



**ACL**  
Manufacturing  
A Division of ClearRushCo.

# Forced Draft Combustion Safety Controller

**Model: ACL - CSC400-FD**



## Approvals

CSA approved for Class I Div 2 location  
CSA B149.3-20  
C22.2 No 199-M89  
E60730-1-2013  
ANSI Z21.20-2014  
CAN/CSA C22.2 No. 60730-2-5-2014  
Compliant, meets NFPA standards  
(See product specification sheet on reverse)

The ACL Forced Draft CSC400-FD Combustion Safety Controller is an advanced, reliable Burner Management System that provides burner ignition and air/fuel ratio control for forced draft burner applications. It monitors three separate thermocouple inputs that can be used for temperature control in process applications such as

Line heaters, Treaters  
Re-boilers, Dehydrators  
Tanks, Separators  
Combustors  
Incinerators  
Flare Stacks

The CSC400-FD is simple to use but powerful in its capabilities and safety controls. The CSC400-FD provides control for fuel and air ratios for fine tuning. The CSC400 provides two 4-20 mA inputs and outputs for shutdown, monitoring, and/or transmitter requirements. Modbus communications for measurement and control is provided as standard.

**[www.clearrushco.com](http://www.clearrushco.com)**

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Canada



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## Features

Type 4X enclosure, corrosive resistant and weatherproof, large and accessible
Easy to navigate menu system
Pre-purge, post-purge times configurable
Pressure transmitter input for combustion air
Air/gas ratio tuning control
All-in-one design. No need for external enclosure or additional controls.
Remote Stop and Start via Modbus or Direct Control
Pilotless or continuous pilot operation. Reliable pilot system.
12/24VDC and solar
Data logging & acquisition capabilities
Modbus communications built in
Low power consumption (< 7.5W max, both ignitors, without solenoids)
100% Failsafe design: Ignition Modules CSA certified to C22.2 60730-2-2014, ANSI Z21.20-2014
Customizable 4-line display
Onboard solenoid driver for power reduction to solenoids and peak-hold solenoids
Three adjustable Type-K thermocouple inputs for monitoring process temperatures and high temperature (Type-S also available)
Full annunciation of shutdowns: Flame Fail, Power Fail, Level, Remote S/D, Pressure, High Temperature (TC2, TC3), Proof of Closure, 4-20mA Input Alarm/Shutdowns.
Monitor gas flow and tank levels
Two 4-20 mA Inputs, with Local Power-Sourcing Availability and Optional Control for TMain solenoids. Shutdown capable.
Two 4-20 mA Powered Outputs, Linear or Proportional Valve Control (optional full PID also available)
Single or Dual Burner Controls. Three solenoid outputs each (6 total).
Three solenoid outputs for each burner: Pilot, Main, Temperature Main, up to 3A each
Ignition module mounted on board or remotely
Two Auxiliary Relays (NC-COM-NO) for optional external indication and/or controls (30VDC, 1A max)
Brownout Protection - CSC400 will continue in previous state if a brownout/blackout condition is detected
Operational ambient temperature of -40°C to +60°C (Celsius or Fahrenheit readout)

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