

# IPC11550 BACNET PROTOCOL | DATA POINTS

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## BUILDING AUTOMATION SYSTEM - BACNET/IP, BACNET ETHERNET, OR BACNET MSTP IPC 11550 COMMUNICATION INTERFACE REV 16.051 (DEVICE ID: 77000)

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
DI	1	D001	Remote Start	Stop	Start	Toggle
DI	2	D002	Set CHW Pump 1 Hand		Hand	Momentary
DI	3	D003	Set CHW Pump 1 Off		Off	Momentary
DI	4	D004	Set CHW Pump 1 Auto		Auto	Momentary
DI	5	D005	Set CHW Pump 2 Hand		Hand	Momentary
DI	6	D006	Set CHW Pump 2 Off		Off	Momentary
DI	7	D007	Set CHW Pump 2 Auto		Auto	Momentary
DI	8	D008	Set CHW Pump 3 Hand		Hand	Momentary
DI	9	D009	Set CHW Pump 3 Off		Off	Momentary
DI	10	D010	Set CHW Pump 3 Auto		Auto	Momentary
DI	11	D011	Set CHW Pump 4 Hand		Hand	Momentary
DI	12	D012	Set CHW Pump 4 Off		Off	Momentary
DI	13	D013	Set CHW Pump 4 Auto		Auto	Momentary
DI	14	D014	Set CHW Pump 5 Hand		Hand	Momentary
DI	15	D015	Set CHW Pump 5 Off		Off	Momentary
DI	16	D016	Set CHW Pump 5 Auto		Auto	Momentary
DI	17	D017	Set CW Pump 1 Hand		Hand	Momentary
DI	18	D018	Set CW Pump 1 Off		Off	Momentary
DI	19	D019	Set CW Pump 1 Auto		Auto	Momentary
DI	20	D020	Set CW Pump 2 Hand		Hand	Momentary
DI	21	D021	Set CW Pump 2 Off		Off	Momentary
DI	22	D022	Set CW Pump 2 Auto		Auto	Momentary
DI	23	D023	Set CW Pump 3 Hand		Hand	Momentary
DI	24	D024	Set CW Pump 3 Off		Off	Momentary
DI	25	D025	Set CW Pump 3 Auto		Auto	Momentary
DI	26	D026	Set CW Pump 4 Hand		Hand	Momentary
DI	27	D027	Set CW Pump 4 Off		Off	Momentary
DI	28	D028	Set CW Pump 4 Auto		Auto	Momentary
DI	29	D029	Set CW Pump 5 Hand		Hand	Momentary
DI	30	D030	Set CW Pump 5 Off		Off	Momentary
DI	31	D031	Set CW Pump 5 Auto		Auto	Momentary
DI	32	D032	Set Tower 1 Fan Hand		Hand	Momentary
DI	33	D033	Set Tower 1 Fan Off		Off	Momentary
DI	34	D034	Set Tower 1 Fan Auto		Auto	Momentary
DI	35	D035	Set Tower 2 Fan Hand		Hand	Momentary
DI	36	D036	Set Tower 2 Fan Off		Off	Momentary
DI	37	D037	Set Tower 2 Fan Auto		Auto	Momentary
DI	38	D038	Set Tower 3 Fan Hand		Hand	Momentary
DI	39	D039	Set Tower 3 Fan Off		Off	Momentary

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
DI	40	D040	Set Tower 3 Fan Auto		Auto	Momentary
DI	41	D041	Set Tower 4 Fan Hand		Hand	Momentary
DI	42	D042	Set Tower 4 Fan Off		Off	Momentary
DI	43	D043	Set Tower 4 Fan Auto		Auto	Momentary
DI	44	D044	Set Tower 5 Fan Hand		Hand	Momentary
DI	45	D045	Set Tower 5 Fan Off		Off	Momentary
DI	46	D046	Set Tower 5 Fan Auto		Auto	Momentary
DI	47	D047	Set Chiller 1 Hand		Hand	Momentary
DI	48	D048	Set Chiller 1 Off		Off	Momentary
DI	49	D049	Set Chiller 1 Auto		Auto	Momentary
DI	50	D050	Set Chiller 2 Hand		Hand	Momentary
DI	51	D051	Set Chiller 2 Off		Off	Momentary
DI	52	D052	Set Chiller 2 Auto		Auto	Momentary
DI	53	D053	Set Chiller 3 Hand		Hand	Momentary
DI	54	D054	Set Chiller 3 Off		Off	Momentary
DI	55	D055	Set Chiller 3 Auto		Auto	Momentary
DI	56	D056	Set Chiller 4 Hand		Hand	Momentary
DI	57	D057	Set Chiller 4 Off		Off	Momentary
DI	58	D058	Set Chiller 4 Auto		Auto	Momentary
DI	59	D059	Set Chiller 5 Hand		Hand	Momentary
DI	60	D060	Set Chiller 5 Off		Off	Momentary
DI	61	D061	Set Chiller 5 Auto		Auto	Momentary
DI	62	D062	Sel cHW Pump 1 Lead		Lead	Momentary
DI	63	D063	Sel cHW Pump 2 Lead		Lead	Momentary
DI	64	D064	Sel cHW Pump 3 Lead		Lead	Momentary
DI	65	D065	Sel cHW Pump 4 Lead		Lead	Momentary
DI	66	D066	Sel cHW Pump 5 Lead		Lead	Momentary
DI	67	D067	Sel cw Pump 1 Lead		Lead	Momentary
DI	68	D068	Sel cw Pump 2 Lead		Lead	Momentary
DI	69	D069	Sel cw Pump 3 Lead		Lead	Momentary
DI	70	D070	Sel cw Pump 4 Lead		Lead	Momentary
DI	71	D071	Sel cw Pump 5 Lead		Lead	Momentary
DI	72	D072	Sel Chiller 1 Lead		Lead	Momentary
DI	73	D073	Sel Chiller 2 Lead		Lead	Momentary
DI	74	D074	Sel Chiller 3 Lead		Lead	Momentary
DI	75	D075	Sel Chiller 4 Lead		Lead	Momentary
DI	76	D076	Sel Chiller 5 Lead		Lead	Momentary
DI	77	D077	cHW Bypass Vlv Man/Auto	Manual	Auto	Toggle
DI	78	D078	cw Bypass Vlv Man/Auto	Manual	Auto	Toggle
DI	79	D079	Chlr 1 cHW Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	80	D080	Chlr 1 cw Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	81	D081	Chlr 2 cHW Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	82	D082	Chlr 2 cw Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	83	D083	Chlr 3 cHW Isol Vlv Man/Auto	Manual	Auto	Toggle

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
DI	84	D084	Chlr 3 cw Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	85	D085	Chlr 4 chW Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	86	D086	Chlr 4 cw Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	87	D087	Chlr 5 chW Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	88	D088	Chlr 5 cw Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	89	D089	Tower 1 Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	90	D090	Tower 2 Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	91	D091	Tower 3 Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	92	D092	Tower 4 Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	93	D093	Tower 5 Isol Vlv Man/Auto	Manual	Auto	Toggle
DI	94	D094	Open Chlr 1 chW Isol Vlv	Close	Open	Toggle
DI	95	D095	Open Chlr 1 cw Isol Vlv	Close	Open	Toggle
DI	96	D096	Open Chlr 2 chW Isol Vlv	Close	Open	Toggle
DI	97	D097	Open Chlr 2 cw Isol Vlv	Close	Open	Toggle
DI	98	D098	Open Chlr 3 chW Isol Vlv	Close	Open	Toggle
DI	99	D099	Open Chlr 3 cw Isol Vlv	Close	Open	Toggle
DI	100	D100	Open Chlr 4 chW Isol Vlv	Close	Open	Toggle
DI	101	D101	Open Chlr 4 cw Isol Vlv	Close	Open	Toggle
DI	102	D102	Open Chlr 5 chW Isol Vlv	Close	Open	Toggle
DI	103	D103	Open Chlr 5 cw Isol Vlv	Close	Open	Toggle
DI	104	D104	Open Tower 1 Isol Vlv	Close	Open	Toggle
DI	105	D105	Open Tower 2 Isol Vlv	Close	Open	Toggle
DI	106	D106	Open Tower 3 Isol Vlv	Close	Open	Toggle
DI	107	D107	Open Tower 4 Isol Vlv	Close	Open	Toggle
DI	108	D108	Open Tower 5 Isol Vlv	Close	Open	Toggle
DI	109	D109	Alarm Reset		Reset	Momentary
DI	110	D110	Winter Shutdown	Off	On	Toggle
DI	111	D111	Emergency Stop	Off	On	Toggle
DI	112	D112	Set Tower 1 Lead		Lead	Momentary
DI	113	D113	Set Tower 2 Lead		Lead	Momentary
DI	114	D114	Set Tower 3 Lead		Lead	Momentary
DO	115	D115	Set Tower 4 Lead		Lead	Momentary
DO	116	D116	Set Tower 5 Lead		Lead	Momentary
DO	117	D117				
DO	118	D118				
DO	119	D119				
DO	120	D120	chW Pump 1 Run Feedback	Stopped	Running	Toggle
DO	121	D121	chW Pump 1 Alarm	Ok	Alarm	Toggle
DO	122	D122	chW Pump 2 Run Feedback	Stopped	Running	Toggle
DO	123	D123	chW Pump 2 Alarm	Ok	Alarm	Toggle
DO	124	D124	chW Pump 3 Run Feedback	Stopped	Running	Toggle
DO	125	D125	chW Pump 3 Alarm	Ok	Alarm	Toggle
DO	126	D126	chW Pump 4 Run Feedback	Stopped	Running	Toggle

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
DO	127	D127	CHW Pump 4 Alarm	Ok	Alarm	Toggle
DO	128	D128	CHW Pump 5 Run Feedback	Stopped	Running	Toggle
DO	129	D129	CHW Pump 5 Alarm	Ok	Alarm	Toggle
DO	130	D130	cw Pump 1 Run Feedback	Stopped	Running	Toggle
DO	131	D131	cw Pump 1 Alarm	Ok	Alarm	Toggle
DO	132	D132	cw Pump 2 Run Feedback	Stopped	Running	Toggle
DO	133	D133	cw Pump 2 Alarm	Ok	Alarm	Toggle
DO	134	D134	cw Pump 3 Run Feedback	Stopped	Running	Toggle
DO	135	D135	cw Pump 3 Alarm	Ok	Alarm	Toggle
DO	136	D136	cw Pump 4 Run Feedback	Stopped	Running	Toggle
DO	137	D137	cw Pump 4 Alarm	Ok	Alarm	Toggle
DO	138	D138	cw Pump 5 Run Feedback	Stopped	Running	Toggle
DO	139	D139	cw Pump 5 Alarm	Ok	Alarm	Toggle
DO	140	D140	Tower 1 Fan Run Feedback	Stopped	Running	Toggle
DO	141	D141	Tower 1 Fan Alarm	Ok	Alarm	Toggle
DO	142	D142	Tower 2 Fan Run Feedback	Stopped	Running	Toggle
DO	143	D143	Tower 2 Fan Alarm	Ok	Alarm	Toggle
DO	144	D144	Tower 3 Fan Run Feedback	Stopped	Running	Toggle
DO	145	D145	Tower 3 Fan Alarm	Ok	Alarm	Toggle
DO	146	D146	Tower 4 Fan Run Feedback	Stopped	Running	Toggle
DO	147	D147	Tower 4 Fan Alarm	Ok	Alarm	Toggle
DO	148	D148	Tower 5 Fan Run Feedback	Stopped	Running	Toggle
DO	149	D149	Tower 5 Fan Alarm	Ok	Alarm	Toggle
DO	150	D150	All Zone Transmitter Failed	Ok	Alarm	Toggle
DO	151	D151	Zone 1 Transmitter Failed	Ok	Alarm	Toggle
DO	152	D152	Zone 2 Transmitter Failed	Ok	Alarm	Toggle
DO	153	D153	Zone 3 Transmitter Failed	Ok	Alarm	Toggle
DO	154	D154	Zone 4 Transmitter Failed	Ok	Alarm	Toggle
DO	155	D155	Zone 5 Transmitter Failed	Ok	Alarm	Toggle
DO	156	D156	Zone 6 Transmitter Failed	Ok	Alarm	Toggle
DO	157	D157	Zone 7 Transmitter Failed	Ok	Alarm	Toggle
DO	158	D158	Zone 8 Transmitter Failed	Ok	Alarm	Toggle
DO	159	D159	Zone 9 Transmitter Failed	Ok	Alarm	Toggle
DO	160	D160	Zone 10 Transmitter Failed	Ok	Alarm	Toggle
DO	161	D161	Zone 11 Transmitter Failed	Ok	Alarm	Toggle
DO	162	D162	Zone 12 Transmitter Failed	Ok	Alarm	Toggle
DO	163	D163	CHWR Temp Transmitter Failed	Ok	Alarm	Toggle
DO	164	D164	CHWS Temp Transmitter Failed	Ok	Alarm	Toggle
DO	165	D165	cw Inlet Temp Transmitter Failed	Ok	Alarm	Toggle
DO	166	D166	cw Outlet Temp Transmitter Failed	Ok	Alarm	Toggle
DO	167	D167	Dry Bulb Air Temp Transmitter Failed	Ok	Alarm	Toggle
DO	168	D168	Relative Humidity Transmitter Failed	Ok	Alarm	Toggle
DO	169	D169	CHW Flow Transmitter Failed	Ok	Alarm	Toggle
DO	170	D170	CHW Bypass Flow Transmitter Failed	Ok	Alarm	Toggle

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	OFF STATE (0)	ON STATE (1)	TYPE
DO	171	D171	CHW Dist Flow Transmitter Failed	Ok	Alarm	Toggle
DO	172	D172	CHWP DP Transmitter Failed	Ok	Alarm	Toggle
DO	173	D173	CWP Flow Transmitter Failed	Ok	Alarm	Toggle
DO	174	D174	CWP DP Transmitter Failed	Ok	Alarm	Toggle
DO	175	D175	Chiller 1 Run Feedback	Stopped	Running	Toggle
DO	176	D176	Chiller 1 Alarm	Ok	Alarm	Toggle
DO	177	D177	Chiller 1 Power Transmitter Failed	Ok	Alarm	Toggle
DO	178	D178	Chiller 2 Run Feedback	Stopped	Running	Toggle
DO	179	D179	Chiller 2 Alarm	Ok	Alarm	Toggle
DO	180	D180	Chiller 2 Power Transmitter Failed	Ok	Alarm	Toggle
DO	181	D181	Chiller 3 Run Feedback	Stopped	Running	Toggle
DO	182	D182	Chiller 3 Alarm	Ok	Alarm	Toggle
DO	183	D183	Chiller 3 Power Transmitter Failed	Ok	Alarm	Toggle
DO	184	D184	Chiller 4 Run Feedback	Stopped	Running	Toggle
DO	185	D185	Chiller 4 Alarm	Ok	Alarm	Toggle
DO	186	D186	Chiller 4 Power Transmitter Failed	Ok	Alarm	Toggle
DO	187	D187	Chiller 5 Run Feedback	Stopped	Running	Toggle
DO	188	D188	Chiller 5 Alarm	Ok	Alarm	Toggle
DO	189	D189	Chiller 5 Power Transmitter Failed	Ok	Alarm	Toggle
DO	190	D190	Chlr 1 CHW Isol Vlv Alarm	Ok	Alarm	Toggle
DO	191	D191	Chlr 2 CHW Isol Vlv Alarm	Ok	Alarm	Toggle
DO	192	D192	Chlr 3 CHW Isol Vlv Alarm	Ok	Alarm	Toggle
DO	193	D193	Chlr 4 CHW Isol Vlv Alarm	Ok	Alarm	Toggle
DO	194	D194	Chlr 5 CHW Isol Vlv Alarm	Ok	Alarm	Toggle
DO	195	D195	Chlr 1 CW Isol Vlv Alarm	Ok	Alarm	Toggle
DO	196	D196	Chlr 2 CW Isol Vlv Alarm	Ok	Alarm	Toggle
DO	197	D197	Chlr 3 CW Isol Vlv Alarm	Ok	Alarm	Toggle
DO	198	D198	Chlr 4 CW Isol Vlv Alarm	Ok	Alarm	Toggle
DO	199	D199	Chlr 5 CW Isol Vlv Alarm	Ok	Alarm	Toggle
DO	200	D200	Tower 1 Isol Vlv Alarm	Ok	Alarm	Toggle
DO	201	D201	Tower 2 Isol Vlv Alarm	Ok	Alarm	Toggle
DO	202	D202	Tower 3 Isol Vlv Alarm	Ok	Alarm	Toggle
DO	203	D203	Tower 4 Isol Vlv Alarm	Ok	Alarm	Toggle
DO	204	D204	Tower 5 Isol Vlv Alarm	Ok	Alarm	Toggle
DO	205	D205	Refrigerant Leak	Ok	Alarm	Toggle
DO	206	D206	PLC01 to PLC02 Comm Alarm	Ok	Alarm	Toggle
DO	207	D207	PLC01 to PLC06 Comm Alarm	Ok	Alarm	Toggle
DO	208	D208	PLC01 to PLC10 Comm Alarm	Ok	Alarm	Toggle
DO	209	D209	PLC02 to PLC03 Comm Alarm	Ok	Alarm	Toggle
DO	210	D210	PLC06 to PLC07 Comm Alarm	Ok	Alarm	Toggle
DO	211	D211	PLC10 to PLC03 Comm Alarm	Ok	Alarm	Toggle
DO	212	D212	PLC10 to PLC07 Comm Alarm	Ok	Alarm	Toggle

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SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE (UNITS)
AO	1	A001	Plant Efficiency (kW/Ton)	0.0 to 3200.0 (W/Ton)
AO	2	A002	Total Plant Power Consumption (kW)	0.0 to 3200.0 (kW)
AO	3	A003	CHWS Temp	-200.0 to 500.0 (°F or °C)
AO	4	A004	CHWR Temp	
AO	5	A005	cw Inlet Temp	
AO	6	A006	cw Outlet Temp	
AO	7	A007	Dry Bulb Air Temp	
AO	8	A008	Relative Humidity	0.0 to 100.0 (%)
AO	9	A009	CHWP DP	0.0 to 3200.0 (psi, ft, kPa, or m)
AO	10	A010	CWP DP	
AO	11	A011	Zone 1 PV	-3200.0 to 3200.0 (psi, ft, kPa, m, °F or °C)
AO	12	A012	Zone 1 Error	
AO	13	A013	Zone 2 PV	
AO	14	A014	Zone 2 Error	
AO	15	A015	Zone 3 PV	
AO	16	A016	Zone 3 Error	
AO	17	A017	Zone 4 PV	
AO	18	A018	Zone 4 Error	
AO	19	A019	Zone 5 PV	
AO	20	A020	Zone 5 Error	
AO	21	A021	Zone 6 PV	
AO	22	A022	Zone 6 Error	
AO	23	A023	Zone 7 PV	
AO	24	A024	Zone 7 Error	
AO	25	A025	Zone 8 PV	
AO	26	A026	Zone 8 Error	
AO	27	A027	Zone 9 PV	
AO	28	A028	Zone 9 Error	
AO	29	A029	Zone 10 PV	
AO	30	A030	Zone 10 Error	
AO	31	A031	Zone 11 PV	
AO	32	A032	Zone 11 Error	
AO	33	A033	Zone 12 PV	
AO	34	A034	Zone 12 Error	
AO	35	A035	CHW Pump 1 Drive Power	0.0 to 3200.0 (kW)
AO	36	A036	CHW Pump 1 Drive Volt AC	0.0 to 1000.0 (VAC)
AO	37	A037	CHW Pump 1 Drive Amp	0.0 to 3200.0 (Amp)
AO	38	A038	CHW Pump 1 Speed Reference	0.0 to 100.0 (%)
AO	39	A039	CHW Pump 1 Drive Speed Feedback	
AO	40	A040	CHW Pump 2 Drive Power	0.0 to 3200.0 (kW)
AO	41	A041	CHW Pump 2 Drive Volt AC	0.0 to 1000.0 (VAC)
AO	42	A042	CHW Pump 2 Drive Amp	0.0 to 3200.0 (Amp)
AO	43	A043	CHW Pump 2 Speed Reference	0.0 to 100.0 (%)
AO	44	A044	CHW Pump 2 Drive Speed Feedback	

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE (UNITS)
AO	45	A045	CHW Pump 3 Drive Power	0.0 to 3200.0 (kW)
AO	46	A046	CHW Pump 3 Drive Volt ac	0.0 to 1000.0 (VAC)
AO	47	A047	CHW Pump 3 Drive Amp	0.0 to 3200.0 (Amp)
AO	48	A048	CHW Pump 3 Speed Reference	0.0 to 100.0 (%)
AO	49	A049	CHW Pump 3 Drive Speed Feedback	
AO	50	A050	CHW Pump 4 Drive Power	0.0 to 3200.0 (kW)
AO	51	A051	CHW Pump 4 Drive Volt ac	0.0 to 1000.0 (VAC)
AO	52	A052	CHW Pump 4 Drive Amp	0.0 to 3200.0 (Amp)
AO	53	A053	CHW Pump 4 Speed Reference	0.0 to 100.0 (%)
AO	54	A054	CHW Pump 4 Drive Speed Feedback	
AO	55	A055	CHW Pump 5 Drive Power	0.0 to 3200.0 (kW)
AO	56	A056	CHW Pump 5 Drive Volt ac	0.0 to 1000.0 (VAC)
AO	57	A057	CHW Pump 5 Drive Amp	0.0 to 3200.0 (Amp)
AO	58	A058	CHW Pump 5 Speed Reference	0.0 to 100.0 (%)
AO	59	A059	CHW Pump 5 Drive Speed Feedback	
AO	60	A060	cw Pump 1 Drive Power	0.0 to 3200.0 (kW)
AO	61	A061	cw Pump 1 Drive Volt AC	0.0 to 1000.0 (VAC)
AO	62	A062	cw Pump 1 Drive Amp	0.0 to 3200.0 (Amp)
AO	63	A063	cw Pump 1 Speed Reference	0.0 to 100.0 (%)
AO	64	A064	cw Pump 1 Drive Speed Feedback	
AO	65	A065	cw Pump 2 Drive Power	0.0 to 3200.0 (kW)
AO	66	A066	cw Pump 2 Drive Volt ac	0.0 to 1000.0 (VAC)
AO	67	A067	cw Pump 2 Drive Amp	0.0 to 3200.0 (Amp)
AO	68	A068	cw Pump 2 Speed Reference	0.0 to 100.0 (%)
AO	69	A069	cw Pump 2 Drive Speed Feedback	
AO	70	A070	cw Pump 3 Drive Power	0.0 to 3200.0 (kW)
AO	71	A071	cw Pump 3 Drive Volt ac	0.0 to 1000.0 (VAC)
AO	72	A072	cw Pump 3 Drive Amp	0.0 to 3200.0 (Amp)
AO	73	A073	cw Pump 3 Speed Reference	0.0 to 100.0 (%)
AO	74	A074	cw Pump 3 Drive Speed Feedback	
AO	75	A075	cw Pump 4 Drive Power	0.0 to 3200.0 (kW)
AO	76	A076	cw Pump 4 Drive Volt ac	0.0 to 1000.0 (VAC)
AO	77	A077	cw Pump 4 Drive Amp	0.0 to 3200.0 (Amp)
AO	78	A078	cw Pump 4 Speed Reference	0.0 to 100.0 (%)
AO	79	A079	cw Pump 4 Drive Speed Feedback	
AO	80	A080	cw Pump 5 Drive Power	0.0 to 3200.0 (kW)
AO	81	A081	cw Pump 5 Drive Volt ac	0.0 to 1000.0 (VAC)
AO	82	A082	cw Pump 5 Drive Amp	0.0 to 3200.0 (Amp)
AO	83	A083	cw Pump 5 Speed Reference	0.0 to 100.0 (%)
AO	84	A084	cw Pump 5 Drive Speed Feedback	
AO	85	A085	Tower 1 Fan Drive Power	0.0 to 3200.0 (kW)
AO	86	A086	Tower 1 Fan Drive Volt AC	0.0 to 1000.0 (VAC)
AO	87	A087	Tower 1 Fan Drive Amp	0.0 to 3200.0 (Amp)
AO	88	A088	Tower 1 Fan Speed Reference	0.0 to 100.0 (%)
AO	89	A089	Tower 1 Fan Drive Speed Feedback	

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE (UNITS)
AO	90	A090	Tower 2 Fan Drive Power	0.0 to 3200.0 (kW)
AO	91	A091	Tower 2 Fan Drive Volt AC	0.0 to 1000.0 (VAC)
AO	92	A092	Tower 2 Fan Drive Amp	0.0 to 3200.0 (Amp)
AO	93	A093	Tower 2 Fan Speed Reference	0.0 to 100.0 (%)
AO	94	A094	Tower 2 Fan Drive Speed Feedback	
AO	95	A095	Tower 3 Fan Drive Power	0.0 to 3200.0 (kW)
AO	96	A096	Tower 3 Fan Drive Volt AC	0.0 to 1000.0 (VAC)
AO	97	A097	Tower 3 Fan Drive Amp	0.0 to 3200.0 (Amp)
AO	98	A098	Tower 3 Fan Speed Reference	0.0 to 100.0 (%)
AO	99	A099	Tower 3 Fan Drive Speed Feedback	
AO	100	A100	Tower 4 Fan Drive Power	0.0 to 3200.0 (kW)
AO	101	A101	Tower 4 Fan Drive Volt AC	0.0 to 1000.0 (VAC)
AO	102	A102	Tower 4 Fan Drive Amp	0.0 to 3200.0 (Amp)
AO	103	A103	Tower 4 Fan Speed Reference	0.0 to 100.0 (%)
AO	104	A104	Tower 4 Fan Drive Speed Feedback	
AO	105	A105	Tower 5 Fan Drive Power	0.0 to 3200.0 (kW)
AO	106	A106	Tower 5 Fan Drive Volt AC	0.0 to 1000.0 (VAC)
AO	107	A107	Tower 5 Fan Drive Amp	0.0 to 3200.0 (Amp)
AO	108	A108	Tower 5 Fan Speed Reference	0.0 to 100.0 (%)
AO	109	A109	Tower 5 Fan Drive Speed Feedback	
AO	110	A110	Chiller 1 Leaving CHW Temperature	-200.0 to 500.0 (°F or °C)
AO	111	A111	Chiller 1 Entering CHW Temperature	-200.0 to 500.0 (°F or °C)
AO	112	A112	Chiller 1 Leaving CW Temperature	
AO	113	A113	Chiller 1 Entering CW Temperature	
AO	114	A114	Chiller 1 Power	0.0 to 3200.0 (kW)
AO	115	A115	Chiller 2 Leaving CHW Temperature	-200.0 to 500.0 (°F or °C)
AO	116	A116	Chiller 2 Entering CHW Temperature	
AO	117	A117	Chiller 2 Leaving CW Temperature	
AO	118	A118	Chiller 2 Entering CW Temperature	0.0 to 3200.0 (kW)
AO	119	A119	Chiller 2 Power	
AO	120	A120	Chiller 3 Leaving CHW Temperature	-200.0 to 500.0 (°F or °C)
AO	121	A121	Chiller 3 Entering CHW Temperature	
AO	122	A122	Chiller 3 Leaving CW Temperature	
AO	123	A123	Chiller 3 Entering CW Temperature	0.0 to 3200.0 (kW)
AO	124	A124	Chiller 3 Power	
AO	125	A125	Chiller 4 Leaving CHW Temperature	-200.0 to 500.0 (°F or °C)
AO	126	A126	Chiller 4 Entering CHW Temperature	
AO	127	A127	Chiller 4 Leaving CW Temperature	
AO	128	A128	Chiller 4 Entering CW Temperature	0.0 to 3200.0 (kW)
AO	129	A129	Chiller 4 Power	
AO	130	A130	Chiller 5 Leaving CHW Temperature	-200.0 to 500.0 (°F or °C)
AO	131	A131	Chiller 5 Entering CHW Temperature	
AO	132	A132	Chiller 5 Leaving CW Temperature	
AO	133	A133	Chiller 5 Entering CW Temperature	



SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE (UNITS)
AO	134	A134	Chiller 5 Power	0.0 to 3200.0 (kW)
AO	135	A135	Chillers Total Power	0.0 to 3200.0 (kW)
AO	136	A136	CHW Pump Total Power	
AO	137	A137	cw Pump Total Power	
AO	138	A138	Tower Fan Total Power	
AO	139	A139		
AO	140	A140		
AO	141	A141		
AO	142	A142		
AO	143	A143		
AO	144	A144		
AO	145	A145		
AO	146	A146		
AO	147	A147		
AO	148	A148		
AO	149	A149		
AO	150	A150		
AI	151	A151	Zone 1 Setpoint	0.0 to 3200.0 (psi, ft, kPa, m, °F or °C)
AI	152	A152	Zone 2 Setpoint	
AI	153	A153	Zone 3 Setpoint	
AI	154	A154	Zone 4 Setpoint	
AI	155	A155	Zone 5 Setpoint	
AI	156	A156	Zone 6 Setpoint	
AI	157	A157	Zone 7 Setpoint	
AI	158	A158	Zone 8 Setpoint	
AI	159	A159	Zone 9 Setpoint	
AI	160	A160	Zone 10 Setpoint	
AI	161	A161	Zone 11 Setpoint	
AI	162	A162	Zone 12 Setpoint	
AI	163	A163	CHW Pump 1 Hand Speed	0.0 to 100.0 (%)
AI	164	A164	CHW Pump 2 Hand Speed	
AI	165	A165	CHW Pump 3 Hand Speed	
AI	166	A166	CHW Pump 4 Hand Speed	
AI	167	A167	CHW Pump 5 Hand Speed	
AI	168	A168	cw Pump 1 Hand Speed	0.0 to 100.0 (%)
AI	169	A169	cw Pump 2 Hand Speed	
AI	170	A170	cw Pump 3 Hand Speed	
AI	171	A171	cw Pump 4 Hand Speed	
AI	172	A172	cw Pump 5 Hand Speed	
AI	173	A173	Tower 1 Fan Hand Speed	0.0 to 100.0 (%)
AI	174	A174	Tower 2 Fan Hand Speed	
AI	175	A175	Tower 3 Fan Hand Speed	
AI	176	A176	Tower 4 Fan Hand Speed	
AI	177	A177	Tower 5 Fan Hand Speed	

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SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE (UNITS)
AI	178	A178	CHW Bypass Valve Position	0.0 to 100.0 (%)
AI	179	A179	cW Bypass Valve Position	
AI	180	A180	BAS Outside Air Temp	-200.0 to 500.0 (°F or °C)
AI	181	A181	BAS Relative Humidity	0.0 to 100.0 (%)
AI	182	A182	BAS Zone 1 PV	0.0 to 3200.0 (psi, ft, kPa, m, °F or °C)
AI	183	A183	BAS Zone 2 PV	
AI	184	A184	BAS Zone 3 PV	
AI	185	A185	BAS Zone 4 PV	
AI	186	A186	BAS Zone 5 PV	
AI	187	A187	BAS Zone 6 PV	
AI	188	A188	BAS Zone 7 PV	
AI	189	A189	BAS Zone 8 PV	
AI	190	A190	BAS Zone 9 PV	
AI	191	A191	BAS Zone 10 PV	
AI	192	A192	BAS Zone 11 PV	
AI	193	A193	BAS Zone 12 PV	
AI	194	A194	Cooling Valve Max Valve Opening	0.0 to 100.0 (%)
AI	195	A195	Indoor RH	
AI	196	A196		
AI	197	A197		
AI	198	A198		
AI	199	A199		
AI	200	A200		

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE (UNITS)
AO	1001	I1001	CHWP Flow	0 to 32000 (usgpm/ lps, or m3/hr)
AO	1002	I1002	CWP Flow	
AO	1003	I1003	CHW Distribution Flow	
AO	1004	I1004	CHW Bypass Flow	
AO	1005	I1005	CHW Pump 1 Run Hours	0 to 999 (Hours)
AO	1006	I1006	CHW Pump 1 Run KHrs	0 to 32000 (kHours)
AO	1007	I1007	CHW Pump 1 Duty Standby	0 to 7 (Note 1)
AO	1008	I1008	CHW Pump 1 Mode	1 to 3 (Note 2)
AO	1009	I1009	CHW Pump 1 Status	0 to 2 (Note 6)
AO	1010	I1010	CHW Pump 2 Run Hours	0 to 999 (Hours)
AO	1011	I1011	CHW Pump 2 Run KHrs	0 to 32000 (kHours)
AO	1012	I1012	CHW Pump 2 Duty Standby	0 to 7 (Note 1)
AO	1013	I1013	CHW Pump 2 Mode	1 to 3 (Note 2)
AO	1014	I1014	CHW Pump 2 Status	0 to 2 (Note 6)
AO	1015	I1015	CHW Pump 3 Run Hours	0 to 999 (Hours)
AO	1016	I1016	CHW Pump 3 Run KHrs	0 to 32000 (kHours)
AO	1017	I1017	CHW Pump 3 Duty Standby	0 to 7 (Note 1)

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE (UNITS)
AO	1018	I1018	CHW Pump 3 Mode	1 to 3 (Note 2)
AO	1019	I1019	CHW Pump 3 Status	0 to 2 (Note 6)
AO	1020	I1020	CHW Pump 4 Run Hours	0 to 999 (Hours)
AO	1021	I1021	CHW Pump 4 Run KHrs	0 to 32000 (kHours)
AO	1022	I1022	CHW Pump 4 Duty Standby	0 to 7 (Note 1)
AO	1023	I1023	CHW Pump 4 Mode	1 to 3 (Note 2)
AO	1024	I1024	CHW Pump 4 Status	0 to 2 (Note 6)
AO	1025	I1025	CHW Pump 5 Run Hours	0 to 999 (Hours)
AO	1026	I1026	CHW Pump 5 Run KHrs	0 to 32000 (kHours)
AO	1027	I1027	CHW Pump 5 Duty Standby	0 to 7 (Note 1)
AO	1028	I1028	CHW Pump 5 Mode	1 to 3 (Note 2)
AO	1029	I1029	CHW Pump 5 Status	0 to 2 (Note 6)
AO	1030	I1030	cw Pump 1 Run Hours	0 to 999 (Hours)
AO	1031	I1031	cw Pump 1 Run KHrs	0 to 32000 (kHours)
AO	1032	I1032	cw Pump 1 Duty Standby	0 to 7 (Note 1)
AO	1033	I1033	cw Pump 1 Mode	1 to 3 (Note 2)
AO	1034	I1034	cw Pump 1 Status	0 to 2 (Note 6)
AO	1035	I1035	cw Pump 2 Run Hours	0 to 999 (Hours)
AO	1036	I1036	cw Pump 2 Run KHrs	0 to 32000 (kHours)
AO	1037	I1037	cw Pump 2 Duty Standby	0 to 7 (Note 1)
AO	1038	I1038	cw Pump 2 Mode	1 to 3 (Note 2)
AO	1039	I1039	cw Pump 2 Status	0 to 2 (Note 6)
AO	1040	I1040	cw Pump 3 Run Hours	0 to 999 (Hours)
AO	1041	I1041	cw Pump 3 Run KHrs	0 to 32000 (kHours)
AO	1042	I1042	cw Pump 3 Duty Standby	0 to 7 (Note 1)
AO	1043	I1043	cw Pump 3 Mode	1 to 3 (Note 2)
AO	1044	I1044	cw Pump 3 Status	0 to 2 (Note 6)
AO	1045	I1045	cw Pump 4 Run Hours	0 to 999 (Hours)
AO	1046	I1046	cw Pump 4 Run KHrs	0 to 32000 (kHours)
AO	1047	I1047	cw Pump 4 Duty Standby	0 to 7 (Note 1)
AO	1048	I1048	cw Pump 4 Mode	1 to 3 (Note 2)
AO	1049	I1049	cw Pump 4 Status	0 to 2 (Note 6)
AO	1050	I1050	cw Pump 5 Run Hours	0 to 999 (Hours)
AO	1051	I1051	cw Pump 5 Run KHrs	0 to 32000 (kHours)
AO	1052	I1052	cw Pump 5 Duty Standby	0 to 7 (Note 1)
AO	1053	I1053	cw Pump 5 Mode	1 to 3 (Note 2)
AO	1054	I1054	cw Pump 5 Status	0 to 2 (Note 6)
AO	1055	I1055	Tower 1 Fan Run Hours	0 to 999 (Hours)
AO	1056	I1056	Tower 1 Fan Run KHrs	0 to 32000 (kHours)
AO	1057	I1057	Tower 1 Fan Mode	1 to 3 (Note 2)
AO	1058	I1058	Tower 1 Fan Status	0 to 2 (Note 6)
AO	1059	I1059	Tower 2 Fan Run Hours	0 to 999 (Hours)
AO	1060	I1060	Tower 2 Fan Run KHrs	0 to 32000 (kHours)
AO	1061	I1061	Tower 2 Fan Mode	1 to 3 (Note 2)
AO	1062	I1062	Tower 2 Fan Status	0 to 2 (Note 6)

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE (UNITS)
AO	1063	11063	Tower 3 Fan Run Hours	0 to 999 (Hours)
AO	1064	11064	Tower 3 Fan Run KHrs	0 to 32000 (kHours)
AO	1065	11065	Tower 3 Fan Mode	1 to 3 (Note 2)
AO	1066	11066	Tower 3 Fan Status	0 to 2 (Note 6)
AO	1067	11067	Tower 4 Fan Run Hours	0 to 999 (Hours)
AO	1068	11068	Tower 4 Fan Run KHrs	0 to 32000 (kHours)
AO	1069	11069	Tower 4 Fan Mode	1 to 3 (Note 2)
AO	1070	11070	Tower 4 Fan Status	0 to 2 (Note 6)
AO	1071	11071	Tower 5 Fan Run Hours	0 to 999 (Hours)
AO	1072	11072	Tower 5 Fan Run KHrs	0 to 32000 (kHours)
AO	1073	11073	Tower 5 Fan Mode	1 to 3 (Note 2)
AO	1074	11074	Tower 5 Fan Status	0 to 2 (Note 6)
AO	1075	11075	Chlr 1 cHW Isolation Valve Status	1 to 5 (Note 3)
AO	1076	11076	Chlr 2 cHW Isolation Valve Status	1 to 5 (Note 3)
AO	1077	11077	Chlr 3 cHW Isolation Valve Status	1 to 5 (Note 3)
AO	1078	11078	Chlr 4 cHW Isolation Valve Status	1 to 5 (Note 3)
AO	1079	11079	Chlr 5 cHW Isolation Valve Status	1 to 5 (Note 3)
AO	1080	11080	Chlr 1 cw Isolation Valve Status	1 to 5 (Note 3)
AO	1081	11081	Chlr 2 cw Isolation Valve Status	1 to 5 (Note 3)
AO	1082	11082	Chlr 3 cw Isolation Valve Status	1 to 5 (Note 3)
AO	1083	11083	Chlr 4 cw Isolation Valve Status	1 to 5 (Note 3)
AO	1084	11084	Chlr 5 cw Isolation Valve Status	1 to 5 (Note 3)
AO	1085	11085	Tower 1 Isolation Valve Status	1 to 5 (Note 3)
AO	1086	11086	Tower 2 Isolation Valve Status	1 to 5 (Note 3)
AO	1087	11087	Tower 3 Isolation Valve Status	1 to 5 (Note 3)
AO	1088	11088	Tower 4 Isolation Valve Status	1 to 5 (Note 3)
AO	1089	11089	Tower 5 Isolation Valve Status	1 to 5 (Note 3)
AO	1090	11090	Total Chiller Capacity (Tons)	0 to 32000 (Tons)
AO	1091	11091	Total Chiller Min Flow	0 to 32000 (usgpm/ lps, or m <sup>3</sup> /hr)
AO	1092	11092	Total Chiller Max Flow	0 to 32000 (usgpm/ lps, or m <sup>3</sup> /hr)
AO	1093	11093	Chiller 1 Duty	0 to 5 (Note 4)
AO	1094	11094	Chiller 1 Mode	1 to 3 (Note 2)
AO	1095	11095	Chiller 1 Status	0 to 5 (Note 5)
AO	1096	11096	Chiller 1 Run Hours	0 to 999 (Hours)
AO	1097	11097	Chiller 1 Run KHrs	0 to 32000 (kHours)
AO	1098	11098	Chiller 2 Duty	0 to 5 (Note 4)
AO	1099	11099	Chiller 2 Mode	1 to 3 (Note 2)
AO	1100	11100	Chiller 2 Status	0 to 5 (Note 5)
AO	1101	11101	Chiller 2 Run Hours	0 to 999 (Hours)
AO	1102	11102	Chiller 2 Run KHrs	0 to 32000 (kHours)
AO	1103	11103	Chiller 3 Duty	0 to 5 (Note 4)
AO	1104	11104	Chiller 3 Mode	1 to 3 (Note 2)
AO	1105	11105	Chiller 3 Status	0 to 5 (Note 5)
AO	1106	11106	Chiller 3 Run Hours	0 to 999 (Hours)
AO	1107	11107	Chiller 3 Run KHrs	0 to 32000 (kHours)

SIGNAL TYPE	INSTANCE	NAME	DESCRIPTION	RANGE (UNITS)
AO	1108	I1108	Chiller 4 Duty	0 to 5 (Note 4)
AO	1109	I1109	Chiller 4 Mode	1 to 3 (Note 2)
AO	1110	I1110	Chiller 4 Status	0 to 5 (Note 5)
AO	1111	I1111	Chiller 4 Run Hours	0 to 999 (Hours)
AO	1112	I1112	Chiller 4 Run KHrs	0 to 32000 (kHours)
AO	1113	I1113	Chiller 5 Duty	0 to 5 (Note 4)
AO	1114	I1114	Chiller 5 Mode	1 to 3 (Note 2)
AO	1115	I1115	Chiller 5 Status	0 to 5 (Note 5)
AO	1116	I1116	Chiller 5 Run Hours	0 to 999 (Hours)
AO	1117	I1117	Chiller 5 Run KHrs	0 to 32000 (kHours)
AO	1118	I1118	Tower 1 Duty	0 to 5 (Note 7)
AO	1119	I1119	Tower 2 Duty	0 to 5 (Note 7)
AO	1120	I1120	Tower 3 Duty	0 to 5 (Note 7)
AO	1121	I1121	Tower 4 Duty	0 to 5 (Note 7)
AO	1122	I1122	Tower 5 Duty	0 to 5 (Note 7)
AO	1123	I1123		
AO	1124	I1124		
AO	1125	I1125		
AO	1126	I1126		

**NOTE :** Multistate Data Explanation

1 Pump Duty Standby	2 Pump and Fan Mode	3 Isolation Valve Status	4 Chiller Duty	5 Chiller State	6 Pump and Fan Status	7 Tower Duty
0 = N/A	1 = Hand	1 = Closed	0 = N/A	0 = Not Ready	0 = Off	0 = N/A
1 = Duty 1	2 = Off	2 = Closing	1 = Lead	1 = Ready	1 = Running	1 = Duty 1
2 = Duty 2	3 = Auto	3 = Opening	2 = Lag 1	2 = Enabled	2 = Alarm	2 = Duty 2
3 = Duty 3		4 = Opened	3 = Lag 2	3 = Started		3 = Duty 3
4 = Duty 4		5 = Alarm	4 = Lag 3	4 = Running		4 = Duty 4
5 = Duty 5			5 = Lag 4	5 = Shutting Down (Running)		5 = Duty 5
6 = Standby				6 = Shutting Down (Stopped)		
7 = Duty				7 = Alarm		

\* For pump points labeled 1/1A: 1 references the single pump while 1A references side A of a dualArm/Twin pump

\*\* For Pump Duty Standby: 1 refers to the pump (single/dualArm/Twin). A/B refer to each side of the dualArm/Twin pump and are not used for single pumps

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