PLC I/O COUNT AND MODULE CALCULATOR

Project: Boiler 3 PLC	Calc no: CALC PLC 001 Rev: 0

Yellow cells: enter data. Grey cells: calculated automatically. Free template from instrumentationblog.in

Design data			
Spare (%)	20	**AI channels per module**	8
AO channels per module	8	**DI channels per module**	16
DO channels per module	16		

Device types

Device type	Signals	AI each	AO each	DI each	DO each	Quantity	Total points	Remarks
Pressure transmitter	AI	1	0	0	0	24	24	
Temperature transmitter	AI	1	0	0	0	18	18	
Control valve	AO	0	1	0	0	12	12	
On off valve (2 limit switches + solenoid)	DI/DO	0	0	2	1	10	30	
Motor (run, trip, start, stop)	DI/DO	0	0	2	2	8	32	
Level switch	DI	0	0	1	0	6	6	
AI total / with spare / modules							**42 / 51 / 7**	
AO total / with spare / modules							**12 / 15 / 2**	
DI total / with spare / modules							**42 / 51 / 4**	
DO total / with spare / modules							**26 / 32 / 2**	
Total points							**122**	

Points per device depend on your typicals; edit them to match. Safety and redundant I/O may need separate modules. Group by marshalling and cabinet later in the IO list.

Prepared by	Checked by
Name:	Name:
Signature:	Signature:
Date:	Date: