Code No. LIT-1900518
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LC-ZEC100-0, LC-BYP100-0, LC-ZEC110-0, LC-ZEC120-0

CCS Zone and Bypass Damper Controllers

Description

The CCS Zone and Bypass Damper Controllers are application specific, factory programmed digital controllers that communicate via the BACnet® MS/TP Protocol. Both the zone and bypass controllers operate as part of a larger zoning system and provide simple zone and pressure control for the appropriate mechanical equipment. These controllers ship factory-configured as part of a CCS zone or bypass damper assembly.

The zone controller modulates the zone damper in response to temperature variations relative to a user-defined space temperature setpoint. The bypass controller modulates a unit bypass damper to maintain supply duct static pressure setpoint.

The Zone and Bypass Damper Controllers include advanced operating modes that ensure occupant comfort. A Carbon Dioxide (CO_2) Demand Controlled Ventilation (DCV) mode regulates CO_2 levels within a zone by allowing fresh air into the zone during occupied times. Occupancy sensing capability enables the controller to switch from occupied mode to standby mode based upon the presence of local activity. Standby mode maximizes energy savings by using setpoints that are higher and lower than occupied mode setpoints.

Features

- Factory mounted pressure sensor (for bypass controller) and actuator reduce installation time.
- The fast response actuator drives the damper from full open to full close (90°) in 60 seconds to reduce commissioning time.
- Continuous loop tuning through Pattern Recognition Adaptive Control (PRAC) technologies



CCS Zone and Bypass Controller

Repair Information

If a CCS Zone or Bypass Damper Controller fails to operate within its specifications, replace the unit. For a replacement controller or associated damper assembly component, contact the nearest Johnson Controls® representative.

Selection Chart

Ordering Information

Code Number	Description
LC-ZEC100-0	Zone Equipment Controller
LC-ZEC110-0	Zone Equipment Controller with Staged Supplement Heat
LC-ZEC120-0	Zone Equipment Controller with Modulated Supplemental Heat
LC-BYP100-0	Bypass Equipment Controller

Accessories and Repair Parts

Product Code Number	Description
Y65T54-0	Transformer UL Class 2, 40 VA, 120/208/240 24 VAC
Y65F13-0	Transformer UL Class 2, 40 VA, 277/480 24 VAC
263G-005-JC6	Static pressure transducer 0.5 to 4.5 VDC, 0 to 5.0 in. W.C. (Bypass Only)
TE-68NT-0N00S	Wall Temperature Sensor, 1k ohm, Nickel with Temporary Occupancy Push Button
TE-68NT-1N00S	Wall Temperature Sensor, 1k ohm, Nickel with Warmer/Cooler Adjustment and Temporary Occupancy Push Button
OLS-2100-1	Occupancy Sensing Light Switch
CD-W00-00-1	Wall-mounted CO_2 Sensor (0–2,000 ppm Range)
RIBU1C[1]	Enclosed Relay for OLS-2100-1 Sensor
FTG18A-600R	Duct Static Pressure Probe Kit: 4 in. Flanged Sensing Tube, Two Barbed Fittings, Two No. 10 Screws, and O Gasket (Bypass Only)
M9104-AGA-3S	Damper Actuator

1. When the OLS-2100-1 sensor is used in conjunction with the RIBU1C relay, the controller can use an occupancy sensing strategy for temperature control.

The performance specifications are nominal and conform to acceptable industry standards. For applications at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products. © 2011 Johnson Controls, Inc.

CCS Zone and Bypass Damper Controllers (Continued)

Technical Specifications

CCS Zone Controller	
Product Code Number	**LC-ZEC100-0:** Zone Controller **LC-ZEC110-0:** Zone Controller with Staged Supplemental Heat **LC-ZEC120-0:** Zone Controller with Modulated Supplemental Heat
Power Supply Requirement	20–30 VAC at 50 to 60 Hz, Class 2 power supply or Safety Extra-Low Voltage (SELV) at 50/60 Hz (20 VAC minimum)
Power Consumption	3 VA (not including external load)
Ambient Conditions	Ambient Operating Conditions: 32 to 122°F (0 to 50°C); 10 to 90% RH condensing Ambient Storage Conditions: -40 to 185°F (-40 to 85°C); 10 to 90% RH
Processor	20 MHz Renesas® H8S2398 processor
Memory	1 MB Flash Nonvolatile Memory for Operating System, Configuration Data, and Operations Data Storage and Backup 512k Synchronous Random Access Memory (SRAM) for Operations Data Dynamic Memory
Housing	Plastic housing material: ABS + polycarbonate UL94-5VB Protection: IP20 (IEC 60529)
Mounting	On a flat surface with screws
Dimensions (Height x Width x Depth)	5-1/2 x 5-1/2 x 1 in. (140 x 140 x 25 mm)
Shipping Weight	0.30 lb (0.14 kg)
Compliance	**United States** UL Listed, File E107041, CCN PAZX, UL 916 FCC Compliant to CFR47, Part 15, Subpart B, Class A
	Canada UL Listed, File E107041, CCN PAZX7, CAN/CSA C22.2 No. 205, Signal Equipment Industry Canada Compliant, ICES-003

CCS Bypass Controller	
Product Code Number	**LC-BYP100-0**
Power Supply Requirement	20–30 VAC at 50/60 Hz, Class 2 power supply or Safety Extra Low Voltage (SELV) at 50/60 Hz (20 VAC minimum)
Power Consumption	2 VA (not including external load)
Ambient Conditions	Ambient Operating Conditions: 32 to 122°F (0 to 50°C); 10 to 90% RH condensing Ambient Storage Conditions: -40 to 185°F (-40 to 85°C); 10 to 90% RH
Processor	20 MHz Renesas H8S2398 processor
Memory	1 MB Flash Nonvolatile Memory for Operating System, Configuration Data, and Operations Data Storage and Backup 512k Synchronous Random Access Memory (SRAM) for Operations Data Dynamic Memory
Housing	Plastic housing material: ABS + polycarbonate UL94-5VB Protection: IP20 (IEC 60529)
Mounting	On a flat surface with screws
Dimensions (Height x Width x Depth)	5-1/2 x 5-1/2 x 1 in. (140 x 140 x 25 mm)
Shipping Weight	0.14 kg (0.30 lb)
Compliance	**United States** UL Listed, File E107041, CCN PAZX, UL 916 FCC Compliant to CFR47, Part 15, Subpart B, Class A
	Canada UL Listed, File E107041, CCN PAZX7, CAN/CSA C22.2 No. 205, Signal Equipment Industry Canada Compliant, ICES-003

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