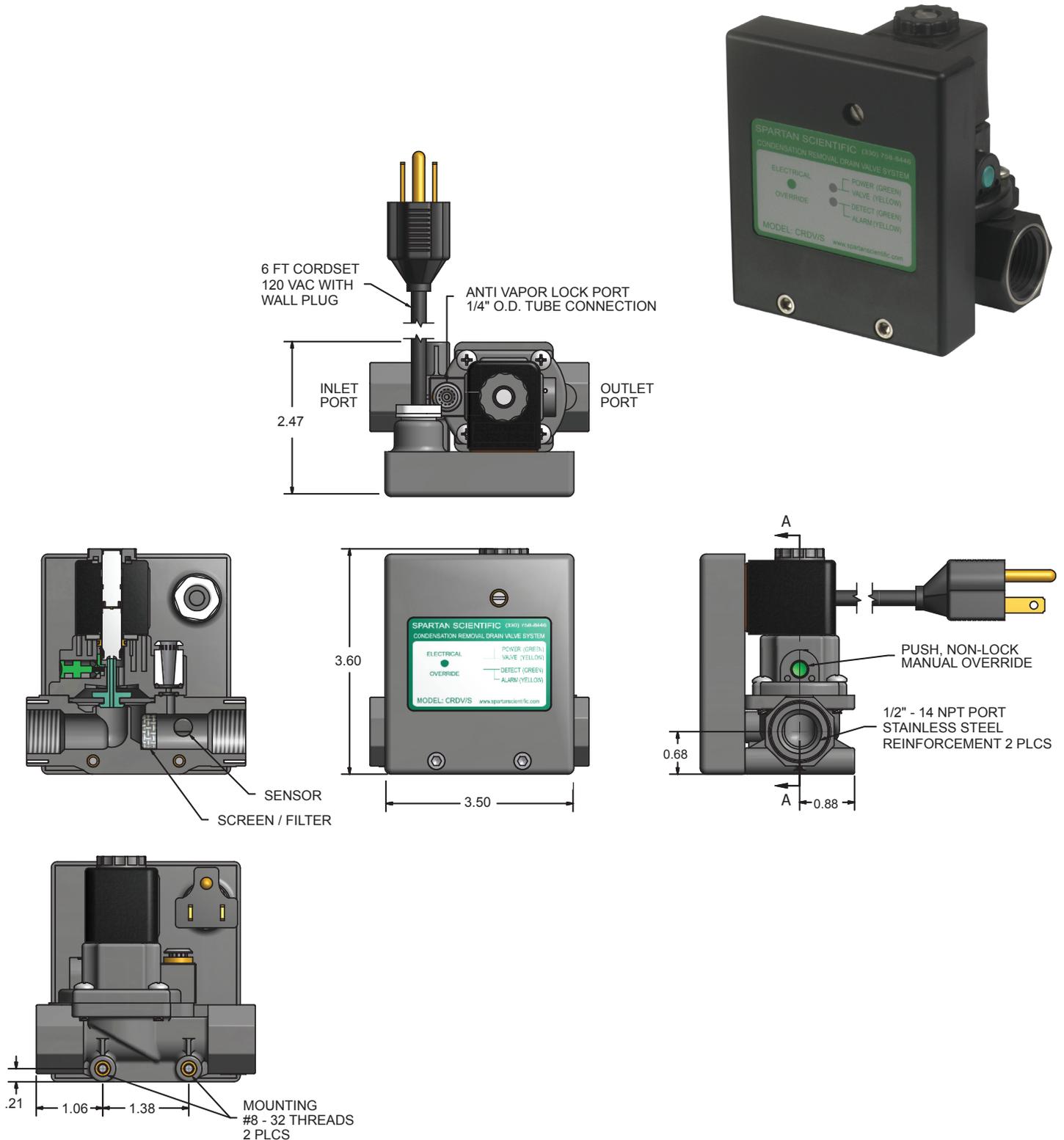




Dimensional Data



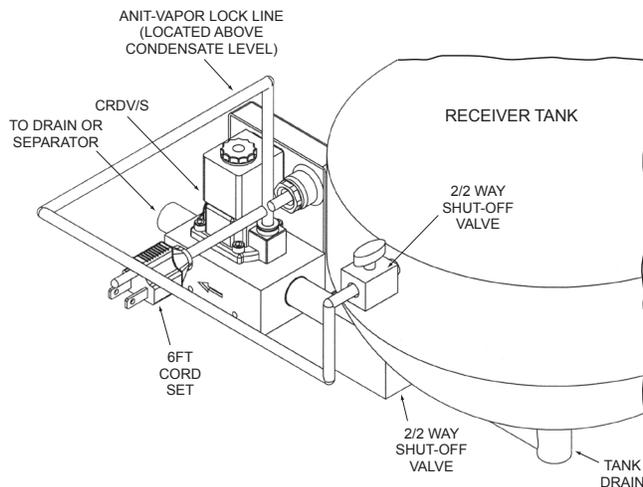


Installation

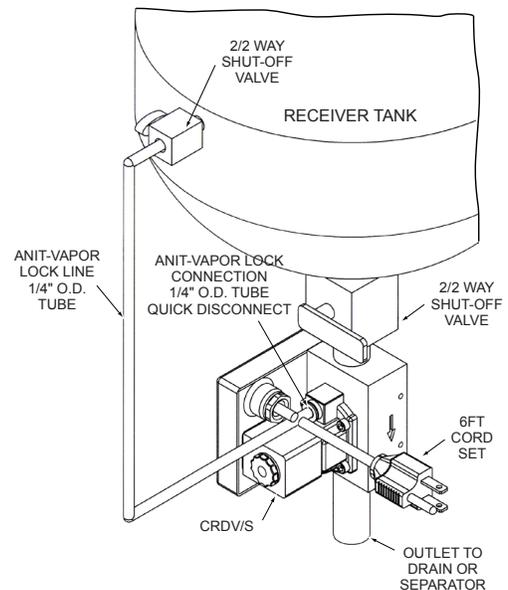
1. The CRDV/S is an automatic device and will cycle with the presence of water at the inlet and one time initially to indicate that it is working. It is important to make all pressure connections prior to making electrical connections as the CRDV/S automatically cycles without warning.
2. Drain the tanks, dryers, coolers or any device that is the producer of the condensate of any water and air pressure prior to CRDV/S installation.
3. It is necessary to mount the CRDV/S below the vessel it is draining, as the condensate is gravity fed to the inlet port of the CRDV/S.
4. Connect the unit's inlet port to the condensate line; follow the flow arrow on the CRDV/S, (it is advisable to install a ball valve or ball valve strainer to facilitate future service of your CRDV/S).
5. Connect the exhaust port to an air-oil separator or equivalent device.
6. Connect the anti-vapor lock port, 1/4" O.D. Tube quick connect to a source of clean dry air that is consistent with the pressure found at the condensate inlet port.
7. Connect the wall plug to a convenient wall connection and you are ready to go.

NOTE: Spartan Scientific strongly recommends the use of a strainer prior to the inlet of the CRDV/S to filter out any particulate. If no strainer is used particulate build up may occur causing a minor leak. To remedy this condition, it is necessary to apply a sustained purge of 5 to 10 seconds to clear the debris.

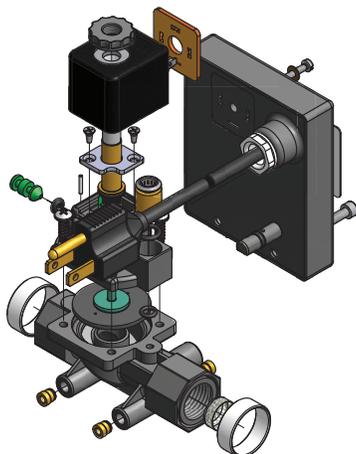
HORIZONTAL MOUNTING



VERTICAL MOUNTING



EXPLODED VIEW





How It Works

Normal Mode:

When the CRDV/S is first connected to electricity, the unit automatically energizes the solenoid valve for 1 second to indicate the presence of electricity and to self-test. As condensate is generated, the water and effluent falls by gravity through the piping to the inlet of the CRDV/S. Nothing happens until the CRDV/S solid-state sensor senses the presence of condensate. At that time the electronics sends the signal to energize the solenoid valve, which opens and exhausts the condensate from the pneumatic system. After a 1 second purge interval the valve de-energizes and the sensor no longer senses water at the inlet port. The CRDV/S then goes dormant for a minimum of 30 seconds after which the unit will stand ready to purge condensate again, only when it is sensed. As condensate once again builds up, the sensor senses the presence of condensate and the purge cycle continues.

High Flow Mode:

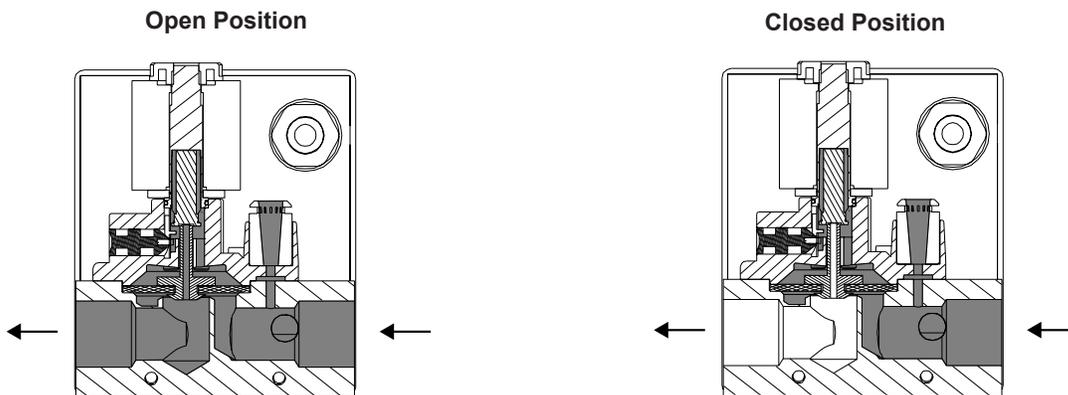
If, during Normal mode, there is a high production of condensate, the CRDV/S functions change to accommodate the increased need to remove the water from the system. As in Normal Mode, the CRDV/S remains dormant, sensing for condensate. As there is a high amount of condensate at the inlet port, so much so that the 1 second purge will not remove it all from the port, the CRDV/S "learns" and opens for a 4 second purge interval. The unit then goes into a 30 second wait cycle after which the CRDV/S, if it continues to sense condensate, re-cycles once again at 4 second purge interval. The sensor goes into alarm mode. During alarm mode the CRDV/S repeats a 4 second purge interval and 30 second wait until such time as the sensor stops sensing condensate. When the sensor runs free of condensate the CRDV/S then returns to normal mode.

Electrical and Manual Override:

The CRDV/S is equipped with both a manual override and an electrical override. The manual override is the green push button found on the side of the valve at the back of the unit. Pressing this button allows for drainage of the condensate line without the need for electricity. The electrical override is a button found at the front of the unit which energizes the solenoid and drains the condensate line. Both overrides are momentary contact, spring return.

One 1 second purge cycle every 24 hours

There is one 1 second purge cycle every 24 hours just to ensure that the condensate lines are clear and effluent is flowing to the CRDV/S.



Indicator Light Chart

<p>NO POWER when not lit</p>		<p>POWER (GREEN) = Electricity is Connected to CRDV/S VALVE (YELLOW) = Valve ON, Condensate is Purging</p>
<p>NO CONDENSATE DETECTED when not lit</p>		<p>DETECT (GREEN) = Condensate Detected ALARM (YELLOW) = Alarm Mode / 4 Second Purge</p>



Model CRDV/S

Application and Installation Guide

Technical Data

Function: 2-way, 2-position normally closed diaphragm, internal pilot

Port Size: 1/2" NPT

Pressure Range: 0 to 180 psi

Flow Factors: 1/2" orifice, Cv 2.45

Temp. Range: 10°C to 50°C
This device is not recommended for use in below freezing temperatures.

Response Time: 20 to 80ms complete cycle

Materials: Operator: AISI 400 Series Stainless and Brass
Shading Ring: Copper
Seals: Viton standard
Valve Body: Zytel, Nylon
Timer Enclosure: ABS
Cable: PVC

Media: Air, Oil, Gas, Water, Emulsion

Mounting: On pipe or #8-32 mounting holes on valve base

Electrical Data

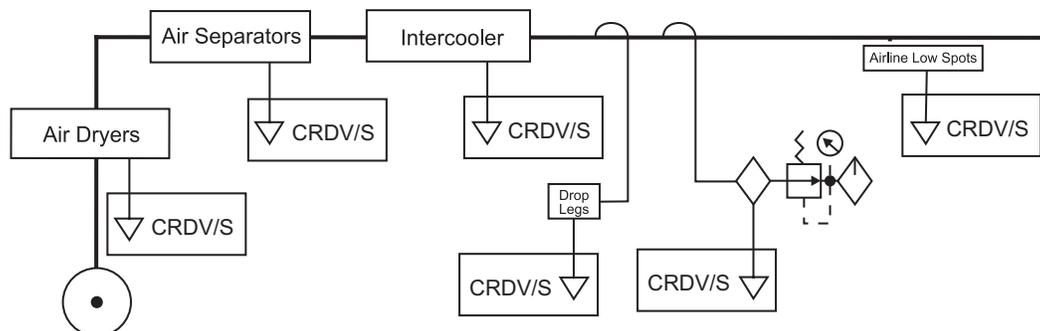
Voltage: 120 VAC 50/60 Hz

Transient Suppression: MOV

Power Consumption: 8 Watts max.

6 ft.cord with grounded wall plug

Applications



Caution

Excessive use of pipe sealant can cause clogging and leakage. Please follow ASME standards for applying pipe sealant and tape. Do not use media, voltage or pressures other than that recommended by Spartan Scientific Inc. as valve malfunction could result. Misuse or misapplication of Spartan solenoid valves could cause serious bodily injury or property damage.

Warranty Information

Solenoid valves and all other products manufactured by Spartan are warranted by Spartan to be free from defects in material and workmanship for a period of 1 year from the date of purchase. Spartan's obligation under this warranty is limited to repair or replacement of the defective product or refund of the purchase price paid solely at the discretion of Spartan and provided such defective product is returned to Spartan freight prepaid and upon examination by Spartan such product is found defective. This warranty shall be void in the event that the product has been subject to misuse, misapplication, improper maintenance, modification or tampering. This warranty is expressed in lieu of all other warranties, expressed or implied from Spartan Scientific, Inc., representatives or employees.