This worksheet is being provided to ensure that the AccuLoad III-S or N4 hardware contains enough I/O for the application. This sheet should be filled out for every application. The AccuLoad III-S and N4 hardware is capable of controlling one or two arms in straight arm loading applications, and up to six products per arm in sequential blending and/or ratio blending applications. When configured for ratio blending, the AccuLoad III-S and N4 are capable of controlling three product streams (6 product streams: Rev 10.08 and above). Contact your local Smith representative if you have any questions about this worksheet.

Pulse Inputs	**Circle Number Required**	
Product Meter Pulses	1 2 3 4 5 6	(For dual pulse meters, 2 per meter)
Density	1 2 3	
Additive Meter	1 2 3 4	
Flow Controlled Additive Meter	1 2 3 4	For dual pulse meters, 2 per meter)
Total	6 or less	

Note: *AICB boards can be added to provide additional pulse inputs for additive meters. The AICB board adds 10 additional additive meter inputs. For the AccuLoad III-N4 hardware, the AICB board must be mounted in a remote housing. . Flow Controlled Additives must be wired to the PIB board.*

Analog Inputs	**Circle Number Required**
RTD (Temperature)	1 2 3 4 5 6
4-20 mA (Temperature, Density, Pressure, General)	1 2 3 4 5 6
1-5 Vdc (Temperature, Density, Pressure, General)	1 2 3 4 5 6
Analog Outputs	
4-20 mA (Valve Control, Flow Rate, General)	1 2 3 4 5 6
1-5 Vdc (Valve Control, Flow Rate, General)	1 2 3 4 5 6
Total Analog Inputs and Outputs	6 or less

AC Digital Inputs	**Circle Number Required**
Security	1 2
Arm Permissive (Maximum 2 per arm)	1 2 3 4
Second High Flow Rate (1 per arm)	1 2
Remote Start Arm	1 2
Remote Stop	1
Remote Stop Arm	1 2
Transaction Reset (1 per arm)	1 2
General Purpose	1 2 3 4 5
Print Tray Switch	1 2
Block Valve Feedback	1 2 3 4 5
Piston Injector Feedback	1 2 3 4 5
System Permissive	1 2 3
Swing Arm Side A	1 2
Swing Arm Side B	1 2
DE Head Stop Flow	1 2
DE Head Low Flow	1 2
DE Head High Flow	1 2
Bay A Permissive	1 2
Bay B Permissive	1 2
Meter Injector Prove	1
Total	5 or less

DC Digital Inputs	**Circle Number Required**
Security	1 2
Arm Permissive (Maximum 2 per arm)	1 2 3 4
Second High Flow Rate (1 per arm)	1 2
Remote Start Arm	1 2
Remote Stop	1
Remote Stop Arm	1 2
Transaction Reset (1 per arm)	1 2
General Purpose	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Print Tray Switch (1 per arm)	1 2
Block Valve Feedback	1 2 3 4 5 6 7 8 9 10 11 12
Piston Injector Feedback	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
System Permissive	1 2 3
Swing Arm Side A	1 2
Swing Arm Side B	1 2
DE Head Stop Flow	1 2
DE Head Low Flow	1 2
DE Head High Flow	1 2
Bay A Permissive	1 2
Bay B Permissive	1 2
Meter Injector Prove	1
Total	6 or less Standard 16 or less with optional AICB board (AccuLoad III-N4 AICB board must be mounted in a remote housing)

AC Digital Outputs	**Circle Number Required**
Product Pumps (Sequential Blending, 1 per arm)	1 2 3 4 5 6
Upstream Solenoids [2]	1 2 3 4 5 6
Downstream Solenoids [2]	1 2 3 4 5 6
Alarm Relay	1 2
General Purpose	1 2 3 4 5 6 7 8 9 10 → 51
Block Valve	1 2 3 4 5 6 7 8 9 10 11 12
Stop Relay (1 per arm)	1 2
Additive Pumps [1]	1 2 3 4 5 6 7 8 9 10 → 24
Piston Injectors	1 2 3 4 5 6 7 8 9 10 → 24
Metered Injectors (Solenoids) [1]	1 2 3 4
Shared Additive Solenoids	1 2 3 4 5 6 7 8 9 10 11
Shared Additive Flush	1 2 3 4
Flow Controlled Additive Upstream Solenoid [2]	1 2 3 4
Flow Controlled Additive Down-stream Solenoid [2]	1 2 3 4
Total	11 or less Standard 31 or less with optional AICB board 51 or less with optional 2nd AICB board (AccuLoad III-N4 AICB board must be mounted in a remote housing)

1 *Additive pumps and solenoid outputs are fixed on the AICB when more than 4 metered additives are programmed. It is recommended that if the AICB board is required for additional metered additives, that all additives be connected to the AICB board.*

2 *Upstream and downstream solenoids should be programmed and wired on EAAI AccuLoad board.*

DC Digital Outputs	**Circle Number Required**		
Product Pumps (Sequential Blending, 1 per arm)	1	2	3
Upstream Solenoids [2]	1	2	3
Downstream Solenoids [2]	1	2	3
Alarm Relay	1	2	
General Purpose	1	2	3
Block Valve	1	2	3
Stop Relay (1 per arm)	1	2	
Additive Pumps [3]	1	2	3
Piston Injectors	1	2	3
Metered Injectors (Solenoids) [3]	1	2	3
Shared Additive Solenoids	1	2	3
Shared Additive Flush	1	2	3
Flow Controlled Additive Upstream Solenoid [2]	1	2	3
Flow Controlled Additive Down-stream Solenoid [2]	1	2	3
Total	3 or less		

2 *Upstream and downstream solenoids should be programmed and wired on EAAI AccuLoad board.*

3 *Additive pumps and solenoid outputs are fixed on the AICB when more than 4 metered additives are programmed.*

AccuLoad III-S Model Number (Refer to Specification Sheet SS06036)

ALIII-S-XP - _____ - A XXXXX _____ - X _____

ALX1	Digit 1: # of RTDs	A – AICB Board
ALX2	Digit 2: # of 4-20 mA inputs	
	Digit 3: # of 4-20 mA outputs	
	Digit 4: # of 1-5 Vdc inputs	
	Digit 5: # of 1-5 Vdc outputs	

The optional AICB can be mounted inside the AccuLoadIII® or in a remote enclosure. It is recommended that it be mounted at or near the additive injector panel to save on wiring costs. All that is needed back to the AccuLoad III is +24 Vdc power and a communication cable. Consideration should be given to mounting the AICB in the remote housing any time the additive panel is a considerable distance away from the AccuLoad. The cost of running +24 Vdc power and one communication wire versus the remote housing and all the additive wiring should be considered.

AccuLoad III-N4 Model Number (Refer to Specification Sheet SS06041)

ALIII-N4 - _____ - ____ - _____ - 0 - A XXXXX _____ - _____

ALX1	0	0	0	Digit 1: # of RTDs	0 – 10 (fuse holders)
ALX2	1*	1**	1***	Digit 2: # of 4-20 mA inputs	
			2	Digit 3: # of 4-20 mA outputs	
				Digit 4: # of 1-5 Vdc inputs	
				Digit 5: # of 1-5 Vdc outputs	

* Stop Button. 0 = None; 1 = 120/230 Volts AC
** Indicator Lights. 0 = None; 1 = 120 Volts AC

***Hardware Options. 0 = None; 1 = Card Reader; 2 = Captive Card Reader

The AccuLoad III-N4 hardware can be used in conjunction with the AICB board, but these additional boards must be mounted in remote housing and +24 Vdc power and a communication wire run between the AccuLoad and the remote boards.

If your application exceeds the number of I/O points available on the AccuLoad III-S or N4 hardware, refer to the worksheet for the AccuLoad III-Q hardware (AB06049) or the AccuLoad III-SA hardware (AB06068). It may be a better fit for your application.

Revisions included in AB06050 Issue/Rev.0.2 (9/07):

- Page 1: Added 6 product streams to opening paragraph, omitted #3 in density field on pulse inputs chart
- Page 2: Omitted #2 in meter injector prove field on AC digital inputs chart
- Page 3: Omitted #2 in meter injector prove field on DC digital inputs chart
- Page 4: Added through 51 in general purpose field, through 24 in additive pumps and meter injectors fields, omitted #'s 12, 13, and 14 in shared additive field, added note in total field
- Page 5: Omitted note in total field
- Page 6: Edited first paragraph

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

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