

Data point list Modbus/TCP X-CUBE Control

D: important data points

S: system specific data points

default BACnet Device ID: 105001

no.	D/S	group	object name	description	R/W	unit	object type	values	object instance
2	D	system data	bInResetErrors	reset all errors	W		4 (BO)	ACTIVE = reset	2
5	D	system data	eInSystemMode	AHU operation mode	W	(95)	1 (AO)	0 = off; 1 = manual mode; 2 = auto mode	5
6	S	system data	fInMeasTempOutdoor	send present value outdoor temperature to local PLC	W	°C (62)	1 (AO)		6
8	D	setpoints	fInSPFanSUP	setpoint of the supply air fan, unit depends on control strategy	W	(95)	1 (AO)		8
9	D	setpoints	fInSPFanETA	setpoint of the extract air fan, unit depends on control strategy	W	(95)	1 (AO)		9
10	D	setpoints	fInSPTempMin	setpoint of the min. air temperature	W	°C (62)	1 (AO)		10
11	D	setpoints	fInSPTempMax	setpoint of the max. air temperature	W	°C (62)	1 (AO)		11
12	S	setpoints	fInSPHumMin	setpoint of the min. air humidity	W	g/kg (28)	1 (AO)		12
13	S	setpoints	fInSPHumMax	setpoint of the max. air humidity	W	g/kg (28)	1 (AO)		13
17	S	settings	fInSPTempSUPMin	setpoint of the min. supply air temperature	W	°C (62)	1 (AO)		14
18	S	settings	fInSPTempSUPMax	setpoint of the max. supply air temperature	W	°C (62)	1 (AO)		15
19	S	settings	fInSPHumSUPMin	setpoint of the min. supply air humidity	W	g/kg (28)	1 (AO)		16
20	S	settings	fInSPHumSUPMax	setpoint of the max. supply air humidity	W	g/kg (28)	1 (AO)		17
24	S	system data	bOutVoltageError	voltage error	R		3 (BI)	ACTIVE = ok	395
25	S	system data	bOutMainFuseError	main fuse error	R		3 (BI)	ACTIVE = ok	396
26	S	system data	bOutFireAlarm	error triggered fire alarm	R		3 (BI)	ACTIVE = ok	397
28	S	system data	bOutFrostProtection	error triggered frost protection	R		3 (BI)	ACTIVE = ok	398
29	D	system data	eOutEventNotification	notification of alarm class	R	(95)	0 (AI)	0 = no alarm; 1 = warning (B-alarm); 2 = critical (A-alarm)	1
30	S	system data	fOutPVTempOutdoor	present value outdoor air temperature	R	°C (62)	0 (AI)		0
57	S	measurement data	fOutPVTempODA	present value outdoor air temperature	R	°C (62)	0 (AI)		2
58	S	measurement data	fOutPVTempSUP	present value supply air temperature	R	°C (62)	0 (AI)		3
59	S	measurement data	fOutPVTempETA	present value extracted air temperature	R	°C (62)	0 (AI)		4
69	S	measurement data	fOutPVTempRoom1	present value room temperature 1	R	°C (62)	0 (AI)		20
70	S	measurement data	fOutPVTempRoom2	present value room temperature 2	R	°C (62)	0 (AI)		21
71	S	measurement data	fOutPVTempRoom3	present value room temperature 3	R	°C (62)	0 (AI)		22
72	S	measurement data	fOutPVTempRoom4	present value room temperature 4	R	°C (62)	0 (AI)		23
73	S	measurement data	fOutPVTempRoom5	present value room temperature 5	R	°C (62)	0 (AI)		24
74	S	measurement data	fOutPVTempRoom6	present value room temperature 6	R	°C (62)	0 (AI)		25
75	S	measurement data	fOutPVTempRoom7	present value room temperature 7	R	°C (62)	0 (AI)		26
76	S	measurement data	fOutPVTempRoom8	present value room temperature 8	R	°C (62)	0 (AI)		27
77	S	measurement data	fOutPVTempRoomMean	mean value of all room temperatures	R	°C (62)	0 (AI)		28
78	S	cooler	bOutCoolerMotorProtection	error motor protection cooler pump	R		3 (BI)	ACTIVE = ok	400
80	S	cooler	bOutCoolerCtrlPumpON	controlled value to switch on/off the cooler pump	R		3 (BI)	ACTIVE = on	402
81	S	cooler	fOutCoolerPVValvePos	current position of the cooler valve	R	% (98)	0 (AI)		29
82	S	cooler	fOutCoolerPVInletTemp	present value of the cooler inlet temperature	R	°C (62)	0 (AI)		31

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84	S	preheater	bOutPreheaterMotorProtection	error motor protection preheater pump	R		3 (BI)	ACTIVE = ok	403
86	S	preheater	bOutPreheaterCtrlPumpON	controlled value to switch on/off the preheater pump	R		3 (BI)	ACTIVE = on	405
87	S	preheater	fOutPreheaterPVValvePos	current position of the preheater valve	R	% (98)	0 (AI)		32
88	S	preheater	fOutPreheaterPVReturnTemp	present value of the preheater outlet temperature	R	°C (62)	0 (AI)		34
90	S	reheater	bOutReheaterMotorProtection	error motor protection reheater pump	R		3 (BI)	ACTIVE = ok	406
92	S	reheater	bOutReheaterCtrlPumpON	controlled value to switch on/off the reheater pump	R		3 (BI)	ACTIVE = on	408
93	S	reheater	fOutReheaterPVValvePos	current position of the reheater valve	R	% (98)	0 (AI)		35
94	S	reheater	fOutReheaterPVReturnTemp	present value of the reheater outlet temperature	R	°C (62)	0 (AI)		37
110	S	damper	fOutDamperODAPVPos	current position of the outdoor air damper	R	% (98)	0 (AI)		38
111	S	damper	fOutDamperSUPPVPos	current position of the supply air damper	R	% (98)	0 (AI)		39
112	S	damper	fOutDamperETAPVPos	current position of the extract air damper	R	% (98)	0 (AI)		40
113	S	damper	fOutDamperEHAPVPos	current position of the exhaust air damper	R	% (98)	0 (AI)		41
114	S	damper	fOutDamperRCAPVPos	current position of the recovery air damper	R	% (98)	0 (AI)		50
124	S	damper	fOutDamperODACtrlPos	controlled value of the outdoor air damper position	R	% (98)	0 (AI)		52
125	S	damper	fOutDamperSUPCtrlPos	controlled value of the supply air damper position	R	% (98)	0 (AI)		53
126	S	damper	fOutDamperETACtrlPos	controlled value of the extract air damper position	R	% (98)	0 (AI)		54
127	S	damper	fOutDamperEHACtrlPos	controlled value of the exhaust air damper position	R	% (98)	0 (AI)		55
128	S	damper	fOutDamperRCACtrlPos	controlled value of the recovery air damper position	R	% (98)	0 (AI)		64
140	S	supply air fan	bOutFanSUPInErr	internal error of the supply air fan	R		3 (BI)	ACTIVE = ok	491
143	S	supply air fan	bOutFanSUPCtrlON	controlled value to switch on/off the supply air fan	R		3 (BI)	ACTIVE = on	527
150	S	supply air fan	fOutFanSUPCtrlSpeed	controlled value of the supply air fan speed [0..100%]	R	% (98)	0 (AI)		66
151	S	supply air fan	fOutFanSUPPVdp	present value supply air fan diff. pressure	R	Pa (53)	0 (AI)		70
152	S	supply air fan	fOutFanSUPPVAirflow	present value supply airflow	R	m³/h (135)	0 (AI)		74
158	S	extract air fan	bOutFanETAInErr	internal error of the extract air fan	R		3 (BI)	ACTIVE = ok	507
161	S	extract air fan	bOutFanETACtrlON	controlled value to switch on/off the extract air fan	R		3 (BI)	ACTIVE = on	543
168	S	extract air fan	fOutFanETACtrlSpeed	controlled value of the extract air fan speed [0..100%]	R	% (98)	0 (AI)		68
169	S	extract air fan	fOutFanETAPVdp	present value extract air fan diff. pressure	R	Pa (53)	0 (AI)		72
170	S	extract air fan	fOutFanETAPVAirflow	present value extract airflow	R	m³/h (135)	0 (AI)		76
174	S	filter	bOutFilterODACHangeErr	error outdoor air filter change required	R		3 (BI)	ACTIVE = ok	559
175	S	filter	bOutFilterSUPChangeErr	error supply air filter change required	R		3 (BI)	ACTIVE = ok	560
176	S	filter	bOutFilterETACHangeErr	error extract air filter change required	R		3 (BI)	ACTIVE = ok	561
186	S	filter	fOutFilterODAHoldingTime	holding time outdoor air filter (in hour)	R	h (71)	0 (AI)		78
187	S	filter	fOutFilterSUPHoldingTime	holding time supply air filter (in hour)	R	h (71)	0 (AI)		79
188	S	filter	fOutFilterETAHoldingTime	holding time extract air filter (in hour)	R	h (71)	0 (AI)		80
192	S	filter	fOutFilterODAPVdp	present value outdoor air filter diff. pressure	R	h (71)	0 (AI)		84
193	S	filter	fOutFilterSUPPVdp	present value supply air filter diff. pressure	R	h (71)	0 (AI)		85
194	S	filter	fOutFilterETAPVdp	present value extract air filter diff. pressure	R	h (71)	0 (AI)		86
207	S	plate heat exchanger	fOutPlatehexDamperPVPos	current position bypass plate heat exchanger	R	% (98)	0 (AI)		99

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209	S	plate heat exchanger	fOutPlatehexPVdp	present value plate heat exchanger diff. pressure	R	Pa (53)	0 (AI)		96
210	S	plate heat exchanger	fOutPlatehexDamperCtrlPos	controlled value bypass plate heat exchanger	R	% (98)	0 (AI)		97
214	S	rotary heat exchanger	bOutRotHexCtrlRel	controlled value to release the heat recovery wheel	R		3 (BI)	ACTIVE = ok	576
215	S	rotary heat exchanger	fOutRothexCtrl	controlled value heat recovery wheel speed	R	% (98)	0 (AI)		101
230	S	current operation mode	eOutPVOperationMode	current operation mode of the air handling unit.	R	(95)	0 (AI)	0 = off; 1 = standby; 2 = control; 3 = freeze protection; 4 = deicing; 5 = startup; 6 = shutdown; 7 = manual; 8 = nightpurge; 9 = intermittent Operation; 10 = cooling protection; 11 = fire protection	104
768	S	electric preheater	bOutPreEheaterCtrlON	controlled value operation signal of the electric preheater	R		3 (BI)	ACTIVE = on	626
769	S	electric preheater	fOutPreEheaterCtrlPower	controlled value of the electric preheater power [0..100%]	R	% (98)	0 (AI)		124
773	S	electric reheater	bOutReEheaterCtrlON	controlled value operation signal of the electric reheater	R		3 (BI)	ACTIVE = on	630
774	S	electric reheater	fOutReEheaterCtrlPower	controlled value of the electric reheater power [0..100%]	R	% (98)	0 (AI)		125
775	S	external chiller	bOutExternalChillerError	ext. chiller error	R		3 (BI)	ACTIVE = ok	631
776	S	external chiller	bOutExternalChillerPVON	ext. chiller operating	R		3 (BI)	ACTIVE = on	632
777	S	external chiller	bOutExternalChillerCtrlON	controlled value operation signal of the ext. chiller	R		3 (BI)	ACTIVE = on	633
778	S	external chiller	fOutExternalChillerCtrlPower	controlled value of the ext. chiller power [0..100%]	R	% (98)	0 (AI)		126
780	S	humidifier	bOutHumidifierError	humidifier error	R		3 (BI)	ACTIVE = ok	634
781	S	humidifier	bOutHumidifierPVON	humidifier operating	R		3 (BI)	ACTIVE = on	635
785	S	humidifier	bOutHumidifierCtrlOn	controlled value operation signal of the humidifier	R		3 (BI)	ACTIVE = on	639
786	S	humidifier	fOutHumidifierCtrlPower	controlled value of the humidifier power [0..100%]	R	% (98)	0 (AI)		127
787	S	heat pump 1	bOutHeatPumpError1	heatpump 1 error	R		3 (BI)	ACTIVE = ok	641
788	S	heat pump 1	bOutHeatPumpPVDecing1	heatpump 1 deicing	R		3 (BI)	ACTIVE = active	644
789	S	heat pump 1	bOutHeatPumpPVHeating1	heatpump 1 heating	R		3 (BI)	ACTIVE = active	642
790	S	heat pump 1	bOutHeatPumpPVOperation1	heatpump 1 operating	R		3 (BI)	ACTIVE = active	643
791	S	heat pump 1	bOutHeatPumpCtrlCooling1	controlled value cooling signal of the heatpump 1	R		3 (BI)	ACTIVE = on	646
792	S	heat pump 1	bOutHeatPumpCtrlHeating1	controlled value heating signal of the heatpump 1	R		3 (BI)	ACTIVE = on	645
793	S	heat pump 1	bOutHeatPumpCtrlRelease1	controlled value operation signal of the heatpump 1	R		3 (BI)	ACTIVE = on	647
794	S	heat pump 1	fOutHeatPumpCtrlPower1	controlled value of the heatpump 1 power [0..100%]	R	% (98)	0 (AI)		128
795	S	heat pump 2	bOutHeatPumpError2	heatpump 2 error	R		3 (BI)	ACTIVE = ok	648
796	S	heat pump 2	bOutHeatPumpPVDecing2	heatpump 2 deicing	R		3 (BI)	ACTIVE = active	651
797	S	heat pump 2	bOutHeatPumpPVHeating2	heatpump 2 heating	R		3 (BI)	ACTIVE = active	649
798	S	heat pump 2	bOutHeatPumpPVOperation2	heatpump 2 operating	R		3 (BI)	ACTIVE = active	650
799	S	heat pump 2	bOutHeatPumpCtrlCooling2	controlled value cooling signal of the heatpump 2	R		3 (BI)	ACTIVE = on	653

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no.	D/S	group	object name	description	R/W	unit	object type	values	object instance
800	S	heat pump 2	bOutHeatPumpCtrlHeating2	controlled value heating signal of the heatpump 2	R		3 (BI)	ACTIVE = on	652
801	S	heat pump 2	bOutHeatPumpCtrlRelease2	controlled value operation signal of the heatpump 2	R		3 (BI)	ACTIVE = on	654
802	S	heat pump 2	fOutHeatPumpCtrlPower2	controlled value of the heatpump 2 power [0..200%]	R	% (98)	0 (AI)		129