



IPS controller 4000

Integrated pumping
system for variable
secondary application

Data points

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BAS DATA POINTS - MODBUS RTU

BUILDING AUTOMATION SYSTEM MODBUS RTU

IPS 4000 Modbus RTU - Communication Interface Rev 2017061

MODBUS ADDRESS	SIGNAL TYPE	READ/WRITE	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
10002	Digital	R	General Alarm	Ok	Alarm	Toggle
10003	Digital	R	Reserved			
10004	Digital	R	Pump Alarm	Ok	Alarm	Toggle
10005	Digital	R	Pump 1 in Hand mode		Hand	Toggle
10006	Digital	R	Pump 1 in Off mode		Off	Toggle
10007	Digital	R	Pump 1 in Auto mode		Auto	Toggle
10008	Digital	R	Pump 2 in Hand mode		Hand	Toggle
10009	Digital	R	Pump 2 in Off mode		Off	Toggle
10010	Digital	R	Pump 2 in Auto mode		Auto	Toggle
10011	Digital	R	Pump 3 in Hand mode		Hand	Toggle
10012	Digital	R	Pump 3 in Off mode		Off	Toggle
10013	Digital	R	Pump 3 in Auto mode		Auto	Toggle
10014	Digital	R	Pump 4 in Hand mode		Hand	Toggle
10015	Digital	R	Pump 4 in Off mode		Off	Toggle
10016	Digital	R	Pump 4 in Auto mode		Auto	Toggle
10017	Digital	R	Pump 5 in Hand mode		Hand	Toggle
10018	Digital	R	Pump 5 in Off mode		Off	Toggle
10019	Digital	R	Pump 5 in Auto mode		Auto	Toggle
10020	Digital	R	Pump 6 in Hand mode		Hand	Toggle
10021	Digital	R	Pump 6 in Off mode		Off	Toggle
10022	Digital	R	Pump 6 in Auto mode		Auto	Toggle
10023	Digital	R	Reserved			
10024	Digital	R	Reserved			
10025	Digital	R	Reserved			
10026	Digital	R	Reserved			
10027	Digital	R	Reserved			
10028	Digital	R	Reserved			
10029	Digital	R	Reserved			
10030	Digital	R	Reserved			
10031	Digital	R	Reserved			
10032	Digital	R	Reserved			
10033	Digital	R	Reserved			
10034	Digital	R	Reserved			
10035	Digital	R	Pump 1 Run Feedback	Stopped	Running	Toggle
10036	Digital	R	Pump 2 Run Feedback	Stopped	Running	Toggle
10037	Digital	R	Pump 3 Run Feedback	Stopped	Running	Toggle
10038	Digital	R	Pump 4 Run Feedback	Stopped	Running	Toggle
10039	Digital	R	Pump 5 Run Feedback	Stopped	Running	Toggle
10040	Digital	R	Pump 6 Run Feedback	Stopped	Running	Toggle
10041	Digital	R	Reserved			
10042	Digital	R	Reserved			
10043	Digital	R	Reserved			
10044	Digital	R	Reserved			
10045	Digital	R	Temperature Transmitter Failed	Ok	Alarm	Toggle
10046	Digital	R	EOC DP Transmitter Failed	Ok	Alarm	Toggle

MODBUS ADDRESS	SIGNAL TYPE	READ/WRITE	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
10047	Digital	R	EOC Flow Transmitter Failed	Ok	Alarm	Toggle
10048	Digital	R	Reserved			
10049	Digital	R	Reserved			
10050	Digital	R	All Zones DP Transmitters Failed	Ok	Alarm	Toggle
10051	Digital	R	Zone 1 DP Transmitter Failed	Ok	Alarm	Toggle
10052	Digital	R	Zone 2 DP Transmitter Failed	Ok	Alarm	Toggle
10053	Digital	R	Zone 3 DP Transmitter Failed	Ok	Alarm	Toggle
10054	Digital	R	Zone 4 DP Transmitter Failed	Ok	Alarm	Toggle
10055	Digital	R	Zone 5 DP Transmitter Failed	Ok	Alarm	Toggle
10056	Digital	R	Zone 6 DP Transmitter Failed	Ok	Alarm	Toggle
10057	Digital	R	Zone 7 DP Transmitter Failed	Ok	Alarm	Toggle
10058	Digital	R	Zone 8 DP Transmitter Failed	Ok	Alarm	Toggle
10059	Digital	R	Zone 9 DP Transmitter Failed	Ok	Alarm	Toggle
10060	Digital	R	Zone 10 DP Transmitter Failed	Ok	Alarm	Toggle
10061	Digital	R	Zone 11 DP Transmitter Failed	Ok	Alarm	Toggle
10062	Digital	R	Zone 12 DP Transmitter Failed	Ok	Alarm	Toggle
10063	Digital	R	Reserved			
10064	Digital	R	Reserved			
10065	Digital	R	Reserved			
10066	Digital	R	Reserved			
10067	Digital	R	Reserved			
10068	Digital	R	Reserved			
10069	Digital	R	Pump 1 Alarm	Ok	Alarm	Toggle
10070	Digital	R	Pump 2 Alarm	Ok	Alarm	Toggle
10071	Digital	R	Pump 3 Alarm	Ok	Alarm	Toggle
10072	Digital	R	Pump 4 Alarm	Ok	Alarm	Toggle
10073	Digital	R	Pump 5 Alarm	Ok	Alarm	Toggle
10074	Digital	R	Pump 6 Alarm	Ok	Alarm	Toggle
10075	Digital	R	Reserved			
10076	Digital	R	Reserved			
10077	Digital	R	Reserved			
10078	Digital	R	Reserved			
10079	Digital	R	Pump 1 Run feedback Alarm	Ok	Alarm	Toggle
10080	Digital	R	Pump 2 Run feedback Alarm	Ok	Alarm	Toggle
10081	Digital	R	Pump 3 Run feedback Alarm	Ok	Alarm	Toggle
10082	Digital	R	Pump 4 Run feedback Alarm	Ok	Alarm	Toggle
10083	Digital	R	Pump 5 Run feedback Alarm	Ok	Alarm	Toggle
10084	Digital	R	Pump 6 Run feedback Alarm	Ok	Alarm	Toggle
10085	Digital	R	Reserved			
10086	Digital	R	Reserved			
10087	Digital	R	Reserved			
10088	Digital	R	Reserved			
10089	Digital	R	Pump 1 Drive Fault	Ok	Alarm	Toggle
10090	Digital	R	Pump 2 Drive Fault	Ok	Alarm	Toggle
10091	Digital	R	Pump 3 Drive Fault	Ok	Alarm	Toggle
10092	Digital	R	Pump 4 Drive Fault	Ok	Alarm	Toggle
10093	Digital	R	Pump 5 Drive Fault	Ok	Alarm	Toggle
10094	Digital	R	Pump 6 Drive Fault	Ok	Alarm	Toggle
10095	Digital	R	Reserved			
10096	Digital	R	Reserved			

MODBUS ADDRESS	SIGNAL TYPE	READ/WRITE	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
10097	Digital	R	Reserved			
10098	Digital	R	Reserved			
10099	Digital	R	Pump 1 No Flow Alarm	Ok	Alarm	Toggle
10100	Digital	R	Pump 2 No Flow Alarm	Ok	Alarm	Toggle
10101	Digital	R	Pump 3 No Flow Alarm	Ok	Alarm	Toggle
10102	Digital	R	Pump 4 No Flow Alarm	Ok	Alarm	Toggle
10103	Digital	R	Pump 5 No Flow Alarm	Ok	Alarm	Toggle
10104	Digital	R	Pump 6 No Flow Alarm	Ok	Alarm	Toggle
10105	Digital	R	Reserved			
10106	Digital	R	Reserved			
10107	Digital	R	Reserved			
10108	Digital	R	Reserved			
10109	Digital	R	Auto Bypass On			
10110	Digital	R	Pump 1 Bypass On	Off	On	Toggle
10111	Digital	R	Pump 2 Bypass On	Off	On	Toggle
10112	Digital	R	Pump 3 Bypass On	Off	On	Toggle
10113	Digital	R	Pump 4 Bypass On	Off	On	Toggle
10114	Digital	R	Pump 5 Bypass On	Off	On	Toggle
10115	Digital	R	Pump 6 Bypass On	Off	On	Toggle
10116	Digital	R	Reserved			
10117	Digital	R	Reserved			
10118	Digital	R	Reserved			
10119	Digital	R	Reserved			
10120	Digital	R	Reserved			
10121	Digital	R	IPS On Status	Off	On	Toggle
10122	Digital	R	Reserved			
10123	Digital	R	Reserved			
10124	Digital	R	Reserved			
10125	Digital	R	Reserved			
10126	Digital	R	Reserved			
10127	Digital	R	Reserved			
10128	Digital	R	Reserved			
10129	Digital	R	Reserved			
10130	Digital	R	Reserved			
10131	Digital	R	Reserved			
10132	Digital	R	Reserved			
10133	Digital	R	Reserved			
10134	Digital	R	Reserved			
10135	Digital	R	Reserved			
10136	Digital	R	Reserved			
10137	Digital	R	Reserved			
10138	Digital	R	Reserved			
10139	Digital	R	Reserved			

MODBUS ADDRESS	SIGNAL TYPE	READ/WRITE	DESCRIPTION	RANGE	REPRESENT	UNITS
141	Digital	R/W	Remote Start	Stop	Start	Toggle
142	Digital	R/W	Set Pump 1 Hand		Hand	Momentary
143	Digital	R/W	Set Pump 1 Off		Off	Momentary
144	Digital	R/W	Set Pump 1 Auto		Auto	Momentary
145	Digital	R/W	Set Pump 2 Hand		Hand	Momentary
146	Digital	R/W	Set Pump 2 Off		Off	Momentary
147	Digital	R/W	Set Pump 2 Auto		Auto	Momentary
148	Digital	R/W	Set Pump 3 Hand		Hand	Momentary
149	Digital	R/W	Set Pump 3 Off		Off	Momentary
150	Digital	R/W	Set Pump 3 Auto		Auto	Momentary
151	Digital	R/W	Set Pump 4 Hand		Hand	Momentary
152	Digital	R/W	Set Pump 4 Off		Off	Momentary
153	Digital	R/W	Set Pump 4 Auto		Auto	Momentary
154	Digital	R/W	Set Pump 5 Hand		Hand	Momentary
155	Digital	R/W	Set Pump 5 Off		Off	Momentary
156	Digital	R/W	Set Pump 5 Auto		Auto	Momentary
157	Digital	R/W	Set Pump 6 Hand		Hand	Momentary
158	Digital	R/W	Set Pump 6 Off		Off	Momentary
159	Digital	R/W	Set Pump 6 Auto		Auto	Momentary
160	Digital	R/W	Auto Bypass Reset	N/A	Reset	Toggle
161	Digital	R/W	Alarm Reset	N/A	Reset	Toggle
162	Digital	R/W	Reserved			
163	Digital	R/W	Reserved			
164	Digital	R/W	Reserved			
165	Digital	R/W	Reserved			
166	Digital	R/W	Reserved			
167	Digital	R/W	Reserved			
168	Digital	R/W	Reserved			
169	Digital	R/W	Reserved			
170	Digital	R/W	Reserved			
171	Digital	R/W	Reserved			
172	Digital	R/W	Reserved			
173	Digital	R/W	Reserved			

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MODBUS ADDRESS	SIGNAL TYPE	READ/WRITE	DESCRIPTION	RANGE	REPRESENT	UNITS
30002	Analog	R	Active Zone Error	-9999 to 9999	-999.9 to 999.9	
30003	Analog	R	Active Zone PV			
30004	Analog	R	Active Zone SP			
30005	Analog	R	Zone 1 Value			
30006	Analog	R	Zone 2 Value			
30007	Analog	R	Zone 3 Value			
30008	Analog	R	Zone 4 Value			
30009	Analog	R	Zone 5 Value	0 to 9999	0.0 to 999.9	psi, ft, kPA, m, °F or °C
30010	Analog	R	Zone 6 Value			
30011	Analog	R	Zone 7 Value			
30012	Analog	R	Zone 8 Value			
30013	Analog	R	Zone 9 Value			
30014	Analog	R	Zone 10 Value			
30015	Analog	R	Zone 11 Value			
30016	Analog	R	Zone 12 Value			
30017	Analog	R	Reserved			
30018	Analog	R	Reserved			
30019	Analog	R	Reserved			
30020	Analog	R	Reserved			
30021	Analog	R	Reserved			
30022	Analog	R	Reserved			
30023	Analog	R	Zone 1 Error			
30024	Analog	R	Zone 2 Error			
30025	Analog	R	Zone 3 Error			
30026	Analog	R	Zone 4 Error			
30027	Analog	R	Zone 5 Error			
30028	Analog	R	Zone 6 Error			
30029	Analog	R	Zone 7 Error	-9999 to 9999	-999.9 to 999.9	
30030	Analog	R	Zone 8 Error			
30031	Analog	R	Zone 9 Error			
30032	Analog	R	Zone 10 Error			
30033	Analog	R	Zone 11 Error			
30034	Analog	R	Zone 12 Error			
30035	Analog	R	Reserved			
30036	Analog	R	Reserved			
30037	Analog	R	Reserved			
30038	Analog	R	Reserved			
30039	Analog	R	Reserved			
30040	Analog	R	Reserved			
30041	Analog	R	Pump 1 Speed			
30042	Analog	R	Pump 2 Speed			
30043	Analog	R	Pump 3 Speed	0 to 1000	0.0 to 100.0	%
30044	Analog	R	Pump 4 Speed			
30045	Analog	R	Pump 5 Speed			
30046	Analog	R	Pump 6 Speed			
30047	Analog	R	Reserved			
30048	Analog	R	Reserved			
30049	Analog	R	Reserved			
30050	Analog	R	Reserved			
30051	Analog	R	Temp Sensor PV	0 to 2120	0.0 to 212.0	°F or °C

MODBUS ADDRESS	SIGNAL TYPE	READ/WRITE	DESCRIPTION	RANGE	REPRESENT	UNITS
30052	Analog	R	Eoc Sensor Value	0 to 32000	0 to 32000	gpm
30053	Analog	R	Total Head	0 to 32767	0 to 3276.7	ft, psi, kPa
30054	Analog	R	Pump 1 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
30055	Analog	R	Pump 1 Drive Volt ac			VAC
30056	Analog	R	Pump 1 Drive Power			kW
30057	Analog	R	Pump 1 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
30058	Analog	R	Pump 2 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
30059	Analog	R	Pump 2 Drive Volt ac			VAC
30060	Analog	R	Pump 2 Drive Power			kW
30061	Analog	R	Pump 2 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
30062	Analog	R	Pump 3 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
30063	Analog	R	Pump 3 Drive Volt ac			VAC
30064	Analog	R	Pump 3 Drive Power			kW
30065	Analog	R	Pump 3 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
30066	Analog	R	Pump 4 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
30067	Analog	R	Pump 4 Drive Volt ac			VAC
30068	Analog	R	Pump 4 Drive Power			kW
30069	Analog	R	Pump 4 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
30070	Analog	R	Pump 5 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
30071	Analog	R	Pump 5 Drive Volt ac			VAC
30072	Analog	R	Pump 5 Drive Power			kW
30073	Analog	R	Pump 5 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
30074	Analog	R	Pump 6 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
30075	Analog	R	Pump 6 Drive Volt ac			VAC
30076	Analog	R	Pump 6 Drive Power			kW
30077	Analog	R	Pump 6 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
30078	Analog	R	Reserved			
30079	Analog	R	Reserved			
30080	Analog	R	Pump 1 Drive KWH	0 to 10000	0.0 to 1000.0	KWH
30081	Analog	R	Pump 2 Drive KWH			
30082	Analog	R	Pump 3 Drive KWH			
30083	Analog	R	Pump 4 Drive KWH			
30084	Analog	R	Pump 5 Drive KWH			
30085	Analog	R	Pump 6 Drive KWH			
30086	Analog	R	Reserved			
30087	Analog	R	Reserved			
30088	Analog	R	Reserved			
30089	Analog	R	Reserved			
30090	Analog	R	Reserved			
30091	Analog	R	Reserved			
30092	Analog	R	Reserved			
30093	Analog	R	Reserved			
30094	Analog	R	Pump 1 Head	0 to 32767	0.0 to 3276.7	ft, psi, kPa
30095	Analog	R	Pump 2 Head			
30096	Analog	R	Pump 3 Head			
30097	Analog	R	Pump 4 Head			
30098	Analog	R	Pump 5 Head			
30099	Analog	R	Pump 6 Head			
30100	Analog	R	Reserved			
30101	Analog	R	Reserved			

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MODBUS ADDRESS	SIGNAL TYPE	READ/WRITE	DESCRIPTION	RANGE	REPRESENT	UNITS
30102	Analog	R	Reserved			
30103	Analog	R	Reserved			
30104	Analog	R	Wire to Water Efficiency	0 to 9999	0.0 to 999.9	
40141	Analog	R/W	Zone 1 SP	0 to 9999	0.0 to 999.9	psi, ft, kPA, m, °F or °C
40142	Analog	R/W	Zone 2 SP			
40143	Analog	R/W	Zone 3 SP			
40144	Analog	R/W	Zone 4 SP			
40145	Analog	R/W	Zone 5 SP			
40146	Analog	R/W	Zone 6 SP			
40147	Analog	R/W	Zone 7 SP			
40148	Analog	R/W	Zone 8 SP			
40149	Analog	R/W	Zone 9 SP			
40150	Analog	R/W	Zone 10 SP			
40151	Analog	R/W	Zone 11 SP			
40152	Analog	R/W	Zone 12 SP			
40153	Analog	R/W	Pump 1 Hand Speed			
40154	Analog	R/W	Pump 2 Hand Speed			
40155	Analog	R/W	Pump 3 Hand Speed			
40156	Analog	R/W	Pump 4 Hand Speed			
40157	Analog	R/W	Pump 5 Hand Speed			
40158	Analog	R/W	Pump 6 Hand Speed			
40159	Analog	R/W	Max Valve Opening	0 to 100	0.0 to 100.0	%
40160	Analog	R/W	Reserved			
40161	Analog	R/W	Design Head	0 to 9999	0.0 to 999.9	ft,psi,bar
40162	Analog	R/W	Zero Flow Head			
40163	Analog	R/W	Reserved			
40164	Analog	R/W	Head BEP	0 to 9999	0.0 to 999.9	ft,psi,bar
40165	Analog	R/W	Dead Band(K)			
40166	Analog	R/W	Staging Sensor Factor	0 to 10	0 to 1.0	
40167	Analog	R/W	Summer Design Head (Future use)	0 to 9999	0.0 to 999.9	ft,psi,bar
40168	Analog	R/W	Summer Zero Flow Head (Future use)			
40169	Analog	R/W	Winter Design Head (Future use)			
40170	Analog	R/W	Winter Zero Flow Head (Future use)			
40171	Analog	R/W	Min Zero Flow Head DP SP (Future use)			
40172	Analog	R/W	BAS Zone 1 PV	0 to 9999	0.0 to 999.9	psi, ft, kPA, m, °F or °C
40173	Analog	R/W	BAS Zone 2 PV			
40174	Analog	R/W	BAS Zone 3 PV			
40175	Analog	R/W	BAS Zone 4 PV			
40176	Analog	R/W	BAS Zone 5 PV			
40177	Analog	R/W	BAS Zone 6 PV			
40178	Analog	R/W	BAS Zone 7 PV			
40179	Analog	R/W	BAS Zone 8 PV			
40180	Analog	R/W	BAS Zone 9 PV			
40181	Analog	R/W	BAS Zone 10 PV			
40182	Analog	R/W	BAS Zone 11 PV			
40183	Analog	R/W	BAS Zone 12 PV			
40184	Analog	R/W	Reserved			
40185	Analog	R/W	Reserved			
40186	Analog	R/W	Reserved			

MODBUS ADDRESS	SIGNAL TYPE	READ/WRITE	DESCRIPTION	RANGE	REPRESENT	UNITS
35003	Analog	R	Active Zone			
35004	Analog	R	End Of Curve PV	0 to 32000		gpm
35005	Analog	R	Pump 1 Flow	0 to 32767	0 to 32767	gpm, lps, m ³ /hr
35006	Analog	R	Pump 2 Flow			
35007	Analog	R	Pump 3 Flow			
35008	Analog	R	Pump 4 Flow			
35009	Analog	R	Pump 5 Flow			
35010	Analog	R	Pump 6 Flow			
35011	Analog	R	Reserved			
35012	Analog	R	Reserved			
35013	Analog	R	Reserved			
35014	Analog	R	Reserved			
35015	Analog	R	Total Flow	0 to 32767	0 to 327670	gpm
35016	Analog	R	Pump 1 Operating Run Hours	0 to 999		Hrs
35017	Analog	R	Pump 1 Operating Run KHours	0 to 32000		Hrs × 1000
35018	Analog	R	Pump 2 Operating Run Hours	0 to 999		Hrs
35019	Analog	R	Pump 2 Operating Run KHours	0 to 32000		Hrs × 1000
35020	Analog	R	Pump 3 Operating Run Hours	0 to 999		Hrs
35021	Analog	R	Pump 3 Operating Run KHours	0 to 32000		Hrs × 1000
35022	Analog	R	Pump 4 Operating Run Hours	0 to 999		Hrs
35023	Analog	R	Pump 4 Operating Run KHours	0 to 32000		Hrs × 1000
35024	Analog	R	Pump 5 Operating Run Hours	0 to 999		Hrs
35025	Analog	R	Pump 5 Operating Run KHours	0 to 32000		Hrs × 1000
35026	Analog	R	Pump 6 Operating Run Hours	0 to 999		Hrs
35027	Analog	R	Pump 6 Operating Run KHours	0 to 32000		Hrs × 1000
35028	Analog	R	Reserved			
35029	Analog	R	Reserved			
35030	Analog	R	Reserved			
35031	Analog	R	Reserved			
35032	Analog	R	Reserved			
35033	Analog	R	Reserved			
35034	Analog	R	Reserved			
35035	Analog	R	Number of Pumps Running in Auto	0-6		
35036	Analog	R	Lead Pump ID	0-6		
35037	Analog	R	Flow Design	0 to 32767	0 to 327670	gpm
35039	Analog	R	Flow BEP	0 to 32767	0 to 327670	gpm
35040	Analog	R	Number Of Pumps Configured	0 to 6		
35041	Analog	R	Lead Pump Switch Time	0-32767		Days
35042	Analog	R	Summer Design Flow (Future use)	0 to 32767	0 to 327670	gpm
35043	Analog	R	Winter Design Flow (Future use)	0 to 32767	0 to 327670	gpm
35044	Analog	R	Min Flow per Chiller (Future use)			
35045	Analog	R	Max Flow per Chiller (Future use)			
35046	Analog	R	Number of Active Chillers/Boilers (Future)			

BAS DATA POINTS - BACNET

BUILDING AUTOMATION SYSTEM - BACNET/IP, BACNET ETHERNET, OR BACNET MSTP

IPS 4000 Communication Interface Rev 2017061 (Device ID: 77000)

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
Binary Value	1	D0001	General Alarm	Ok	Alarm	Toggle
Binary Value	2	D0002	Reserved			
Binary Value	3	D0003	Pump Alarm	Ok	Alarm	Toggle
Binary Value	4	D0004	Pump 1 in Hand mode		Hand	Toggle
Binary Value	5	D0005	Pump 1 in Off mode		Off	Toggle
Binary Value	6	D0006	Pump 1 in Auto mode		Auto	Toggle
Binary Value	7	D0007	Pump 2 in Hand mode		Hand	Toggle
Binary Value	8	D0008	Pump 2 in Off mode		Off	Toggle
Binary Value	9	D0009	Pump 2 in Auto mode		Auto	Toggle
Binary Value	10	D0010	Pump 3 in Hand mode		Hand	Toggle
Binary Value	11	D0011	Pump 3 in Off mode		Off	Toggle
Binary Value	12	D0012	Pump 3 in Auto mode		Auto	Toggle
Binary Value	13	D0013	Pump 4 in Hand mode		Hand	Toggle
Binary Value	14	D0014	Pump 4 in Off mode		Off	Toggle
Binary Value	15	D0015	Pump 4 in Auto mode		Auto	Toggle
Binary Value	16	D0016	Pump 5 in Hand mode		Hand	Toggle
Binary Value	17	D0017	Pump 5 in Off mode		Off	Toggle
Binary Value	18	D0018	Pump 5 in Auto mode		Auto	Toggle
Binary Value	19	D0019	Pump 6 in Hand mode		Hand	Toggle
Binary Value	20	D0020	Pump 6 in Off mode		Off	Toggle
Binary Value	21	D0021	Pump 6 in Auto mode		Auto	Toggle
Binary Value	22	D0022	Reserved			
Binary Value	23	D0023	Reserved			
Binary Value	24	D0024	Reserved			
Binary Value	25	D0025	Reserved			
Binary Value	26	D0026	Reserved			
Binary Value	27	D0027	Reserved			
Binary Value	28	D0028	Reserved			
Binary Value	29	D0029	Reserved			
Binary Value	30	D0030	Reserved			
Binary Value	31	D0031	Reserved			
Binary Value	32	D0032	Reserved			
Binary Value	33	D0033	Reserved			
Binary Value	34	D0034	Pump 1 Run Feedback	Stopped	Running	Toggle
Binary Value	35	D0035	Pump 2 Run Feedback	Stopped	Running	Toggle
Binary Value	36	D0036	Pump 3 Run Feedback	Stopped	Running	Toggle
Binary Value	37	D0037	Pump 4 Run Feedback	Stopped	Running	Toggle
Binary Value	38	D0038	Pump 5 Run Feedback	Stopped	Running	Toggle
Binary Value	39	D0039	Pump 6 Run Feedback	Stopped	Running	Toggle
Binary Value	40	D0040	Reserved			
Binary Value	41	D0041	Reserved			
Binary Value	42	D0042	Reserved			
Binary Value	43	D0043	Reserved			
Binary Value	44	D0044	Temperature Transmitter Failed	Ok	Alarm	Toggle
Binary Value	45	D0045	Eoc DP Transmitter Failed	Ok	Alarm	Toggle

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
Binary Value	46	D0046	Eoc Flow Transmitter Failed	Ok	Alarm	Toggle
Binary Value	47	D0047	Reserved			
Binary Value	48	D0048	Reserved			
Binary Value	49	D0049	All Zones DP Transmitters Failed	Ok	Alarm	Toggle
Binary Value	50	D0050	Zone 1 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	51	D0051	Zone 2 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	52	D0052	Zone 3 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	53	D0053	Zone 4 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	54	D0054	Zone 5 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	55	D0055	Zone 6 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	56	D0056	Zone 7 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	57	D0057	Zone 8 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	58	D0058	Zone 9 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	59	D0059	Zone 10 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	60	D0060	Zone 11 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	61	D0061	Zone 12 DP Transmitter Failed	Ok	Alarm	Toggle
Binary Value	62	D0062	Reserved			
Binary Value	63	D0063	Reserved			
Binary Value	64	D0064	Reserved			
Binary Value	65	D0065	Reserved			
Binary Value	66	D0066	Reserved			
Binary Value	67	D0067	Reserved			
Binary Value	68	D0068	Pump 1 Alarm	Ok	Alarm	Toggle
Binary Value	69	D0069	Pump 2 Alarm	Ok	Alarm	Toggle
Binary Value	70	D0070	Pump 3 Alarm	Ok	Alarm	Toggle
Binary Value	71	D0071	Pump 4 Alarm	Ok	Alarm	Toggle
Binary Value	72	D0072	Pump 5 Alarm	Ok	Alarm	Toggle
Binary Value	73	D0073	Pump 6 Alarm	Ok	Alarm	Toggle
Binary Value	74	D0074	Reserved			
Binary Value	75	D0075	Reserved			
Binary Value	76	D0076	Reserved			
Binary Value	77	D0077	Reserved			
Binary Value	78	D0078	Pump 1 Run feedback Alarm	Ok	Alarm	Toggle
Binary Value	79	D0079	Pump 2 Run feedback Alarm	Ok	Alarm	Toggle
Binary Value	80	D0080	Pump 3 Run feedback Alarm	Ok	Alarm	Toggle
Binary Value	81	D0081	Pump 4 Run feedback Alarm	Ok	Alarm	Toggle
Binary Value	82	D0082	Pump 5 Run feedback Alarm	Ok	Alarm	Toggle
Binary Value	83	D0083	Pump 6 Run feedback Alarm	Ok	Alarm	Toggle
Binary Value	84	D0084	Reserved			
Binary Value	85	D0085	Reserved			
Binary Value	86	D0086	Reserved			
Binary Value	87	D0087	Reserved			
Binary Value	88	D0088	Pump 1 Drive Fault	Ok	Alarm	Toggle
Binary Value	89	D0089	Pump 2 Drive Fault	Ok	Alarm	Toggle
Binary Value	90	D0090	Pump 3 Drive Fault	Ok	Alarm	Toggle
Binary Value	91	D0091	Pump 4 Drive Fault	Ok	Alarm	Toggle
Binary Value	92	D0092	Pump 5 Drive Fault	Ok	Alarm	Toggle
Binary Value	93	D0093	Pump 6 Drive Fault	Ok	Alarm	Toggle
Binary Value	94	D0094	Reserved			
Binary Value	95	D0095	Reserved			
Binary Value	96	D0096	Reserved			

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SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
Binary Value	97	D0097	Reserved			
Binary Value	98	D0098	P1 No Flow Alarm	Ok	Alarm	Toggle
Binary Value	99	D0099	P2 No Flow Alarm	Ok	Alarm	Toggle
Binary Value	100	D0100	P3 No Flow Alarm	Ok	Alarm	Toggle
Binary Value	101	D0101	P4 No Flow Alarm	Ok	Alarm	Toggle
Binary Value	102	D0102	P5 No Flow Alarm	Ok	Alarm	Toggle
Binary Value	103	D0103	P6 No Flow Alarm	Ok	Alarm	Toggle
Binary Value	104	D0104	Reserved			
Binary Value	105	D0105	Reserved			
Binary Value	106	D0106	Reserved			
Binary Value	107	D0107	Reserved			
Binary Value	108	D0108	Auto Bypass On			Toggle
Binary Value	109	D0109	Pump 1 Bypass On			Toggle
Binary Value	110	D0110	Pump 2 Bypass On			Toggle
Binary Value	111	D0111	Pump 3 Bypass On			Toggle
Binary Value	112	D0112	Pump 4 Bypass On			Toggle
Binary Value	113	D0113	Pump 5 Bypass On			Toggle
Binary Value	114	D0114	Pump 6 Bypass On			Toggle
Binary Value	115	D0115	Reserved			
Binary Value	116	D0116	Reserved			
Binary Value	117	D0117	Reserved			
Binary Value	118	D0118	Reserved			
Binary Value	119	D0119	Reserved			
Binary Value	120	D0120	IPS On Status	Off	On	Toggle
Binary Value	121	D0121	Reserved			
Binary Value	122	D0122	Reserved			
Binary Value	123	D0123	Reserved			
Binary Value	124	D0124	Reserved			
Binary Value	125	D0125	Reserved			
Binary Value	126	D0126	Reserved			
Binary Value	127	D0127	Reserved			
Binary Value	128	D0128	Reserved			
Binary Value	129	D0129	Reserved			
Binary Value	130	D0130	Reserved			
Binary Value	131	D0131	Reserved			
Binary Value	132	D0132	Reserved			
Binary Value	133	D0133	Reserved			
Binary Value	134	D0134	Reserved			
Binary Value	135	D0135	Reserved			
Binary Value	136	D0136	Reserved			
Binary Value	137	D0137	Reserved			
Binary Value	138	D0138	Reserved			
Binary Value	139	D0139	Reserved			
Binary Value	140	D0140	Remote Start	Stop	Start	Momentary
Binary Value	141	D0141	Set Pump 1 Hand		Hand	Momentary
Binary Value	142	D0142	Set Pump 1 Off		Off	Momentary
Binary Value	143	D0143	Set Pump 1 Auto		Auto	Momentary
Binary Value	144	D0144	Set Pump 2 Hand		Hand	Momentary
Binary Value	145	D0145	Set Pump 2 Off		Off	Momentary
Binary Value	146	D0146	Set Pump 2 Auto		Auto	Momentary
Binary Value	147	D0147	Set Pump 3 Hand		Hand	Momentary

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
Binary Value	148	D0148	Set Pump 3 Off		Off	Momentary
Binary Value	149	D0149	Set Pump 3 Auto		Auto	Momentary
Binary Value	150	D0150	Set Pump 4 Hand		Hand	Momentary
Binary Value	151	D0151	Set Pump 4 Off		Off	Momentary
Binary Value	152	D0152	Set Pump 4 Auto		Auto	Momentary
Binary Value	153	D0153	Set Pump 5 Hand		Hand	Momentary
Binary Value	154	D0154	Set Pump 5 Off		Off	Momentary
Binary Value	155	D0155	Set Pump 5 Auto		Auto	Momentary
Binary Value	156	D0156	Set Pump 6 Hand		Hand	Momentary
Binary Value	157	D0157	Set Pump 6 Off		Off	Momentary
Binary Value	158	D0158	Set Pump 6 Auto		Auto	Momentary
Binary Value	159	D0159	Auto Bypass Reset	N/A	Reset	Toggle
Binary Value	160	D0160	Alarm Reset	N/A	Reset	Toggle
Binary Value	161	D0161	Reserved			
Binary Value	162	D0162	Reserved			
Binary Value	163	D0163	Reserved			
Binary Value	164	D0164	Reserved			
Binary Value	165	D0165	Reserved			
Binary Value	166	D0166	Reserved			
Binary Value	167	D0167	Reserved			
Binary Value	168	D0168	Reserved			
Binary Value	169	D0169	Reserved			
Binary Value	170	D0170	Reserved			
Binary Value	171	D0171	Reserved			
Binary Value	172	D0172	Reserved			
Binary Value	173	D0173	Reserved			
Binary Value	174	D0174	Reserved			
Binary Value	175	D0175	Reserved			
Binary Value	176	D0176	Reserved			
Binary Value	177	D0177	Reserved			
Binary Value	178	D0178	Reserved			
Binary Value	179	D0179	Reserved			
Binary Value	180	D0180	Reserved			
Binary Value	181	D0181	Reserved			
Binary Value	182	D0182	Reserved			
Binary Value	183	D0183	Reserved			
Binary Value	184	D0184	Reserved			
Binary Value	185	D0185	Reserved			
Binary Value	186	D0186	Reserved			
Binary Value	187	D0187	Reserved			
Binary Value	188	D0188	Reserved			
Binary Value	189	D0189	Reserved			
Binary Value	190	D0190	Reserved			
Binary Value	191	D0191	Reserved			
Binary Value	192	D0192	Reserved			
Binary Value	193	D0193	Reserved			
Binary Value	194	D0194	Reserved			
Binary Value	195	D0195	Reserved			
Binary Value	196	D0196	Reserved			
Binary Value	197	D0197	Reserved			

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SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
Binary Value	198	D0198	Reserved			
Binary Value	199	D0199	Reserved			
Binary Value	200	D0200	Reserved			
Binary Value	201	D0201	Reserved			
Binary Value	202	D0202	Reserved			
Binary Value	203	D0203	Reserved			
Binary Value	204	D0204	Reserved			
Binary Value	205	D0205	Reserved			
Binary Value	206	D0206	Reserved			
Binary Value	207	D0207	Reserved			

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE	REPRESENT	UNITS
Analog Value	1	A0001	Active Zone Error	-9999 to 9999	-999.9 to 999.9	
Analog Value	2	A0002	Active Zone pv			
Analog Value	3	A0003	Active Zone sp			
Analog Value	4	A0004	Zone 1 Value	0 to 9999	0.0 to 999.9	psi, ft, kPA, m, °F or °C
Analog Value	5	A0005	Zone 2 Value			
Analog Value	6	A0006	Zone 3 Value			
Analog Value	7	A0007	Zone 4 Value			
Analog Value	8	A0008	Zone 5 Value			
Analog Value	9	A0009	Zone 6 Value			
Analog Value	10	A0010	Zone 7 Value			
Analog Value	11	A0011	Zone 8 Value			
Analog Value	12	A0012	Zone 9 Value			
Analog Value	13	A0013	Zone 10 Value			
Analog Value	14	A0014	Zone 11 Value	-9999 to 9999	-999.9 to 999.9	
Analog Value	15	A0015	Zone 12 Value			
Analog Value	16	A0016	Reserved			
Analog Value	17	A0017	Reserved			
Analog Value	18	A0018	Reserved			
Analog Value	19	A0019	Reserved			
Analog Value	20	A0020	Reserved			
Analog Value	21	A0021	Reserved			
Analog Value	22	A0022	Zone 1 Error			
Analog Value	23	A0023	Zone 2 Error			
Analog Value	24	A0024	Zone 3 Error			
Analog Value	25	A0025	Zone 4 Error			
Analog Value	26	A0026	Zone 5 Error			
Analog Value	27	A0027	Zone 6 Error			
Analog Value	28	A0028	Zone 7 Error			
Analog Value	29	A0029	Zone 8 Error			
Analog Value	30	A0030	Zone 9 Error			
Analog Value	31	A0031	Zone 10 Error			
Analog Value	32	A0032	Zone 11 Error			
Analog Value	33	A0033	Zone 12 Error			
Analog Value	34	A0034	Reserved			
Analog Value	35	A0035	Reserved			
Analog Value	36	A0036	Reserved			
Analog Value	37	A0037	Reserved			

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE	REPRESENT	UNITS
Analog Value	38	A0038	Reserved			
Analog Value	39	A0039	Reserved			
Analog Value	40	A0040	Pump 1 Speed	0 to 1000	0.0 to 100.0	%
Analog Value	41	A0041	Pump 2 Speed			
Analog Value	42	A0042	Pump 3 Speed			
Analog Value	43	A0043	Pump 4 Speed			
Analog Value	44	A0044	Pump 5 Speed			
Analog Value	45	A0045	Pump 6 Speed			
Analog Value	46	A0046	Reserved			
Analog Value	47	A0047	Reserved			
Analog Value	48	A0048	Reserved			
Analog Value	49	A0049	Reserved			
Analog Value	50	A0050	Temp Sensor PV	0 to 2120	0.0 to 212.0	°F or °C
Analog Value	51	A0051	EOC Sensor Value	0 to 32000	0 to 32000	GPM
Analog Value	52	A0052	Total Head	0 to 32767	0 to 3276.7	ft, psi, kPa
Analog Value	53	A0053	Pump 1 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
Analog Value	54	A0054	Pump 1 Drive Volt Ac			VAC
Analog Value	55	A0055	Pump 1 Drive Power			kW
Analog Value	56	A0056	Pump 1 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
Analog Value	57	A0057	Pump 2 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
Analog Value	58	A0058	Pump 2 Drive Volt Ac			VAC
Analog Value	59	A0059	Pump 2 Drive Power			kW
Analog Value	60	A0060	Pump 2 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
Analog Value	61	A0061	Pump 3 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
Analog Value	62	A0062	Pump 3 Drive Volt Ac			VAC
Analog Value	63	A0063	Pump 3 Drive Power			kW
Analog Value	64	A0064	Pump 3 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
Analog Value	65	A0065	Pump 4 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
Analog Value	66	A0066	Pump 4 Drive Volt Ac			VAC
Analog Value	67	A0067	Pump 4 Drive Power			kW
Analog Value	68	A0068	Pump 4 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
Analog Value	69	A0069	Pump 5 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
Analog Value	70	A0070	Pump 5 Drive Volt Ac			VAC
Analog Value	71	A0071	Pump 5 Drive Power			kW
Analog Value	72	A0072	Pump 5 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
Analog Value	73	A0073	Pump 6 Drive Amp	0 to 10000	0.0 to 1000.0	Amp
Analog Value	74	A0074	Pump 6 Drive Volt Ac			VAC
Analog Value	75	A0075	Pump 6 Drive Power			kW
Analog Value	76	A0076	Pump 6 Drive Speed Feedback	0 to 1000	0.0 to 100.0	%
Analog Value	77	A0077	Reserved			
Analog Value	78	A0078	Reserved			
Analog Value	79	A0079	Pump 1 Drive KWH	0 to 10000	0.0 to 1000.0	KWH
Analog Value	80	A0080	Pump 2 Drive KWH			
Analog Value	81	A0081	Pump 3 Drive KWH			
Analog Value	82	A0082	Pump 4 Drive KWH			
Analog Value	83	A0083	Pump 5 Drive KWH			
Analog Value	84	A0084	Pump 6 Drive KWH			
Analog Value	85	A0085	Reserved			
Analog Value	86	A0086	Reserved			
Analog Value	87	A0087	Reserved			
Analog Value	88	A0088	Reserved			

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SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE	REPRESENT	UNITS
Analog Value	89	A0089	Reserved			
Analog Value	90	A0090	Reserved			
Analog Value	91	A0091	Reserved			
Analog Value	92	A0092	Reserved			
Analog Value	93	A0093	Pump 1 Head	0 to 32767	0 to 3276.7	ft, psi, kPa
Analog Value	94	A0094	Pump 2 Head			
Analog Value	95	A0095	Pump 3 Head			
Analog Value	96	A0096	Pump 4 Head			
Analog Value	97	A0097	Pump 5 Head			
Analog Value	98	A0098	Pump 6 Head			
Analog Value	99	A0099	Reserved			
Analog Value	100	A0100	Reserved			
Analog Value	101	A0101	Reserved			
Analog Value	102	A0102	Reserved			
Analog Value	103	A0103	Wire to Water Efficiency	0 to 9999	0.0 to 999.9	
Analog Value	104	A0104	Reserved			
Analog Value	105	A0105	Reserved			
Analog Value	106	A0106	Reserved			
Analog Value	107	A0107	Reserved			
Analog Value	108	A0108	Reserved			
Analog Value	109	A0109	Reserved			
Analog Value	110	A0110	Reserved			
Analog Value	111	A0111	Reserved			
Analog Value	112	A0112	Reserved			
Analog Value	113	A0113	Reserved			
Analog Value	114	A0114	Reserved			
Analog Value	115	A0115	Reserved			
Analog Value	116	A0116	Reserved			
Analog Value	117	A0117	Reserved			
Analog Value	118	A0118	Reserved			
Analog Value	119	A0119	Reserved			
Analog Value	120	A0120	Reserved			
Analog Value	121	A0121	Reserved			
Analog Value	122	A0122	Reserved			
Analog Value	123	A0123	Reserved			
Analog Value	124	A0124	Reserved			
Analog Value	125	A0125	Reserved			
Analog Value	126	A0126	Reserved			
Analog Value	127	A0127	Reserved			
Analog Value	128	A0128	Reserved			
Analog Value	129	A0129	Reserved			
Analog Value	130	A0130	Reserved			
Analog Value	131	A0131	Reserved			
Analog Value	132	A0132	Reserved			
Analog Value	133	A0133	Reserved			
Analog Value	134	A0134	Reserved			
Analog Value	135	A0135	Reserved			
Analog Value	136	A0136	Reserved			
Analog Value	137	A0137	Reserved			
Analog Value	138	A0138	Reserved			

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE	REPRESENT	UNITS
Analog Value	139	A0139	Reserved			
Analog Value	140	A0140	Zone 1 SP	0 to 9999	0.0 to 999.9	psi, ft, kPA, m, °F or °C
Analog Value	141	A0141	Zone 2 SP			
Analog Value	142	A0142	Zone 3 SP			
Analog Value	143	A0143	Zone 4 SP			
Analog Value	144	A0144	Zone 5 SP			
Analog Value	145	A0145	Zone 6 SP			
Analog Value	146	A0146	Zone 7 SP			
Analog Value	147	A0147	Zone 8 SP			
Analog Value	148	A0148	Zone 9 SP			
Analog Value	149	A0149	Zone 10 SP			
Analog Value	150	A0150	Zone 11 SP			
Analog Value	151	A0151	Zone 12 SP			
Analog Value	152	A0152	Pump 1 Hand Speed	0 to 1000	0.0 to 100.0	%
Analog Value	153	A0153	Pump 2 Hand Speed			
Analog Value	154	A0154	Pump 3 Hand Speed			
Analog Value	155	A0155	Pump 4 Hand Speed			
Analog Value	156	A0156	Pump 5 Hand Speed			
Analog Value	157	A0157	Pump 6 Hand Speed			
Analog Value	158	A0158	Max Valve Opening	0 to 100	0.0 to 100.0	%
Analog Value	159	A0159	Reserved			
Analog Value	160	A0160	Design Head	0 to 9999	0.0 to 999.9	ft,psi,bar
Analog Value	161	A0161	Zero Flow Head			
Analog Value	162	A0162	Reserved			
Analog Value	163	A0163	Head BEP	0 to 9999	0.0 to 999.9	ft,psi,bar
Analog Value	164	A0164	Dead Band(K)			
Analog Value	165	A0165	Staging Sensor Factor	0 to 10	0 to 1.0	
Analog Value	166	A0166	Summer Design Head (Future use)	0 to 9999	0.0 to 999.9	ft,psi,bar
Analog Value	167	A0167	Summer Zero Flow Head (Future use)			
Analog Value	168	A0168	Winter Design Head (Future use)			
Analog Value	169	A0169	Winter Zero Flow Head (Future use)			
Analog Value	170	A0170	Min Zero Flow Head DP SP (Future use)			
Analog Value	171	A0171	BAS Zone 1 PV	0 to 9999	0.0 to 999.9	psi, ft, kPA, m, °F or °C
Analog Value	172	A0172	BAS Zone 2 PV			
Analog Value	173	A0173	BAS Zone 3 PV			
Analog Value	174	A0174	BAS Zone 4 PV			
Analog Value	175	A0175	BAS Zone 5 PV			
Analog Value	176	A0176	BAS Zone 6 PV			
Analog Value	177	A0177	BAS Zone 7 PV			
Analog Value	178	A0178	BAS Zone 8 PV			
Analog Value	179	A0179	BAS Zone 9 PV			
Analog Value	180	A0180	BAS Zone 10 PV			
Analog Value	181	A0181	BAS Zone 11 PV			
Analog Value	182	A0182	BAS Zone 12 PV			
Analog Value	183	A0183	Reserved			
Analog Value	184	A0184	Reserved			
Analog Value	185	A0185	Reserved			
Analog Value	186	A0186	Reserved			
Analog Value	187	A0187	Reserved			
Analog Value	188	A0188	Reserved			

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SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE	REPRESENT	UNITS
Analog Value	189	A0189	Reserved			
Analog Value	190	A0190	Reserved			
Analog Value	191	A0191	Reserved			
Analog Value	192	A0192	Reserved			
Analog Value	193	A0193	Reserved			
Analog Value	194	A0194	Reserved			
Analog Value	195	A0195	Reserved			
Analog Value	196	A0196	Reserved			
Analog Value	1001	A1001	Active Zone			
Analog Value	1002	A1002	End Of Curve PV	0.0 to 3200.0		gpm
Analog Value	1003	A1003	Pump 1 Flow	0 to 32000		gpm, lps, m ³ /hr
Analog Value	1004	A1004	Pump 2 Flow			
Analog Value	1005	A1005	Pump 3 Flow			
Analog Value	1006	A1006	Pump 4 Flow			
Analog Value	1007	A1007	Pump 5 Flow			
Analog Value	1008	A1008	Pump 6 Flow			
Analog Value	1009	A1009	Reserved			
Analog Value	1010	A1010	Reserved			
Analog Value	1011	A1011	Reserved			
Analog Value	1012	A1012	Reserved			
Analog Value	1013	A1013	Total Flow	0 to 32767	0 to 327670	gpm
Analog Value	1014	A1014	Pump 1 Operating Run Hours	0 to 999		Hrs
Analog Value	1015	A1015	Pump 1 Operating Run KHours	0 to 32000		Hrs ×1000
Analog Value	1016	A1016	Pump 2 Operating Run Hours	0 to 999		Hrs
Analog Value	1017	A1017	Pump 2 Operating Run KHours	0 to 32000		Hrs ×1000
Analog Value	1018	A1018	Pump 3 Operating Run Hours	0 to 999		Hrs
Analog Value	1019	A1019	Pump 3 Operating Run KHours	0 to 32000		Hrs ×1000
Analog Value	1020	A1020	Pump 4 Operating Run Hours	0 to 999		Hrs
Analog Value	1021	A1021	Pump 4 Operating Run KHours	0 to 32000		Hrs ×1000
Analog Value	1022	A1022	Pump 5 Operating Run Hours	1 to 999		Hrs
Analog Value	1023	A1023	Pump 5 Operating Run KHours	1 to 32000		Hrs ×1001
Analog Value	1024	A1024	Pump 6 Operating Run Hours	1 to 999		Hrs
Analog Value	1025	A1025	Pump 6 Operating Run KHours	1 to 32000		Hrs ×1001
Analog Value	1026	A1026	Reserved			
Analog Value	1027	A1027	Reserved			
Analog Value	1028	A1028	Reserved			
Analog Value	1029	A1029	Reserved			
Analog Value	1030	A1030	Reserved			
Analog Value	1031	A1031	Reserved			
Analog Value	1032	A1032	Reserved			
Analog Value	1033	A1033	Number of Pump Running in Auto	0 to 6		
Analog Value	1034	A1034	Lead Pump ID	0 to 6		
Analog Value	1035	A1035	Flow Design	0 to 32767	0 to 327670	gpm
Analog Value	1036	A1036	Reserved			
Analog Value	1037	A1037	Flow BEP	0 to 32767	0 to 327670	gpm
Analog Value	1038	A1038	Number Of Pumps Configured	0 to 6		
Analog Value	1039	A1039	Lead Pump Switch Time	0-32767		Days
Analog Value	1040	A1040	Summer Design Flow (Future use)	0 to 32767	0 to 327670	gpm
Analog Value	1041	A1041	Winter Design Flow (Future use)	0 to 32767	0 to 327670	gpm
Analog Value	1042	A1042	Min Flow per Chiller (Future use)			

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE	REPRESENT	UNITS
Analog Value	1043	A1043	Max Flow per Chiller (Future use)			
Analog Value	1044	A1044	Number of Active Chillers/Boilers (Future)			
Analog Value	1045	A1045	Reserved			
Analog Value	1046	A1046	Reserved			
Analog Value	1047	A1047	Reserved			
Analog Value	1048	A1048	Reserved			
Analog Value	1049	A1049	Reserved			
Analog Value	1050	A1050	Reserved			
Analog Value	1051	A1051	Reserved			
Analog Value	1052	A1052	Reserved			
Analog Value	1053	A1053	Reserved			
Analog Value	1054	A1054	Reserved			
Analog Value	1055	A1055	Reserved			
Analog Value	1056	A1056	Reserved			
Analog Value	1057	A1057	Reserved			
Analog Value	1058	A1058	Reserved			
Analog Value	1059	A1059	Reserved			
Analog Value	1060	A1060	Reserved			
Analog Value	1061	A1061	Reserved			
Analog Value	1062	A1062	Reserved			
Analog Value	1063	A1063	Reserved			
Analog Value	1064	A1064	Reserved			
Analog Value	1065	A1065	Reserved			
Analog Value	1066	A1066	Reserved			
Analog Value	1067	A1067	Reserved			
Analog Value	1068	A1068	Reserved			
Analog Value	1069	A1069	Reserved			
Analog Value	1070	A1070	Reserved			
Analog Value	1071	A1071	Reserved			
Analog Value	1072	A1072	Reserved			
Analog Value	1073	A1073	Reserved			
Analog Value	1074	A1074	Reserved			
Analog Value	1075	A1075	Reserved			
Analog Value	1076	A1076	Reserved			
Analog Value	1077	A1077	Reserved			
Analog Value	1078	A1078	Reserved			
Analog Value	1079	A1079	Reserved			
Analog Value	1080	A1080	Reserved			
Analog Value	1081	A1081	Reserved			
Analog Value	1082	A1082	Reserved			
Analog Value	1083	A1083	Reserved			
Analog Value	1084	A1084	Reserved			
Analog Value	1085	A1085	Reserved			
Analog Value	1086	A1086	Reserved			
Analog Value	1087	A1087	Reserved			
Analog Value	1088	A1088	Reserved			
Analog Value	1089	A1089	Reserved			
Analog Value	1090	A1090	Reserved			
Analog Value	1091	A1091	Reserved			
Analog Value	1092	A1092	Reserved			

IPS 4000 Integrated pumping system
for variable secondary application

DATA POINTS

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SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE	REPRESENT	UNITS
Analog Value	1093	A1093	Reserved			
Analog Value	1094	A1094	Reserved			
Analog Value	1095	A1095	Reserved			
Analog Value	1096	A1096	Reserved			
Analog Value	1097	A1097	Reserved			
Analog Value	1098	A1098	Reserved			
Analog Value	1099	A1099	Reserved			
Analog Value	1100	A1100	Reserved			
Analog Value	1101	A1101	Reserved			
Analog Value	1102	A1102	Reserved			
Analog Value	1103	A1103	Reserved			
Analog Value	1104	A1104	Reserved			
Analog Value	1105	A1105	Reserved			
Analog Value	1106	A1106	Reserved			
Analog Value	1107	A1107	Reserved			
Analog Value	1108	A1108	Reserved			
Analog Value	1109	A1109	Reserved			
Analog Value	1110	A1110	Reserved			
Analog Value	1111	A1111	Reserved			
Analog Value	1112	A1112	Reserved			
Analog Value	1113	A1113	Reserved			
Analog Value	1114	A1114	Reserved			
Analog Value	1115	A1115	Reserved			
Analog Value	1116	A1116	Reserved			
Analog Value	1117	A1117	Reserved			
Analog Value	1118	A1118	Reserved			
Analog Value	1119	A1119	Reserved			
Analog Value	1120	A1120	Reserved			
Analog Value	1121	A1121	Reserved			
Analog Value	1122	A1122	Reserved			
Analog Value	1123	A1123	Reserved			
Analog Value	1124	A1124	Reserved			
Analog Value	1125	A1125	Reserved			
Analog Value	1126	A1126	Reserved			
Analog Value	1127	A1127	Reserved			

BAS DATA POINTS - LONWORKS

IPS 4000 - BUILDING AUTOMATION SYSTEM REV 2017061

LonWorks Communication Interface

TYPE	NAME NV	TYPE NV	DIRECTION	RES/UNIT
ANL	nvoActZonePV	30	Output	0.1 Unit
ANL	nvoActZoneSP	30	Output	0.1 Unit
ANL	nvoActZoneErr	30	Output	0.1 Unit
ANL	nvoZone1PV	30	Output	0.1 Unit
ANL	nvoZone2PV	30	Output	0.1 Unit
ANL	nvoZone3PV	30	Output	0.1 Unit
ANL	nvoZone4PV	30	Output	0.1 Unit
ANL	nvoZone5PV	30	Output	0.1 Unit
ANL	nvoZone1Err	30	Output	0.1 Unit
ANL	nvoZone2Err	30	Output	0.1 Unit
ANL	nvoZone3Err	30	Output	0.1 Unit
ANL	nvoZone4Err	30	Output	0.1 Unit
ANL	nvoZone5Err	30	Output	0.1 Unit
ANL	nvoDrv1Amp	1	Output	0.1 Amp
ANL	nvoDrv1Kw	28	Output	0.1 kW
ANL	nvoDrv2Amp	1	Output	0.1 Amp
ANL	nvoDrv2Kw	28	Output	0.1 kW
ANL	nvoDrv3Amp	1	Output	0.1 Amp
ANL	NvoDrv3Kw	28	Output	0.1 kW
ANL	nvoDrv4Amp	1	Output	0.1 Amp
ANL	nvoDrv4Kw	28	Output	0.1 kW
ANL	nvoDrv5Amp	1	Output	0.1 Amp
ANL	nvoDrv5Kw	28	Output	0.1 kW
ANL	nvoDrv6Amp	1	Output	0.1 Amp
ANL	nvoDrv6Kw	28	Output	0.1 kW
ANL	nvoP1Speed	34	Output	0.1%
ANL	nvoP2Speed	34	Output	0.1%
ANL	nvoP3Speed	34	Output	0.1%
ANL	nvoP4Speed	34	Output	0.1%
ANL	nvoP5Speed	34	Output	0.1%
ANL	nvoP6Speed	34	Output	0.1%
ANL	nvoWord1	83	Output	1 bit
ANL	nvoWord2	83	Output	1 bit
ANL	nvoWord3	83	Output	1 bit
ANL	nvoWord4	83	Output	1 bit
ANL	nvoWord5	83	Output	1 bit
INT	nvoActZone	8	Output	1
ANL	nvoSystemHead	30	Output	1 Unit
INT	nvoSysFlow	15	Output	1
INT	nvoLeadPump	8	Output	1

TYPE	NAME NV	TYPE NV	DIRECTION	RES/UNIT
ANL	nviStageFactor	8	Input	0.1%
ANL	nviZone1SP	30	Input	0.1 Unit
ANL	nviZone2SP	30	Input	0.1 Unit
ANL	nviZone3SP	30	Input	0.1 Unit
ANL	nviZone4SP	30	Input	0.1 Unit
ANL	nviZone5SP	30	Input	0.1 Unit
ANL	nviHeadDes	30	Input	0.1 Unit
ANL	nviZeroFlowHead	30	Input	0.1 Unit
INT	nviDesFlow	15	Input	1
INT	nviNoOfPumps	8	Input	1
INT	nviPmpSwitchTime	8	Input	1
ANL	nviHeadBEP	30	Input	0.1 Unit
INT	nviFlowBEP	15	Input	1
ANL	nviStageDeadBand	8	Input	0.1 Unit
ANL	nviVlvMaxOpen	8	Input	0.1 Unit
DGT	nviRemStart	95	Input	On/Off
DGT	nviAlarmReset	95	Input	On/Off
DGT	nviBypassReset	95	Input	On/Off

	NAME NV
nvoWord1 Bit:	Pump 1 in Hand
	Pump 1 in Off
	Pump 1 in Auto
	Pump 2 in Hand
	Pump 2 in Off
	Pump 2 in Auto
	Pump 3 in Hand
	Pump 3 in Off
	Pump 3 in Auto
	Pump 4 in Hand
	Pump 4 in Off
	Pump 4 in Auto
	Pump 5 in Hand
	Pump 5 in Off
	Pump 5 in Auto
	Pump 6 in Hand

	NAME NV
nvoWord3 Bit:	Pump 3 No Flow Alarm
	Pump 4 No Flow Alarm
	Pump 5 No Flow Alarm
	Pump 6 No Flow Alarm
	Pump 1 in Auto Bypass
	Pump 2 in Auto Bypass
	Pump 3 in Auto Bypass
	Pump 4 in Auto Bypass
	Pump 5 in Auto Bypass
	Pump 6 in Auto Bypass
	System Alarm
	Pump Alarm
	Temp Sensor Alarm
	Auto Bypass On
	Pump 1 Run Feedback
	Pump 2 Run Feedback

	NAME NV
nvoWord2 Bit:	Pump 6 in Off
	Pump 6 in Auto
	Pump 1 Run Feedback Alarm
	Pump 2 Run Feedback Alarm
	Pump 3 Run Feedback Alarm
	Pump 4 Run Feedback Alarm
	Pump 5 Run Feedback Alarm
	Pump 6 Run Feedback Alarm
	Pump 1 Drive Fault
	Pump 2 Drive Fault
	Pump 3 Drive Fault
	Pump 4 Drive Fault
	Pump 5 Drive Fault
	Pump 6 Drive Fault
	Pump 1 No Flow Alarm
	Pump 2 No Flow Alarm

	NAME NV
nvoWord4 Bit:	Pump 3 Run Feedback
	Pump 4 Run Feedback
	Pump 5 Run Feedback
	Pump 6 Run Feedback
	Pump 1 Alarm
	Pump 2 Alarm
	Pump 3 Alarm
	Pump 4 Alarm
	Pump 5 Alarm
	Pump 6 Alarm
	System DP Xmtr Alarm
	System Flow Xmtr Alarm
	All Zone Failed
	Zone 1 Xmtr Alarm
	Zone 2 Xmtr Alarm
Zone 3 Xmtr Alarm	

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