

# Electronic Drain Valve 790

## Installation & Maintenance Instructions for the Electronic Drain Valve

The timer controlled drain valve is designed to automatically remove condensate from compressed air systems such as air compressors, compressed air dryers and air receiver applications up to 16 bar.

The condensate can be drained in any interval in between the adjustable time cycles of 0.5 to 99 mins. The draining time can be set between 0.1 to 99 seconds.

### Features:

- Does not air-lock during operation
- Microswitch "Test" feature to operational readiness
- UL certified timer
- RoHS3 compliant

### Technical Specification

Timer	
Model	XY-790H
Interval Time OFF state	0.5 - 99 minutes
Discharge Time ON state	0.1 - 99 seconds
Test switch	Digital
Supply Voltage	110~220V AC/DC ±10%
Power	AC/DC 50Hz/60Hz
Current Consumption	Max. 10mA
Operating Temperature	-20°C to +60°C
Environmental protection	IP65 EN60529 NEMA 4
Case Material	ABS plastic FR grade
Connection	DIN 43650A ISO 4400/695
Output	MOS
LED Indicators	On = valve open; Flashing = changing settings
Mounting	Upright

Timer	
Model	XY-790L
Interval Time OFF state	0.5 - 99 minutes
Discharge Time ON state	0.1 - 99 seconds
Test switch	Digital
Supply Voltage	7~36V AC/DC ±10%
Power	AC/DC 50Hz/60Hz
Current Consumption	Max. 20mA
Operating Temperature	-20°C to +60°C
Environmental protection	IP65 EN60529 NEMA 4
Case Material	ABS plastic FR grade
Connection	DIN 43650A ISO 4400/695
Output	Relay
LED Indicators	On = valve open; Flashing = changing settings
Mounting	Upright

Valve	
Model	CS-720W
Type	2/2 way direct acting valve
In/Out Ports	G1/8", G1/4", G3/8", G1/2" ISO 228
Max. Working Pressure	16 bar
Operating Temperature	-20°C to +120°C
Media Temperature	Up to +160°C
Valve Body	Brass HPb59
Environmental Protection	IP65 EN60529 NEMA 4
Seal Material	NBR / Viton
Supply voltage*	24~220V ±10%
Supply power	AC/DC 50Hz/60Hz
Mounting	Any position

\*See coil for the correct supply voltage

Part No	Inlet Port Size	Outlet Port Size	Voltage	Timer
790-01AC220	G1/8"	G1/2"	220V AC	XY-790H
790-02AC220	G1/4"	G1/2"	220V AC	XY-790H
790-03AC220	G3/8"	G1/2"	220V AC	XY-790H
790-04AC220	G1/2"	G1/2"	220V AC	XY-790H
790-01AC110	G1/8"	G1/2"	110V AC	XY-790H
790-02AC110	G1/4"	G1/2"	110V AC	XY-790H
790-03AC110	G3/8"	G1/2"	110V AC	XY-790H
790-04AC110	G1/2"	G1/2"	110V AC	XY-790H
790-01DC24	G1/8"	G1/2"	24V DC	XY-790L
790-02DC24	G1/4"	G1/2"	24V DC	XY-790L
790-03DC24	G3/8"	G1/2"	24V DC	XY-790L
790-04DC24	G1/2"	G1/2"	24V DC	XY-790L
790-01AC24	G1/8"	G1/2"	24V AC	XY-790L
790-02AC24	G1/4"	G1/2"	24V AC	XY-790L
790-03AC24	G3/8"	G1/2"	24V AC	XY-790L
790-04AC24	G1/2"	G1/2"	24V AC	XY-790L

Service Parts	
Timer 110 -220V	XY-790H
Timer 24V	XY-790L
Coil AC	SB256-0543
Coil DC	SB257-0545
Valve	CS-720W
Strainer	CS-S95
Connector	SB201-1



**WARNING**

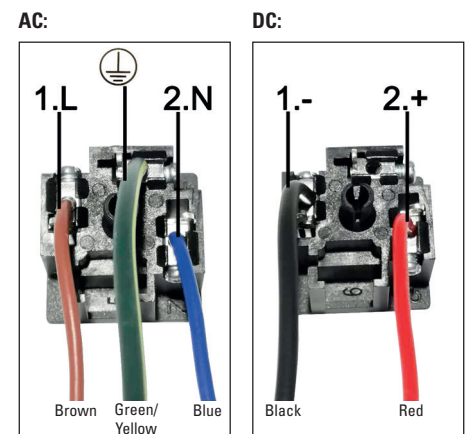
- A competent professional must strictly adhere the instructions herein to ensure safe and long-lasting use of this product.
- The manufacturer will not be held liable for any damages resulting from improper use.

**WARNING**

- Adhere to safe work instructions and engineering codes of practice with the local health, safety and environmental requirements in mind.
- This product is intended for use in industrial compressed air systems only.
- Prevent unintentional operational of the product or damage to it.
- Always depressurise the system before maintenance work is carried out
- **DO NOT** install in applications where pressures and temperature exceed the technical specification.
- **DO NOT** attempt to disassemble this product or lines in the system whilst they are under pressure.

**WARNING**

- When using DC (Direct Current), the positive pole (+) should be connected to connector 1.

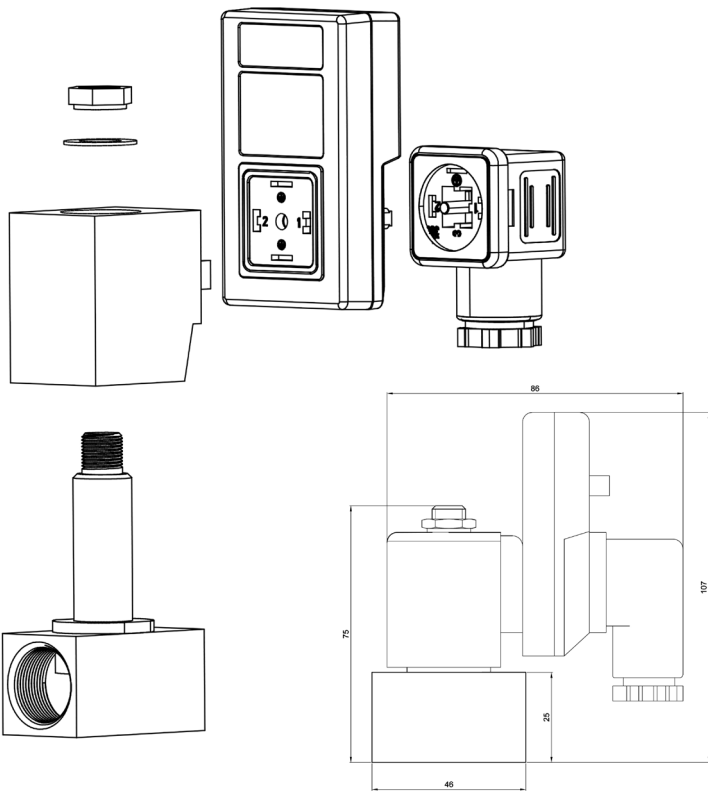


RoHS 3  
COMPLIANT



# Electronic Drain Valve 790

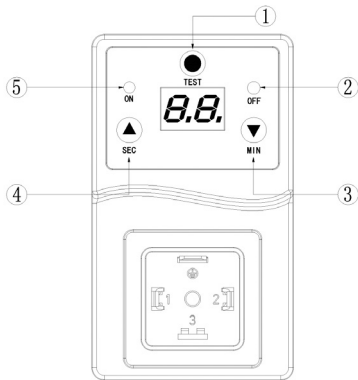
## Installation & Maintenance Instructions for the Electronic Drain Valve



### Timer Instructions

Initial state: LED light will turn **ON** with power (valve open) and then will turn **OFF** (valve closed) at the next time setting and keep cycling according to the settings.

Adjust state: The corresponding LED status indicator flashes when changing data



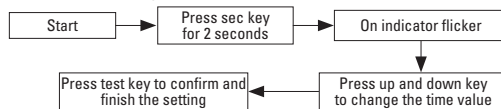
No.	Description
1	Test Key
2	Off Indicator
3	Min/up Key
4	Sec/Down Key
5	On Indicator

#### Main Cycle

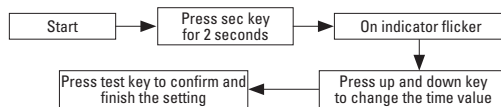


#### Setting

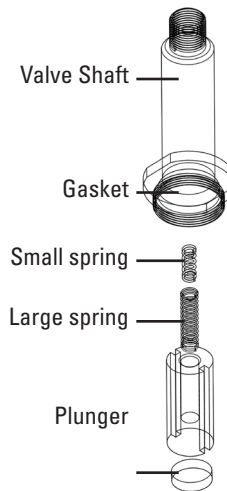
##### 1. On (sec) time setting



##### 2. Off (min) time setting



##### 3. Reset setting



### Installation Instructions



#### WARNING

- Make sure system is depressurised before installation to maintenance is carried out.
- Take note of the direction of the arrow on the valve. The arrow follow the flow direction of the condensate.
- Make sure gaskets are in place with no debris to ensure IP65 rating.
- Check the voltage specified on the coil and back of timer is suitable before you switch the power supply **ON**.
- Press the **TEST** button to check the valve function.
- An oil/water separator, reservoir or pipe line should be installed mounted on the outlet side of the valve to collect the condensate.



- **DO NOT** attempt installation or maintenance when the system is pressurised.
- **DO NOT** allow whiplash when the valve is open if using a hose to collect condensate.
- **DO NOT** overtighten valve shaft (max. torque 45 Nm).
- **DO NOT** use valve shaft as a lever.

### Cleaning Instructions



#### WARNING

- Make sure system is depressurised before installation to maintenance is carried out.
- Press the **TEST** button to empty the unit of any residual condensate and to depressurise the valve.
- Switch **OFF** electrical supply. Check power is switched **OFF** before cleaning.
- Unscrew valve top nut, remove connector, timer and coil assembly from valve shaft.
- Unscrew valve shaft, clean all the valve parts, body and shaft.
- Inspect components, if any are damaged then replace them before reassembly.
- Reassemble the inner parts and shaft.
- Screw the shaft assembly back on to the valve body using wrench (max. torque 45 Nm).
- Place the connector, timer and coil assembly back on to the valve.
- Screw back on the top nut making sure gasket are in place properly with no debris to ensure IP65 rating.
- Switch back on the electrical supply
- Slowly open the ball valve to restore normal system pressure.
- Press the **TEST** button to check the valve function.



- **DO NOT** attempt installation or maintenance when the system is pressurised.
- **DO NOT** overtighten valve shaft (max. torque 45 Nm).



#### WARNING

- Local instructions for Waste Electrical and Electronic Equipment recycling (WEEE) to be applied.