

Data point list Modbus/TCP X-CUBE Control

D: important data points
S: system specific data points

default IP address: 192.168.0.180 OR 192.168.0.200
Modbus/TCP port: 502

no.	D/S	group	datapoint	description	R/W	unit	scale	data type	values	register	bit	function code
5	D	system data	eSystemMode	AHU operation mode	W			uint	0 = off; 1 = manual mode; 2 = auto mode	32769		(0x03; 0x06)
6	S	system data	fTempOutdoor	send present value outdoor temperature to local PLC	W	°C	10	int		32770		(0x03; 0x06)
7	D	system data	nResetErrors	reset all errors, auto returns to 0	W			int	1 = reset	32771		(0x03; 0x06)
9	D	setpoints	fFanSUPSetpoint	setpoint of the supply air fan, unit depends on control strategy	W	Pa, m³/h, ppm		uint		32792		(0x03; 0x06)
10	D	setpoints	fFanETASetpoint	setpoint of the extract air fan, unit depends on control strategy	W	Pa, m³/h, ppm		uint		32793		(0x03; 0x06)
11	D	setpoints	fTempMinSetpoint	setpoint of the min. air temperature	W	°C	10	int		32794		(0x03; 0x06)
12	D	setpoints	fTempMaxSetpoint	setpoint of the max. air temperature	W	°C	10	int		32795		(0x03; 0x06)
13	S	setpoints	fHumMinSetpoint	setpoint of the min. air humidity	W	%	10	uint		32796		(0x03; 0x06)
14	S	setpoints	fHumMaxSetpoint	setpoint of the max. air humidity	W	%	10	uint		32797		(0x03; 0x06)
18	S	settings	fSetTempSUPMin	setpoint of the min. supply air temperature	W	°C	10	int		32808		(0x03; 0x06)
19	S	settings	fSetTempSUPMax	setpoint of the max. supply air temperature	W	°C	10	int		32809		(0x03; 0x06)
20	S	settings	fSetHumSUPMin	setpoint of the min. supply air humidity	W	%rH	10	int		32810		(0x03; 0x06)
21	S	settings	fSetHumSUPMax	setpoint of the max. supply air humidity	W	%rH	10	int		32811		(0x03; 0x06)
25	S	system data	bVoltageError	voltage error	R			bool	TRUE = ok	32768	3	(0x04)
26	S	system data	bMainFuse	main fuse error	R			bool	TRUE = ok	32768	4	(0x04)
27	S	system data	bFireAlarm	error triggered fire alarm	R			bool	TRUE = ok	32768	5	(0x04)
29	S	system data	bFrostProtection	error triggered frost protection	R			bool	TRUE = ok	32768	7	(0x04)
30	D	system data	eEventNotification	notification of alarm class	R			uint	0 = no alarm; 1 = warning (B-alarm); 2 = critical (A-alarm)	32769		(0x04)
31	S	system data	fTempOutdoor	present value outdoor air temperature	R	°C	0.1	int		32770		(0x04)
58	S	measurement data	fTempODA	present value outdoor air temperature	R	°C	0.1	int		32791		(0x04)
59	S	measurement data	fTempSUP	present value supply air temperature	R	°C	0.1	int		32792		(0x04)
60	S	measurement data	fTempETA	present value extracted air temperature	R	°C	0.1	int		32793		(0x04)
61	S	measurement data	fTempEHA	present value exhausts air temperature	R	°C	0.1	int		32794		(0x04)
62	S	measurement data	fHumODA	present value outdoor air humidity	R	%rH	0.1	uint		32795		(0x04)
63	S	measurement data	fHumSUP	present value supply air humidity	R	%rH	0.1	uint		32796		(0x04)
64	S	measurement data	fHumETA	present value extracted air humidity	R	%rH	0.1	uint		32797		(0x04)
65	S	measurement data	fHumEHA	present value exhausts air humidity	R	%rH	0.1	uint		32798		(0x04)
66	S	measurement data	fPressureSUP	present value supply duct pressure	R	Pa		uint		32799		(0x04)
67	S	measurement data	fPressureETA	present value exhaust duct pressure	R	Pa		uint		32800		(0x04)
68	S	measurement data	fVOC	present value voc concentration	R	ppm		uint		32801		(0x04)
69	S	measurement data	fCO2	present value CO2 concentration	R	ppm		uint		32802		(0x04)
79	S	cooler	bCoolStateMotorProtection	error motor protection cooler pump	R			bool	TRUE = ok	32813	0	(0x04)
81	S	cooler	bCoolCtrlPump	controlled value to switch on/off the cooler pump	R			bool	TRUE = on	32813	2	(0x04)
82	S	cooler	fCoolStateValve	current position of the cooler valve	R	%		uint		32814		(0x04)
83	S	cooler	fCoolMealInletTemp	present value of the cooler inlet temperature	R	°C	0.1	int		32815		(0x04)
85	S	preheater	bPreHeatStateMotorProtection	error motor protection preheater pump	R			bool	TRUE = ok	32822	0	(0x04)
87	S	preheater	bPreHeatCtrlPump	controlled value to switch on/off the preheater pump	R			bool	TRUE = on	32822	2	(0x04)
88	S	preheater	fPreHeatStateValve	current position of the preheater valve	R	%		uint		32823		(0x04)
89	S	preheater	fPreHeatMeaReturnTemp	present value of the preheater outlet temperature	R	°C	0.1	int		32824		(0x04)
91	S	reheater	bReHeatStateMotorProtection	error motor protection reheater pump	R			bool	TRUE = ok	32831	0	(0x04)

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93	S	reheater	bReHeatCtrlPump	controlled value to switch on/off the reheater pump	R			bool	TRUE = on	32831	2	(0x04)
94	S	reheater	fReHeatStateValve	current position of the reheater valve	R	%		uint		32832		(0x04)
95	S	reheater	fReHeatMeaReturnTemp	present value of the reheater outlet temperature	R	°C	0.1	int		32833		(0x04)
111	S	damper	fDamperStateODA	current position of the outdoor air damper	R	%		uint		32842		(0x04)
112	S	damper	fDamperStateSUP	current position of the supply air damper	R	%		uint		32843		(0x04)
113	S	damper	fDamperStateETA	current position of the extract air damper	R	%		uint		32844		(0x04)
114	S	damper	fDamperStateEHA	current position of the exhaust air damper	R	%		uint		32845		(0x04)
115	S	damper	fDamperStateRCA	current position of the recovery air damper	R	%		uint		32846		(0x04)
125	S	damper	fDamperCtrlODA	controlled value of the outdoor air damper position	R	%		uint		32856		(0x04)
126	S	damper	fDamperCtrlSUP	controlled value of the supply air damper position	R	%		uint		32857		(0x04)
127	S	damper	fDamperCtrlETA	controlled value of the extract air damper position	R	%		uint		32858		(0x04)
128	S	damper	fDamperCtrlEHA	controlled value of the exhaust air damper position	R	%		uint		32859		(0x04)
129	S	damper	fDamperCtrlRCA	controlled value of the recovery air damper position	R	%		uint		32860		(0x04)
141	S	supply air fan	bFanStateErrorSUP	internal error of the supply air fan	R			bool	TRUE = ok	32871	2	(0x04)
144	S	supply air fan	bFanCtrlOperationSUP	controlled value to switch on/off the supply air fan	R			bool	TRUE = on	32871	5	(0x04)
151	S	supply air fan	fFanCtrlSpeedSUP	controlled value of the supply air fan speed [0..100%]	R	%		uint		32873		(0x04)
152	S	supply air fan	fFanMeaDpSUP	present value supply air fan diff. pressure	R	Pa		uint		32874		(0x04)
153	S	supply air fan	fFanMeaAirFlowSUP	present value supply airflow	R	m³/h		uint		32875		(0x04)
159	S	extract air fan	bFanStateErrorETA	internal error of the extract air fan	R			bool	TRUE = ok	32881	2	(0x04)
162	S	extract air fan	bFanCtrlOperationETA	controlled value to switch on/off the extract air fan	R			bool	TRUE = on	32881	5	(0x04)
169	S	extract air fan	fFanCtrlSpeedETA	controlled value of the extract air fan speed [0..100%]	R	%		uint		32883		(0x04)
170	S	extract air fan	fFanMeaDpETA	present value extract air fan diff. pressure	R	Pa		uint		32884		(0x04)
171	S	extract air fan	fFanMeaAirFlowETA	present value extract airflow	R	m³/h		uint		32885		(0x04)
175	S	filter	bFilterStateWarningODA	error outdoor air filter change required	R			bool	TRUE = ok	32891	0	(0x04)
176	S	filter	bFilterStateWarningSUP	error supply air filter change required	R			bool	TRUE = ok	32891	1	(0x04)
177	S	filter	bFilterStateWarningETA	error extract air filter change required	R			bool	TRUE = ok	32891	2	(0x04)
187	S	filter	uiFilterStateHoldingTimeODA	holding time outdoor air filter (in hour)	R	h		uint		32893		(0x04)
188	S	filter	uiFilterStateHoldingTimeSUP	holding time supply air filter (in hour)	R	h		uint		32894		(0x04)
189	S	filter	uiFilterStateHoldingTimeETA	holding time extract air filter (in hour)	R	h		uint		32895		(0x04)
193	S	filter	fFilterMeaDpODA	present value outdoor air filter diff. pressure	R	Pa		uint		32899		(0x04)
194	S	filter	fFilterMeaDpSUP	present value supply air filter diff. pressure	R	Pa		uint		32900		(0x04)
195	S	filter	fFilterMeaDpETA	present value extract air filter diff. pressure	R	Pa		uint		32901		(0x04)
208	S	plate heat exchanger	fPlaHexStateBypass	current position bypass plate heat exchanger	R	%		uint		32912		(0x04)
211	S	plate heat exchanger	fPlaHexMeaDp	present value plate heat exchanger diff. pressure	R	%		uint		32915		(0x04)
212	S	plate heat exchanger	fPlaHexCtrlBypass	controlled value bypass plate heat exchanger	R	%		uint		32916		(0x04)
216	S	rotary heat exchanger	bRotHexCtrlOperation	controlled value to release the heat recovery wheel	R			bool	TRUE = ok	32922	2	(0x04)
217	S	rotary heat exchanger	fRotHexCtrlRPM	controlled value heat recovery wheel speed	R	%		uint		32923		(0x04)

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242	S	current operation mode	eOperationMode	current operation mode of the air handling unit.	R			uint	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	32942		(0x04)
302	S	fire damper	bCriticalSmokeDetectorOrFireDampe	collective fault of smoke detectors and fire dampers	R			bool	TRUE = alarm	32990	0	(0x04)
303	S	fire damper	bFireDampersOK	all fire dampers are ok	R			bool	TRUE = ok	32990	1	(0x04)
304	S	fire damper	bSmokeDetectorsOK	all smoke detectors are ok	R			bool	TRUE = ok	32990	2	(0x04)
792	S	electric preheater	bPreEHeatCtrlON	controlled value operation signal of the electric preheater	R			bool	TRUE = on	33024	3	(0x04)
793	S	electric preheater	fPreEHeatCtrlPower	controlled value of the electric preheater power [0..100%]	R	%		uint		33025		(0x04)
797	S	electric reheater	bReEHeatCtrlON	controlled value operation signal of the electric reheater	R			bool	TRUE = on	33028	3	(0x04)
798	S	electric reheater	fReEHeatCtrlPower	controlled value of the electric reheater power [0..100%]	R	%		uint		33029		(0x04)
799	S	external chiller	bExternalChillerError	ext. chiller error	R			bool	TRUE = ok	33032	0	(0x04)
800	S	external chiller	bExternalChillerStateOn	ext. chiller operating	R			bool	TRUE = on	33032	1	(0x04)
801	S	external chiller	bExternalChillerCtrlOn	controlled value operation signal of the ext. chiller	R			bool	TRUE = on	33032	2	(0x04)
802	S	external chiller	fExternalChillerCtrlPower	controlled value of the ext. chiller power [0..100%]	R	%		uint		33033		(0x04)
804	S	humidifier	bHumidifierStateError	humidifier error	R			bool	TRUE = ok	33037	1	(0x04)
805	S	humidifier	bHumidifierStateOn	humidifier operating	R			bool	TRUE = on	33037	2	(0x04)
809	S	humidifier	bHumidifierCtrlOn	controlled value operation signal of the humidifier	R			bool	TRUE = on	33037	6	(0x04)
810	S	humidifier	fHumidifierCtrlPower	controlled value of the humidifier power [0..100%]	R	%		uint		33038		(0x04)
811	S	heat pump 1	bHeatPumpStateError1	heatpump 1 error	R			bool	TRUE = ok	33042	0	(0x04)
812	S	heat pump 1	bHeatPumpStateDeicing1	heatpump 1 deicing	R			bool	TRUE = active	33042	1	(0x04)
813	S	heat pump 1	bHeatPumpStateHeating1	heatpump 1 heating	R			bool	TRUE = active	33042	2	(0x04)
814	S	heat pump 1	bHeatPumpStateOperation1	heatpump 1 operating	R			bool	TRUE = active	33042	3	(0x04)
815	S	heat pump 1	bHeatPumpCtrlCooling1	controlled value cooling signal of the heatpump 1	R			bool	TRUE = on	33042	4	(0x04)
816	S	heat pump 1	bHeatPumpCtrlHeating1	controlled value heating signal of the heatpump 1	R			bool	TRUE = on	33042	5	(0x04)
817	S	heat pump 1	bHeatPumpCtrlRelease1	controlled value operation signal of the heatpump 1	R			bool	TRUE = on	33042	6	(0x04)
818	S	heat pump 1	fHeatPumpCtrlPower1	controlled value of the heatpump 1 power [0..100%]	R	%		uint		33043		(0x04)
819	S	heat pump 2	bHeatPumpStateError2	heatpump 2 error	R			bool	TRUE = ok	33047	0	(0x04)
820	S	heat pump 2	bHeatPumpStateDeicing2	heatpump 2 deicing	R			bool	TRUE = active	33047	1	(0x04)
821	S	heat pump 2	bHeatPumpStateHeating2	heatpump 2 heating	R			bool	TRUE = active	33047	2	(0x04)
822	S	heat pump 2	bHeatPumpStateOperation2	heatpump 2 operating	R			bool	TRUE = active	33047	3	(0x04)
823	S	heat pump 2	bHeatPumpCtrlCooling2	controlled value cooling signal of the heatpump 2	R			bool	TRUE = on	33047	4	(0x04)
824	S	heat pump 2	bHeatPumpCtrlHeating2	controlled value heating signal of the heatpump 2	R			bool	TRUE = on	33047	5	(0x04)
825	S	heat pump 2	bHeatPumpCtrlRelease2	controlled value operation signal of the heatpump 2	R			bool	TRUE = on	33047	6	(0x04)
826	S	heat pump 2	fHeatPumpCtrlPower2	controlled value of the heatpump 2 power [0..200%]	R	%		uint		33048		(0x04)
850	S	loop controller fans	fFanSupSetpointAirflow	setpoint supply air flow	R	m³/h	10	uint		33072		(0x04)
851	S	loop controller fans	fFanSupCurrentValueAirflow	present value supply air flow	R	m³/h	10	uint		33073		(0x04)
852	S	loop controller fans	fFanSupSetpointPressure	setpoint supply air duct pressure	R	Pa		uint		33074		(0x04)

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853	S	loop controller fans	fFanSupCurrentValuePressure	present value supply air duct pressure	R	Pa		uint		33075		(0x04)
855	S	loop controller fans	fFanEtaSetpointAirflow	setpoint extract air flow	R	m³/h	10	uint		33082		(0x04)
856	S	loop controller fans	fFanEtaCurrentValueAirflow	present value extract air flow	R	m³/h	10	uint		33083		(0x04)
857	S	loop controller fans	fFanEtaSetpointPressure	setpoint extract air duct pressure	R	Pa		uint		33084		(0x04)
858	S	loop controller fans	fFanEtaCurrentValuePressure	present value extract air duct pressure	R	Pa		uint		33085		(0x04)
863	S	loop controller temperature	fSupTempSetpointCurrent	current supply air temperature setpoint	R	°C	0.1	uint		33095		(0x04)
864	S	loop controller temperature	fSupTempCurrentValue	present value supply air temperature	R	°C	0.1	uint		33096		(0x04)
867	S	loop controller temperature	fEtaTempSetpointCurrent	current extract air temperature setpoint	R	°C	0.1	uint		33099		(0x04)
868	S	loop controller temperature	fEtaTempCurrentValue	present value extract air temperature	R	°C	0.1	uint		33100		(0x04)
871	S	loop controller temperature	fRoomTempSetpointCurrent	current room air temperature setpoint	R	°C	0.1	uint		33103		(0x04)
872	S	loop controller temperature	fRoomTempCurrentValue	present value room air temperature	R	°C	0.1	uint		33104		(0x04)
877	S	loop controller humidity	fSupHumSetpointCurrent	current supply air humidity setpoint	R	g/kg	0.01	uint		33114		(0x04)
878	S	loop controller humidity	fSupHumCurrentValue	present value supply air humidity	R	g/kg	0.01	uint		33115		(0x04)
881	S	loop controller humidity	fEtaHumSetpointCurrent	current extract air humidity setpoint	R	g/kg	0.01	uint		33118		(0x04)
882	S	loop controller humidity	fEtaHumCurrentValue	present value extract air humidity	R	g/kg	0.01	uint		33119		(0x04)
885	S	loop controller humidity	fRoomHumSetpointCurrent	current room air humidity setpoint	R	g/kg	0.01	uint		33122		(0x04)
886	S	loop controller humidity	fRoomHumCurrentValue	present value room air humidity	R	g/kg	0.01	uint		33123		(0x04)
888	S	loop controller air quality	fAirQualitySetpoint	setpoint air quality	R	ppm		uint		33130		(0x04)
889	S	loop controller air quality	fAirQualityCurrentValue	present value air quality	R	ppm		uint		33131		(0x04)