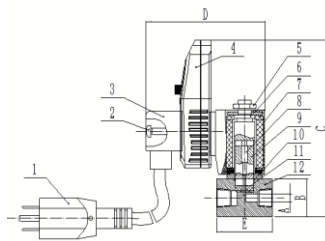
MCDV Drain w/Brass Strainer



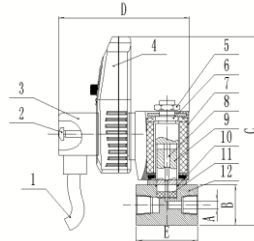
MCDV Drain w/Chrome Strainer



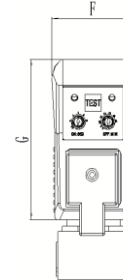
MCDV-DK Drain w/Self Cleaning Valve



115V Cord and Plug



230V Cord Only



MCDV
Drain

MCDV Drain
w/Brass
Strainer

MCDV Drain
w/Chrome
Strainer

MCDV-DK Drain
w/Self
Cleaning Valve

115V

Part No.	Part No.	Part No.	Part No.	Size	A (In)	B (In)	C (In)	D (In)	E (In)	F (In)	G (In)
MCDV25	MCDV25-S	MCDV25-CS	MCDV25-DK	1/4"	0.24	0.98	4.58	3.46	1.62	1.83	3.34
MCDV38	MCDV38-S	MCDV38-CS	MCDV38-DK	3/8"	0.24	0.98	4.58	3.46	1.81	1.83	3.34
MCDV50	MCDV50-S	MCDV50-CS	MCDV50-DK	1/2"	0.24	0.98	4.58	3.46	1.81	1.83	3.34

230V

Part No.	Part No.	Part No.		Size	A (In)	B (In)	C (In)	D (In)	E (In)	F (In)	G (In)
MCDV25-230V	MCDV25-S230V	MCDV25-CS230V		1/4"	0.24	0.98	4.58	3.46	1.62	1.83	3.34
MCDV38-230V	MCDV38-S230V	MCDV38-CS230V		3/8"	0.24	0.98	4.58	3.46	1.81	1.83	3.34
MCDV50-230V	MCDV50-S230V	MCDV50-CS230V		1/2"	0.24	0.98	4.58	3.46	1.81	1.83	3.34

UL and CE Approved
Max Working Pressure: 230 PSI
Solid State Timer
On-Off Lights
Manual Test Button
BPS Brass Strainer (MCDV-S & MCDV-S230V)
BPSC Chrome Strainer (MCDV-CS & MCDV-CS230V)
Self Cleaning Valve & Push to Connect Fittings (MCDV-DK)
6 Ft. Power Cord 115V
6 Ft. Power Cord (No Plug) 230V

Timer Specifications

Interval Time: 0.5 - 45 Minutes
Discharge Time: 0.5 - 10 Seconds
Supply Voltage: 115V (+/- 10%)
Supply Voltage: 230V (+/- 10%)
Current Consumption: 4mA Max.
Environmental Protection: NEMA 4
Case Material: ABS Plastic FR Grade
Connection: DIN 43650A ISO4400/6952
Operating Temperature: 34°F to 140°F

Valve Specifications

Type: 2-Way Direct Acting Valve
Operating Temperature: 34°F to 140°F
Valve Body: Machined Brass Bar
Max Working Pressure: Orifice: 230 PSI
4.5mm Orifice
Insulation: Thermal Group H
Environmental Protection: IP 65/NEMA 4
Mounting: Any Position

Part No.	Description	Material
1	Wire	Brass & PU
2	Bolt	Steel
3	Connector	PC
4	Timer	PC
5	Nut	Steel
6	Washer	Steel
7	Coil	PC & Brass
8	Spring	Steel
9	Plunger	Steel
10	O-ring	PTFE
11	Seal	NBR
12	Body	Brass



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