

MicroVision Boiler Programmable Controller



The **MicroVision Boiler Controller** delivers comprehensive boiler water control with 'plug & play' simplicity, at an outstanding value. This latest addition to the MicroVision family of controllers is configured specifically for boiler water control, and utilizes intuitive software which provides simple set-up, while providing state of the art maintenance of the water in your boiler. Features of this device include a reliable temperature compensated conductivity probe, 5 output relays with selectable timers, scalable 4-20mA output to report conductivity, hall-effect and pulse water meter inputs and digital drum levels or a boiler interlock input.

Operating Benefits

- **Simple programming.** The unit is factory preset to operate in timed sample mode right out of the box. Intuitive menus make program alterations easy and understandable.
- **Easy installation.** With pre-wired and conduit connection options, the NEMA 4X enclosure is easy to install.
- **Easy to use.** Large graphical display, LED function indicators and touch pad program keys provide the user with clear and precise system information.
- **Reliable conductivity probe.** The standard conductivity probe is rugged and reliable; temperature compensated for accurate readings from 0 – 20,000 uS.
- **2 year warranty.** The MicroVision Boiler controller is rugged and reliable, and backed by a two year warranty.

Key Features

- **Selectable sampling modes:** Continuous, Timed Sample and Sample & Hold modes to meet any system requirement.
- **Powered relay** for motorized ball valves or solenoid blowdown valves.
 - **3 Powered relays** for chemical metering pumps.
 - **Selectable timers** (pulse, limit, %, 28 day & cycle).
 - **Dry contact relay** for remote alarm.
- **4-20mA output**, isolated and scalable.
- **5 Digital inputs** in total with water meter and boiler interlock.
- **Large graphical display** with status screen for instant access to system information.



MicroVision Boiler Model Selection

MicroVision Boiler Selection Guide		MVBX	-	-	-	-	-	-	-	XXX
PRODUCT DESIGNATOR Position 1 thru 4	MVBX = MicroVision Boiler Controller									
REVIEW AND WIRING Position 5	P = Prewired with pigtails (115 VAC only) C = Conduit connections (115V or 230V)									
ENCLOSURE OPTIONS Position 6	H = Heavy Duty Enclosure									
SYSTEM OPTIONS ASSEMBLED Position 7	X = None A = 1/2" Solenoid valve, one 1" orifice union w/4 plates (Timed Sample) 100 PSI MAX. B = 1/2" Motorized ball valve one 1/2" flow throttling valve (Timed Sample) 250 PSI MAX C = 1/2" Motorized ball valve one 1" orifice union w/4 plates (Timed Sample) 250 PSI MAX D = 3/4" Motorized ball valve, one 3/4" throttling valve, one 1/2" throttling valve (Continuous Sample) 250 PSI MAX E = 3/4" Motorized ball valve, two 1" orifice union w/4 plates (Continuous Sample) 250 PSI MAX F = High Pressure Flow Assembly (250 PSI) for cooling tower applications									
SENSOR OPTIONS Position 8	X = No Sensor Provided S = Contact Electrode, 250 PSI Max (210 PSI for steam) 392° F Max									
CABLE LENGTH Position 9 thru 11	000 = No Cable Supplied 010 = 10 Feet of sensor cable 025 = 25 Feet of sensor cable 050 = 50 Feet of sensor cable 075 = 75 Feet of sensor cable 100 = 100 Feet of sensor cable 150 = 150 Feet of sensor cable									
SUFFIX CODES Position 12 thru 14	XXX = Standard Unit									

Controller Specifications

Enclosure	NEMA 4X / IP65
Dimensions	243.3 x 185 x 132 mm (9.58 x 7.28 x 5.20in)
Power Supply	100-240VAC ±10% 5A
Control Output	2A per relay
Display	LCD

Standard Sensor Specifications

Maximum Temperature	200°C (392°F)
Maximum Pressure	17 BAR (250 PSI)
Saturated Steam MAX.	14.4 BAR (210 PSI)
Conductivity Range	0 to 20,000µS/cm
Cell Constant and TC	1.0 PT-1000 RTD
Wetted Materials	316 SS



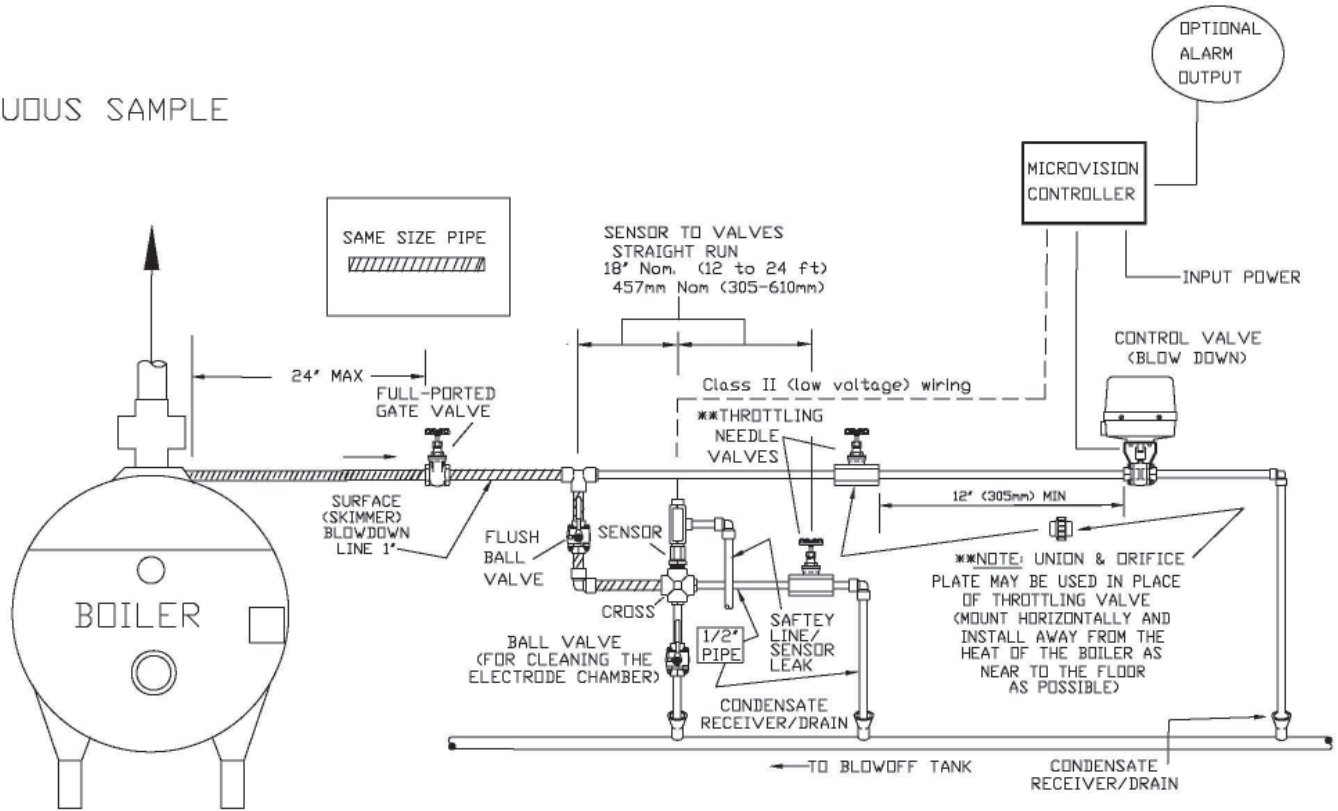
Input and Output Functionality

System Outputs	Blowdown	Timer 1	Timer 2	Timer 3	Alarm/Timer 4
Output Type	Relay 1	Relay 2	Relay 3	Relay 4	Dry Contact
Limit		X	X	X	X
28 Day		X	X	X	X
Pulse		X	X	X	X
Percent		X	X	X	X
Cycle		X	X	X	X
System Alarm					X

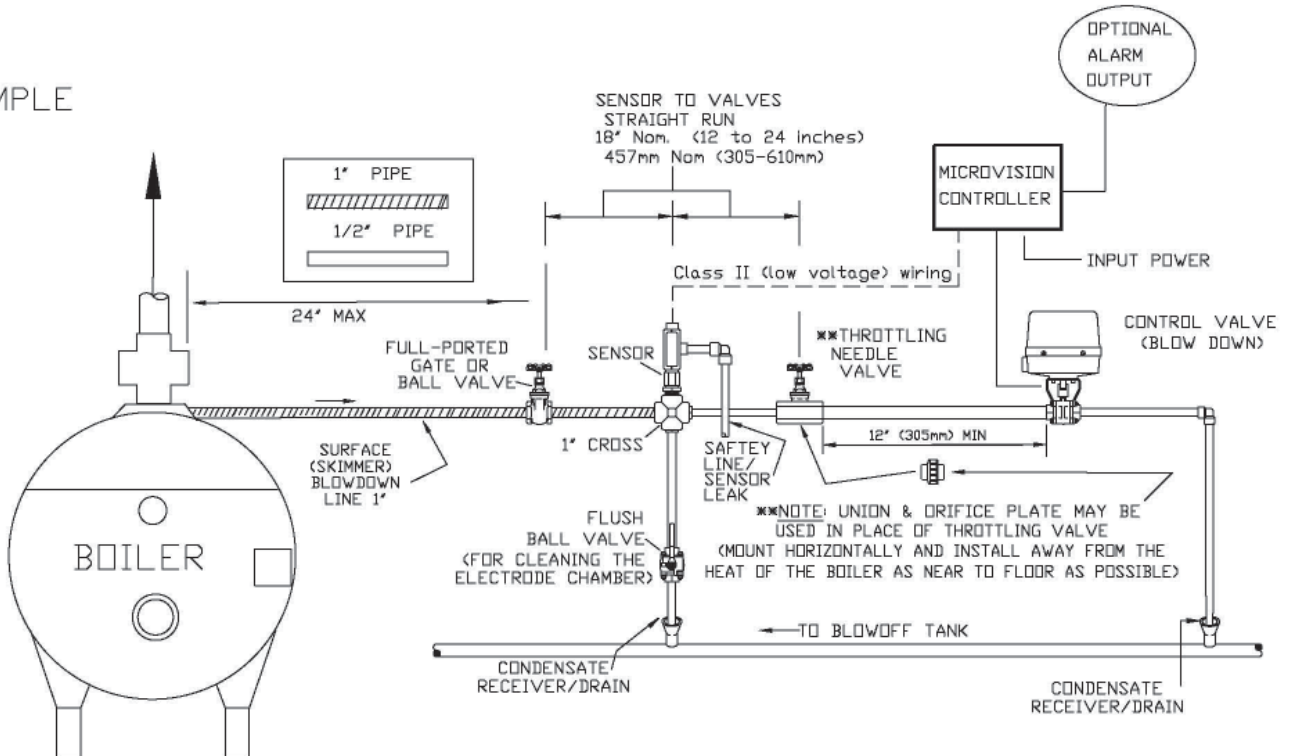
Programmable Inputs	Input 1	Input 2	Input 3	Input 4	Input 5
Drum Level		X	X	X	X
Dry Contact Water meter	X	X	X	X	X
Hall effect	X				
Interlock					X

MicroVision Boiler Installation Drawings

CONTINUOUS SAMPLE



TIMED SAMPLE



PULSAFEEDER[®] **GENUINE PARTS**



VALVE PACKAGES - System Options

Materials of construction: Solenoid Valves are bronze body with stainless steel pilot and valves; Motorized Ball Valves are carbon steel body with 316 stainless steel ball and stem; Throttling Valves are carbon steel body and valve; and Orifice Unions are carbon steel union with stainless steel plates.



A **SAMPLE COOLER** provides a safe method of withdrawing and cooling boiler process water for analysis. Our 304SS coolers are easy to install, and handle sample pressures to 2500 PSI.



FLOW CONTROL VALVES – Boiler Applications

Flow control valves maintain sufficient back pressure in boiler blowdown lines in order to prevent flashing and to ensure adequate blowdown rates. The orifice union includes four plates, 1/16" , 1/8" , 1/4" and a 5/16". Flow control valves include an indexed position indicator.



CONTACTING HEAD WATER METERS Multi-Jet Meters, 3/4 in. to 2 in., are designed for use in conjunction with a pulse timer to proportionally control pumps, valves etc. The Multi-Jet chamber of the water meter assures accuracy over a wide range of flows with low head loss.



An ISO 9001 and 14001 Certified Company



A Unit of IDEX Corporation



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