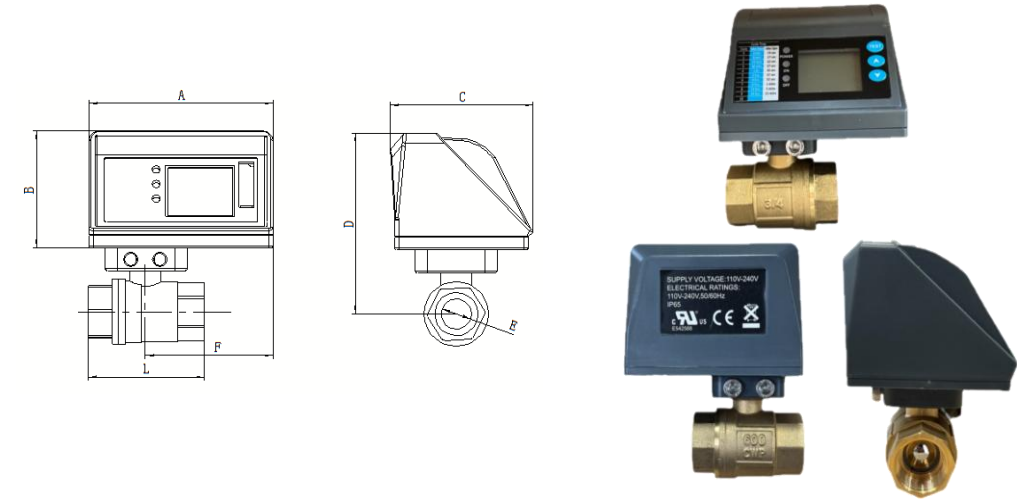


MD Series Motorized Ball Valve Drain



Designed to be used as a condensate drain in compressed air systems or in any application where opening and closing a ball valve automatically is desired.

- Construction: Housing: ABS Fire Resistant
- Rated up to 600 psi with a forged brass valve
- Features Microprocessor Technology, 10 Channel Pre-Programmable Cycles
- Non-clogging
- Adjustable Interval Time: 1 Second 999 Hours Programmable
- Adjustable Discharge Time: 1 Second to 999 Hours Programmable
- Manual Test Switch
- Operating Temperature: 34 F to 131 F
- IP65 NEMA 4 Rated
- (Opening the housing breaks the IP65 seal and voids the warranty)**
- Red LED Light: Indicates Power is Present
- Green LED Light: Indicates Valve is Open
- Yellow LED Light: Indicates Valve is Closed
- Can Be Mounted in Any Position
- Includes 6 Ft Power Cord (Rated for Both 115V and 230V)
- Power Failure Protection: Will Closed Valve When Power Interrupted
- Inlet and Outlet Connection: FNPT
- 1 Year Manufacturer's Warranty
- Installation Manual Included**

Part No.	Size	A (In)	B (In)	C (In)	D (In)	E (In)	F (In)	L (In)	Carton Qty.	Wt. (lbs)
MD-25BV	1/4"	3.54	2.54	3.32	3.22	0.31	2.48	1.71	12	1.20
MD-38BV	3/8"	3.54	2.54	3.32	3.22	0.39	2.48	1.73	12	1.40
MD-50BV	1/2"	3.54	2.54	3.32	3.76	0.59	2.48	2.24	12	1.50
MD-75BV	3/4"	3.54	2.54	3.32	3.92	0.75	2.48	2.36	12	1.70
MD-100BV	1"	3.54	2.54	3.32	4.11	0.98	2.48	3.23	12	2.20

Weights Are ± 3%

Drawing Date:05/2024
Rev Level 1 -Date: 8/4/2025

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

Installation Guide for the MD Series Motorized Ball Valve Drain



Connection Size	Voltage	Max. Pressure	Model No.
1/2" FPT	115V, 230V	600 PSI	MD-50BV
3/4" FPT	115V, 230V	600 PSI	MD-75BV
1" FPT	115V, 230V	600 PSI	MD-100BV



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

Designed to be used as a condensate drain in compressed air system or in any application where opening and closing a ball valve automatically is desired.

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:

Maximum Working Pressure: 600 PSI	UL Approved
Operating Temperature: 34°F to 131°F	6ft Cord and Plug 115V, Cord Only 230V
Supply Voltage: 115V, 230V, 50/60 Hz 1Ph.	Current Consumption: 127mA Max
Standard Pre-Set Program (Code 0-9) See page for 3 for program details	Type: 2-Way Brass Motorized Ball Valve
	Orifice: 15mm, 19mm, 25mm
Customized Program (Code 10) Closed: 1 second - 999 Hours Open (Discharge Time): 1 seconds - 999 Hours	Red Light - Indicates power is present, and will remain lit when working normally, flashes when a fault has occurred
Environmental Protection: IP 65/NEMA 4	Green Light - The green light flashes during the valve opening process. The green light will change from flashing to solid when the valve is open
Case Material: ABS Plastic FR Grade	
Mounting Position: Any	Yellow Light - The yellow light will flash when the valve begins to close. After the valve has closed the light will change from flashing to solid
Condensate Connection: Either side of the valve can be use as the inlet connection	

Save These Instructions

Personal Safety Information

- Do not use the motorized drain valve 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.

MD Series Motorized Ball Valve Drain Features

The MD Series motorized ball valve employs SMD technology which provides the following features

- Valve opening and valve closing pre-programmed (Codes 0-9) see page 3 for details
- Customize valve opening and closing (Code 10) see page 3 for details
- Capable of operating on either 115V or 230V single phase (cord is rated for 115V and 230V) When operating on 230V remove plug.
- Capacitor, which will keep the drain in a closed setting should power failure occur
- Both sides of the drain valve can be used as the inlet port

The drain valve is equipped with 3 LED lights

Red Light

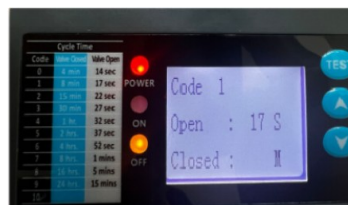
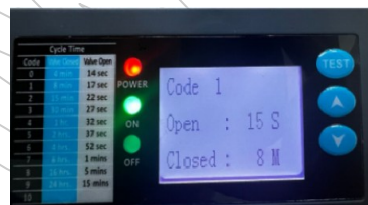
Indicates power is present, and will remain lit when working normally, flashes when a fault has occurred

Green Light

The green light flashes during the valve opening process. The green light will change from flashing to solid when the valve is open.

Yellow Light

The yellow light will flash when the valve begins to close. After the valve has closed the light will change from flashing to solid.



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

Setting Up and Installing the MD Series Motorized Ball Valve Drain

Depressurize the system before installing the motorized drain valve.

The motorized drain is set at program 10, allowing you to select your own timer settings based on your condensation requirements, or in few quick steps set up the motorized drain with a standard program.

If selecting a pre-set program (see codes below) **hold the test button for 5 seconds** until the program code is displayed. Use the up or down arrow to located the desired program.

After selecting a pre-program code, the screen will display the

- Code number (program setting see table below)
- Open: The amount of time the drain will discharge condensation (including the 7 seconds required to open the drain)
- Closed: The time remaining before the drain discharges condensation

Pre Programmed Settings

Code	Valve Closed	Valve Open	Code	Valve Closed	Valve Open
0	4m	14s	6	4hrs	52s
1	8m	17s	7	8hrs	1m
2	15m	22s	8	16hrs	5m
3	30m	27s	9	24hrs	15m
4	1h	32s	10	Custom*	
5	2hrs	37s			

*To customize your setting, select program code 10 hold the test button for 1 second until the program screen is displayed. Use the **test button** to toggle thru each field. To change the data in the field, use the up and down arrow to make your selections

Field 1 Open	Use the up and down arrows to select the amount of time the drain will open (discharge condensation) including the 7 seconds required to open the drain	→	Touch the Test button to move to the UNIT field
Field 2 Unit	Use the up and down arrows to select S (seconds) M (minutes) H (Hours)	→	Touch the Test button to move to the CLOSED field
Field 3 Closed	Use the up and down arrows to select the time Drain remains in the close position	→	Touch the Test button to move to the UNIT field
Field 4 Unit	Use the up and down arrows to select S (seconds) M (minutes) H (Hours)	→	After the selection is complete the screen will return to the display screen



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 MD Series Motorized Ball Valve Drain



Caution:

- When Installing the motorized 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:

- Valve can be mounted in any position.
- Check local codes before draining condensate into the floor drain. It may be necessary to install an oil/water separator before draining condensate into the floor drain.

Maintenance

Maintain the motorize 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

Monthly/Yearly

Maintenance Point

Test drain by pressing TEST button on timer whenever checking compressed air system.

Troubleshooting

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

Failure	Possible Cause	Corrective Action
Drain will not cycling	Power connection Timer is not set properly	Confirm power source is operating Push test button, reset timer
Ball valve leaks	Debris may have damaged ball valve seat	Push test button to flush valve Replace ball valve if necessary
Drain cycles but does not discharge water or air	No pressure upstream Line or ball valve may be clogged with debris	Check compressor system for pressure Disconnect power. Depressurize compressor system Remove drain and check for blockage
Drain valve discharges primarily air at each cycle	Timer set improperly	Reset timer to longer intervals
Drain valve discharge primarily liquid at each cycle	Timer set improperly	Reset timer to shorter intervals

Limited Warranty

Midwest Control (“we” or “us”) warrants to the purchaser only (“you” or “your”) that the MD Series Drain Valve product purchased will be free from material defects in both materials and workmanship, normal wear and tear expected, for a period of **one year** 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. 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 workman like 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.