

# Series 9120

Single or dual loop set point controller used in carbon, oxygen, millivolt, nitriding and dual loop control applications

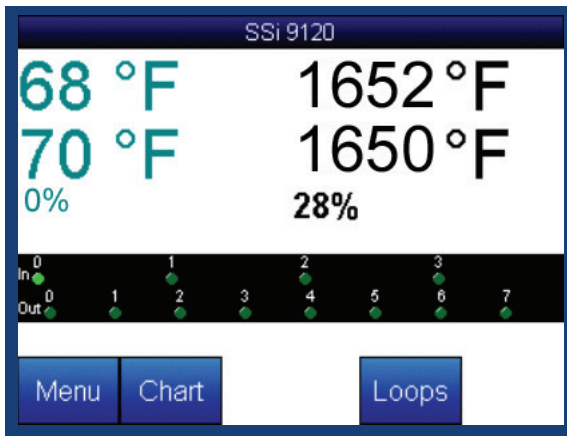


Available screen sizes:  
3.5", 5.7", 12.1"

## Single/Dual loop controller with data logging

The versatile instrument is supplied with Ethernet and supports Modbus TCP host communications and can support up to 25 slave serial instruments via Modbus RS485. The 9120 comes with a web server for thin client control

- 3.5, 5.7, or 12.1" touch screen interface
- Digital data logging to flash card - built in paperless recording
- DIN rail mount
- 8 relay contacts
- 24VDC (Power Supply Included)
- Analog Outputs - PV Retransmission
- Multiple PIDs
- Overshoot Suppression Logic
- Auto Tuning
- PID Switchpoints
- Two (2) RS485, RS232, ETHERNET
- 4-20mA Current Control Output
- Two (2) Discrete Inputs
- 24 VDC Power Supply
- Note that the 9120 does not run recipes



## 9120 Applications

### Oxygen Probe mV Control

Single-loop control used for applications where mV reading from oxygen probe and temperature are used to control outputs

Control loops:

- mV
- Temperature

### Nitriding

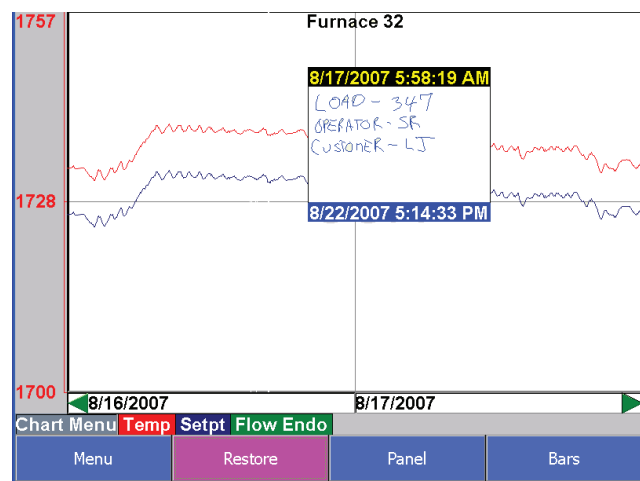
Used for applications where H<sub>2</sub> reading is used to calculate dissociated ammonia (DA).

Outputs:

- DA 0 - 100%
- H<sub>2</sub> 0 - 100%

### Dual Loop

Multi-loop control used for applications where universal input reading from analog input 1 and analog input 2 are used for setpoint control for both loops.



Built in Chart Recorder with Notes

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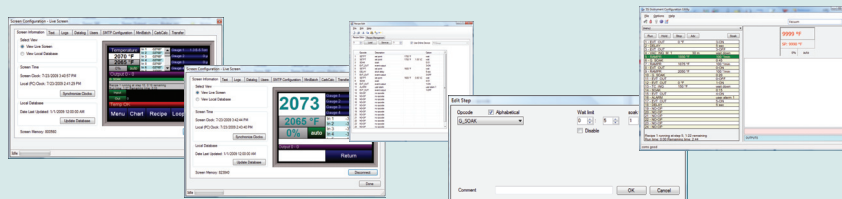


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# Configuration Software and Data Management

## Software Included

- TS Manager - Data management for touch screen flashcard. Remote data viewer, historical data backup, SuperDATA integration.
- Configurator - Remote setup and configuration of controller.



Non-volatile flash memory data storage

## Single/Dual-Loop Controllers



P/N 13563  
P/N 13564

### Model 1500

- Atmosphere control system
- Integral reference air and burnout air system
- Designed for either endothermic generator or furnace
- Electrical drawings for easy customer installation
- Typically in stock - ready for delivery

#### Single-Loop Carbon Controller

- Gas and Air Relay Output
- 4-20mA PV Re-transmit
- One (1) Discrete Output (Probe Burnoff or Alarm)

#### Single-Loop Dewpoint Controller

- One (1) Control Relay Output
- 4-20mA PV Re-transmit
- Two (2) Discrete Outputs (Probe burn off and recovery)

#### Single-Loop Oxygen Controller

- Two (2) 4-20mA PV Re-transmit
- Three (3) Discrete Outputs

#### Dual Loop, Carbon and Temperature

- Gas and Air Control (Relay or Current)
- Temperature Control (Relay or Current)
- 4-20 mA PV retransmission
- Alarm Contacts
- Probe Burnoff

#### Dual Loop Temperature

- 2 control Relay Outputs or 4-20mA Control output
- 4-20mA PV retransmission
- Alarm Contacts

#### Single Loop Nitriding

- 4-20mA PV retransmission (DA)
- 4-20 mA PV retransmission (H<sub>2</sub>)
- Alarm Contacts



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