



P300
Battery & Voltage Drop
Calculations

Project Name: Standby Hours:
 Alarm Mins:
 Installed By: Batt Efficiency:
 Designed By: SLC Type:
 Date: NAC Source Voltage:

Model #: P300

Max Panel Current (amps): 5

Panel ID:

User assumes all responsibility to ensure the quantities and current draw values in this worksheet are accurate prior to submittal.

Location:

Qty	FACP Part #	Description	Standby (amps)		Alarm (amps)	
			Each	Total	Each	Total
1	P300	Analog Addressable FACP	0.130	0.130	0.220	0.220
			Panel Standby:	0.130	Panel Alarm:	0.220

P-LINK (RS-485)			Standby		Alarm	
1	UD-1000	DACT	0.016	0.016	0.023	0.023
	RA-6075	LCD Annunciator	0.020		0.025	
1	RA-6500	LCD Annunciator	0.020	0.020	0.050	0.050
	LED-16	LED Annunciator	0.025		0.025	
	LED-16	LED Annunciator LED Power*	0.015		0.210	
1	CA-6075	Class A Module	0.012	0.012	0.044	0.044
	PSN-1000(E)	Power Expander	0.015		0.015	
	SLCE-127	SLC Expander (2 Max)	0.060		0.060	
	RLY-5	Relay Expander	0.025		0.035	
	RLY-5	Relay Expander Power*	0.010		0.135	
	DRV-50	LED Driver Module	0.025		0.025	
	DRV-50	LED Driver Module LED Power*	0.010		0.215	
	FCB-1000	Fire Communications Bridge	0.025		0.025	
	FIB-1000	Fiber Interface Board	0.030		0.030	
	SPG-1000	Serial Parallel Gateway	0.040		0.040	

(Maximum current draw on P-Link limited to 1 Amp)

P-LINK Standby: 0.048 P-LINK Alarm: 0.117

**Only enter quantity if PLINK power is being used to power devices*

SLC Devices			Standby		Alarm	
28	PSA	Analog Photo Smoke	0.000325	0.009100	0.000325	0.009100
	PSHA	Analog Photo Smoke/Heat	0.000325		0.000325	
5	RHA	Analog Rate of Rise Heat	0.000325	0.001625	0.000325	0.001625
	FHA	Analog Fixed Temp Heat	0.000325		0.000325	
11	APS-SA/APS-DA	Addressable Pull Station Single/Dual Action	0.000325	0.003575	0.000325	0.003575
2	MCM	Mini Contact Input Module	0.000325	0.000650	0.000325	0.000650
	SCM-4	Single Contact Input Module	0.000325		0.001000	
3	DCM-4	Dual Contact Input Module	0.000325	0.000975	0.001000	0.003000
4	TRM-4	Twin Relay Output Module	0.000325	0.001300	0.001000	0.004000
	CIZM-4 *	Conventional Zone Input Mod	0.000325		0.001000	
	MOM-4 *	Monitored Output Module	0.000325		0.001000	
	ARB *	Detector Base w/Relay	0.000325		0.000325	
	ASB *	Detector Base w/Sounder	0.000325		0.000325	
	SCI **	Short Circuit Isolator (Class A)	0.000325		0.002340	
	AIB **	Detector Base w/Isolator (Class A)	0.000325		0.002340	
	SCI/AIB Class B **	Current Draw from Install Manual	<input type="text" value=""/>		<input type="text" value=""/>	

1 SLC Loop Alarm LED Current 0.000000 0.000000 0.027000 0.027000

* Requires Aux Power (Configure Below) **SLC Standby: 0.017225 SLC Alarm: 0.048950**

** See the installation manual for special considerations when installing AIB, SCI devices on Class B loops.

NAC Circuits (See NAC Configuration below)			Standby (amps)	Alarm (amps)
Ckt	Use	Description	Total	Total
1			0.00000	3.00000
2			0.00000	2.00000
			NAC Standby:	NAC Alarm:
			0.00000	5.00000

I/O Circuits (See I/O Configuration below)			Standby (amps)	Alarm (amps)
Ckt	Use	Description	Total	Total
1			0.00000	0.00000
2			0.00000	0.00000
			I/O Standby:	I/O Alarm:
			0.00000	0.00000

Battery Calculation Summary		Standby (amps)	Alarm (amps)
	Panel Current:	0.13000	0.22000
	P-Link Current:	0.04800	0.11700
	SLC Device Current:	0.01723	0.04895
	NAC Circuit Current:	0.00000	5.00000
	I/O Circuit Current:	0.00000	0.00000
	Total Standby:	0.195225	Total Alarm:
	Standby Hours:	24	Alarm Mins:
	AH Required:	4.69	AH Required:
			0.45
	Total Combined Standby & Alarm AmpHours Required:		5.14
			Efficiency Factor:
			80%
	Required Battery AmpHours:		6.43
	Battery AmpHours Provided:		

SLC Loop Type: Class B
Point Capacity Needed: 56
Point Capacity Actual: 127

Note: The cabinet will house two 8 AH or 18 AH batteries. The charging circuit is rated for up to two 55 AH batteries.

NAC 1 MAX Circuit Current (amps): 3 Source Voltage Used (VDC): 20.4

Usage: Description:

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amp)	Volts @ EOL	Min Volts Req'd
#14 Solid	2.5		0.000	3.000	20.40	16

Qty	Lookup Type	Circuit Devices Desc	Standby (amps)		Alarm (amps)	
			Each	Total	Each	Total
		User can add devices on the fly to these bottom 5 rows (No lookup function)				
1	Horn/strobes	Total	0.000000	0.000000	3.000000	3.000000
Total Standby:			0.00000		Total Alarm:	3.00000

NAC 2 MAX Circuit Current (amps): 3 Source Voltage Used (VDC): 20.4

Usage: Description:

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amp)	Volts @ EOL	Min Volts Req'd
#14 Solid	2.5		0.000	2.000	20.40	16

Qty	Lookup Type	Circuit Devices Desc	Standby (amps)		Alarm (amps)	
			Each	Total	Each	Total
		User can add devices on the fly to these bottom 5 rows (No lookup function)				
1	Horn/strobes	Total	0.000000	0.000000	2.000000	2.000000
Total Standby:			0.00000		Total Alarm:	2.00000

I/O 1 MAX Circuit Current (amps): 1 Source Voltage Used (VDC): 20.4

Usage: Description:

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amp)	Volts @ EOL	Min Volts Req'd
#14 Solid	2.5		0.000	0.000	20.40	16

Qty	Lookup Type	Circuit Devices Desc	Standby (amps)		Alarm (amps)	
			Each	Total	Each	Total
		User can add devices on the fly to these bottom 5 rows (No lookup function)				
Total Standby:				0.00000	Total Alarm:	0.00000

I/O 2 MAX Circuit Current (amps): 1 Source Voltage Used (VDC): 20.4

Usage: Description:

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amp)	Volts @ EOL	Min Volts Req'd
#14 Solid	2.5		0.000	0.000	20.40	16

Qty	Lookup Type	Circuit Devices Desc	Standby (amps)		Alarm (amps)	
			Each	Total	Each	Total
		User can add devices on the fly to these bottom 5 rows (No lookup function)				
Total Standby:				0.00000	Total Alarm:	0.00000