

ECL Series

LONMARK Certified Programmable Controllers



	ECL-103	ECL-203	ECL-253	ECL-300	ECL-350	ECL-400	ECL-403	ECL-410	ECL-413	ECL-450	ECL-453	ECL-600	ECL-610	ECL-650	ECx-400	ECx-410	ECx-420	
General																		
Controller Status LED	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Interactive color operator interface			■		■					■	■			■				
Real-Time Clock				■	■	■	■	■	■	■	■	■	■	■				
DIN-Rail Mounting		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
LONMARK Device Class	SCC Generic	SCC Generic	SCC Generic	SPD ¹	SPD ¹	SPD ¹	SPD ¹	SPD ¹	SPD ¹	SPD ¹	SPD ¹	SPD ¹	SPD ¹	SPD ¹				
Operating Temperature Range:																		
32 to 122°F; 0 to 50°C	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
-40 to 158°F; -40 to 70°C		■ ²																
Inputs																		
Universal (Software Configurable)	4	6	6	10	10	12	12	12	12	12	12	16	16	16	12	12	12	
0-20mA/4-20mA (external 249Ω Resistance)	■	■	■															
0-20mA/4-20mA (built-in 249Ω Resistance, Jumper Selectable)				■	■	■	■	■	■	■	■	■	■	■	■	■	■	
50 Hz Pulse				■ ³	■ ³	■ ³	■ ³	■ ³	■ ³	■ ³	■ ³	■ ³	■ ³	■ ³	■ ³	■ ³	■ ³	
Analog/Digital Converter (Bits)	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	
Allure™ Series Communicating Sensor Capability	4	4	4	12	12	12	12	12	12	12	12	12	12	12				
Wireless inputs ⁴	18	24	24	28	28	28	28	28	28	28	28	28	28	28				
15VDC Power Supply	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Outputs																		
Universal (Analog)	2	3	3	8	8	12	4	12	4	12	4	12	12	12	12	12	0	
Digital/Analog Converter (Bits)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
0-20mA/4-20mA (Jumper Selectable)				■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Digital (Triac 24 V AC)	4	5	5				8		8		8							
Output LED Status Indicator		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
HOA Switch								■	■				■			■		
Power Input																		
24 VAC	■																	
24 VAC/VDC		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Power Status LED Indicators	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

1. SPD: "Static Programmable Device" LONMARK Device Class.
2. Also available with the environmental protection (conformal coating) option.
3. The first four inputs are software configurable for pulse counting; 50 Hz maximum frequency.
4. All controllers are Open-to-Wireless™ ready. Available when an optional Wireless Receiver is connected to the controller. Some wireless sensors may use more than one wireless input from the controller.



Programming – Configuration

EC-gfxProgram	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Pre-Loaded Application																

Communication

LonMark Certified	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
LonWorks TP/FT-10	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rx LED Indicators		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Tx LED Indicators		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Objects

Calendar Objects	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
Schedule Objects	2	2	2	8	8	8	8	8	8	8	8	8	8	8	8	8
Loop (PID)	8	8	8	30	30	30	30	30	30	30	30	30	30	30	30	30
Constants																
- Boolean	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124
- Enumeration	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
- Numeric	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
Variables																
- Boolean	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124
- Enumeration	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
- Numeric	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
nciSetpoint	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total Network Variables	170	176	176	161	161	171	171	171	171	171	171	171	254	254	254	254
Network Variable Input (General Usage)																
- NVI Changeable Type, Up to 31 Bytes ⁴	50	50	50	35	35	35	35	35	35	35	35	35	35	35	35	35
Network Variable Output (General Usage)																
- NVO Changeable Type, 31 Bytes	50	50	50	35	35	35	35	35	35	35	35	35	35	35	35	35
Hardware Input Network Variable																
- nvoHwInput per Hardware Input	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■ ⁵	■ ⁵
Hardware Output Network Variable																
- nviHwOutput per Hardware Output	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■ ⁵	■ ⁵
- nvoHwOutput per Hardware Output	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■ ⁵	■ ⁵

5. Any type of Fan-In function is supported in combination with the “FOR” loop function.
 6. These Network Variables are managed by the ECL-600, ECL-610, or ECL-650 controller (master).

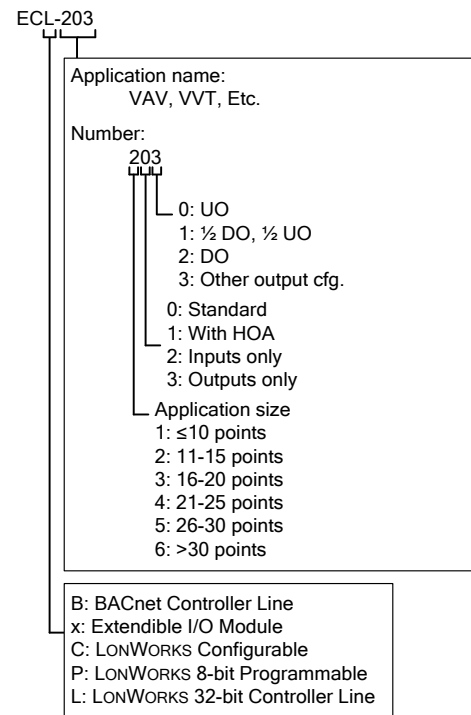


Recommended Applications

	ECL-103	ECL-203	ECL-253	ECL-300	ECL-350	ECL-400	ECL-403	ECL-410	ECL-413	ECL-450	ECL-453	ECL-600	ECL-610	ECL-650	ECx-400	ECx-410	ECx-420
2 pipe Fan Coil	■	■	■														
2 pipe Fan Coil with Changeover Sensor	■	■	■														
4 pipe Fan Coil	■	■	■														
Chilled Ceiling	■	■	■														
Heat Pump	■	■	■														
Unit Ventilator	■	■	■														
Small Roof Top		■	■ ¹														
Medium Roof Top		■	■ ¹					■		■		■					
Large Roof Top								■		■		■					
Small Air Handling Unit		■	■	■	■												
Medium Air Handling Unit				■	■	■	■	■	■	■	■	■	■	■			
Large Air Handling Unit				■	■	■	■	■	■	■	■	■	■	■	■	■	■
Multi-Zones Application				■	■	■		■		■		■	■	■	■	■	■
Chillers				■	■	■	■	■	■	■	■	■	■	■	■	■	■
Boiler				■	■	■	■	■	■	■	■	■	■	■	■	■	■
Cooling Tower				■	■	■	■	■	■	■	■	■	■	■			
Central Plant												■	■	■	■	■	■

1. Also available with the environmental protection (conformal coating) option.

Controller Naming Conventions:



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