

Feature	nCompass LC	nCompass CM	Product Notes
General			
Touch Screen Sizes	4.3"	4.3" and 7"	
Configurable "Home" View	Yes	Yes	
Loop Controls	1 or 2	1 - 10	
PID Output (1 or 2 PID sets per loop available)	Yes	Yes	
Cascade logic block	No	Yes	
Monitor Inputs (note LC B42 PID boards configurable as PID or Monitor inputs)	none, 1 or 2	none or 1 - 15	
Loop Control & Monitor Input Views: Single, Dual & Overview	Single & Dual only	Yes	
Chart View Trend View (walk by trend views w/configurable L/R axis per value and view total time)	Yes (4-views with 6-values per view)	Yes (8-views with 8-values per view)	
Alarms: Process & Deviation (high, low & Deviation band)	Yes	Yes	
Alarms: PID Percent and Digital Input and Output Defeat	No	Yes	
Security with Audit Trail (4 user groups/30 users)	Yes	Yes	
Digital Inputs (note #1 LC, note #2 CM)	1 per loop	8 standard /16 max	
Digital Outputs (note #3 LC, note #4 CM)	4 max/loop	8 standard /32 max	
System Navigation: icon & Windows® drop down	Yes	Yes	
Languages: 1-touch configuration 28 languages	Yes	Yes	
FDC Loop Controls and Monitor Input accuracy comply with NADCAP AMS2750E, FDC CFR21 Part 11 and JACHO requirements	Yes	Yes	
Data Logging			
Data File Naming (16 alphanumeric characters appended by start date-time)	Yes	Yes	
Data File start on boot, profile start or manual (note #5)	Yes	Yes	
Data File start on digital input	No	Yes	
View active or archived data files on display	Yes	Yes	
Data File export via USB or LAN (LAN transfer by email or FTP)	Yes	Yes	
Data File configurable auto stop-restart by day (1-31 days)	Yes	Yes	
Configurable Data Interval (2-seconds to 31 minutes)	Yes	Yes	
Operator Annotations (operator notes/events)	Yes	Yes	
Operator Annotations via serial Bar Code Reader	No	Yes	
Data Log File Type: saved as .csv	Yes	Yes	
Digital Signatures (complies with data file integrity requirements)	Yes	Yes	
Comply with NADCAP AMS2750E, CFR21 Part 11 and JACHO			
Data Log requirements	Yes	Yes	
Ramp Soak Profile Capability			
Profile Status View	Yes	Yes	
Profile: Max # of Programs	unlimited	unlimited	
Profile Naming (16 alphanumeric characters)	Yes	Yes	
Profile: Max # of Steps per Program	64	99	
Profile Sep "jump to" logic (within the profile)	Yes	Yes	
Event Outputs (varies by model & configuration, 0 to 32)	Yes	Yes	
Profile Type: Step Time or Ramp Rate (RR) (RR single loop only)	Yes	No (Step Time only)	
Profile Step Time: Adjust Step Time with Profile Active	No	Yes	
Digital Input: Profile Start, Hold, Continue, End and Step Change	Yes (note #6)	Yes (not Step Change)	
Profile Guaranteed Soak configurable by Step	Yes	Yes	
Profile "Wait For" Loop/Monitor Temperature by Step	No (note #7)	Yes	
Profile "Wait For" Digital Input by Step	No (note #8)	Yes	
Profile "Delta" SP logic by Step (note #9)	No	Yes	
Profile Start Delayed (Hours & Minutes)	No	Yes	
Profile Start by Day of Week and Time or Time and Date	No	Yes	
Profile Power Recovery Logic (note #10)	Yes	Yes	
Profile End Output (Configurable to enable relay at end of Profile)	Yes	Yes	
Profile End Configurable Logic (note #11 LC, note #12 CM)	Yes	Yes	
Countdown Batch Timer Function			
Countdown Digital Batch Timer enabling a relay (note #13)	Yes	No	
Communications - Local Area Network (LAN)			
LAN Ethernet (note #14 lists LAN features)	Yes	Yes	
email & FTP ports fixed (25 & 21) or configurable	Configurable	Fixed 25/21	
USB (file transfer & config import-export)	Yes	Yes	
Serial Modbus RS485 RTU (slave)	Yes	Yes	
Serial Modbus RS232 (bar code scanner input only)	No	optional	
Compatible with EnVision Software (Serial Modbus RS485)	Yes	Yes	
Modbus Register layout configurable as F4/D	Yes	No	
			<p>Note 1: Digital Inputs (DI) - nCompass LC: The LC offers 1 DI that may be configured as one of the following: Profile Run, Profile Hold, Profile Run/Hold, Profile Step Advance, Profile Abort and PID group #2.</p> <p>Note 2: Digital Inputs (DI) - nCompass CM: Up to 16 DI configurable as Alarm Input, input to enable a DO, Profile functions (Start, Stop, Hold and End), Digital Output and/or Input Defeat (specific or group of DO and/or DI), all with time delays. DO are independent of loop controls.</p> <p>Note 3: Digital Outputs (DO) - nCompass LC: Total 4 control outputs per B42. Output #1 is PID, Output #2 configurable as PID cool or as with Output #3 and #4, as alarm or event outputs. Alarms are specific to B42 board while profile events may be on #1 or #2 dual loop PID B42 boards.</p> <p>Note 4: Digital Outputs (DO) - nCompass CM: The CM utilizes separate PID loop controls whose outputs are not components of the CM. The CM offers up to 32 DO configurable as Loop or Monitor alarms, DI alarms, Event outputs used in Profiles, Event output for profile status (run, hold & step change), Outputs based on DI, all with configurable cycle times to pulse, time delay to turn DO off and DO with counter & alarm messages.</p> <p>Note 5: When a data log file is auto started with a profile start: The log file name is the profile name appended by the start date/time to the second.</p> <p>Note 6: Digital Input Profile Start - nCompass LC : The B2 board offers one DI that may be configured for one of several functions. Functions include Profile Run, Profile Hold, Profile Run/Hold, Step Advance, Profile Abort, PID Selection #1 or #2.</p> <p>Note 7: Profile Step "Wait For" Loop/Monitor Temp - nCompass CM: Step time will not start until the selected loop /monitor pint achieves a target SP is standard on the nCompass CM. nCompass LC B42 Event Input allows for Run/Hold "wait for" logic but is not configurable from within the profile. (see note 5 for list of B42 EI functions.)</p> <p>Note 8: Step "Wait For" on Digital Input (DI): Step time will not begin until a specific DI is closed; standard on nCompass CM. nCompass LC requires B42 Event Input configuration for Run/Hold logic but is not configurable from within the profile. (see note 5 for list of B42 EI functions.)</p> <p>Note 9: "Delta Setpoint" Profile logic - nCompass CM: The Delta offset SP, added to the configured highest / lowest loop or monitor PV (configurable as high or low) is sent to target loop control(s).</p> <p>Note 10: Profile Power Recovery Logic: nCompass CM configurable as Off (profile off), Hold, Continue (from last SP), Restart or Resume. nCompass LC configurable as Continue from last SP, current PV or go to Static Mode.</p> <p>Note 11: Profile End Configurable Logic - nCompass LC: Current (static) control setpoint used prior to profile start (including event status) or Final SP of Profile (all events off).</p> <p>Note 12: Profile End Configurable Logic - nCompass CM: Final SP of Profile with all Events active as configured.</p> <p>Note 13: Countdown Batch Timer Functions - nCompass LC : When enabled the Digital Count Down timer on the Single Loop View offers easy to use batch timer controlling an event relay. When the timer is active the relay is closed and opens at the end of the set time.</p> <p>Note 14: LAN Features: email/SMS text on alarm, FTP file transfer, Remote Access (VNC), Web Page (view only), send emails and time server synchronization. (email and FTP outgoing port numbers are configurable)</p>