Modbus
Rooftop Configuration Properties

Modbus Object Type: Holding Registers

Name	Default	Min	Max	Units	Modbus Reg #	Multiplier	Focus Screen	Notes
DeviceType	2	2	2	None	1	1	Device	(Not writable) 2=Advanced Rooftop Controller
Soft Version	7.5	0	655.35	None	2	100	Device	(Not writable)
Hard Version	3.1	0	6553.5	None	3	10	Device	(Not writable) 3=M1000 / 3.1=M2000
Fan Heat SP	10	0	100	%	4	1	Fan	
Fan Cool SP	10	0	100	%	5	1	Fan	
Fan Interm Heat Source	0	0	4	None	6	1	Fan	0=Math1 / 1=Math2 / 2=Math3 / 3=Math4 / 4=Math5
Fan Interm Cool Source	0	0	4	None	7	1	Fan	0=Math1 / 1=Math2 / 2=Math3 / 3=Math4 / 4=Math5
Fan Unoccupied Sequence	2	0	4	None	8	1	Fan	0=OFF / 1=Intermittent HEAT / 2=Intermittent COOL / 3=Intermittent BOTH / 4=ON
Fan Override Sequence	4	0	4	None	9	1	Fan	0=OFF / 1=Intermittent HEAT / 2=Intermittent COOL / 3=Intermittent BOTH / 4=ON
Fan Min Cycle Time	15	0	120	min	10	1	Fan	
Cooling Mode	2	0	16	None	11	1	Cooling	0=NONE / 1=1STG / 2=2STG / 3=3STG with DMUX / 4=4STG with DMUX / 5=ANLG with PTA2 / 6=3STG / 7=4STG / 8=5STG / 9=6STG / 10=7STG / 11=8STG / 12=ANLG on AO3 / 13=VERN1STG / 14=VERN2STG / 15=VERN3STG / 16=VERN4STG
Cooling Dem Source	0	0	4	None	12	1	Cooling	0=Math1 / 1=Math2 / 2=Math3 / 3=Math4 / 4=Math5

Cool 1 SP	35	5	95	%	13	1	Cooling	Setpoint register used for either stage 1 or analog cooling
Cool 1 Band	20	8	99	%	14	1	Cooling	Register used for either (stage 1 differential) or (analog cooling proportional band) depending on mode
Cool 2 SP	50	5	95	%	15	1	Cooling	
Cool 2 Diff	20	8	99	%	16	1	Cooling	
Cool 3 SP	80	5	95	%	17	1	Cooling	
Cool 3 Diff	20	8	99	%	18	1	Cooling	
Cool 4 SP	90	5	95	%	19	1	Cooling	
Cool 4 Diff	19	8	99	%	20	1	Cooling	
Cool Min ON Time	2	0	10	min	21	1	Cooling	
Cool Min OFF Time	5	0	15	min	22	1	Cooling	
Heat Demand Source	0	0	4	None	23	1	Heating	0=Math1 / 1=Math2 / 2=Math3 / 3=Math4 / 4=Math5
DO4 Function	1	0	2	None	24	1	Heating	0=None / 1=Preheat permission / 2=Heating Stage / 3=Hot Gas Reheat
DO4 SP	55	5	95	%	25	1	Heating	
DO4 Diff	20	8	99	%	26	1	Heating	
AO1 Function	0	0	3	None	27	1	Heating	0=None / 1=Preheat only / 2=Preheat and heating / 3=Heating only / 4=Hot Gas Reheat
AO1 Reverse Acting	0	0	1	None	28	1	Heating	
AO1 Pulsed	0	0	1	None	29	1	Heating	
AO1 Range	0	0	2	None	30	1	Heating	0=0-10V / 1=2-10V / 2=0-5V
AO1 SP	40	1	95	%	31	1	Heating	
AO1 Heat Mode	0	0	1	None	32	1	Heating	0=Proportionnal / 1=Differential
AO1 Heat Band	60	5	99	%	33	1	Heating	
Preheat SP	21.5	10	99	deg C	34	100	Heating	
Preheat Prop	20	0	50	deg C	35	100	Heating	
Preheat Integ	15	0	240	min	36	1	Heating	
Return Temp Lim C1	14	1	40	deg C	37	100	Limits	
Return Temp Lim C2	20	1	40	deg C	38	100	Limits	
Return Temp Lim Heat	35	0	50	deg C	39	100	Limits	
Supply Temp Lim Fan Stop	4	-40	40	deg C	40	100	Limits	

Supply Temp Lim Fan Start	12	-38	60	deg C	41	100	Limits	
Out Temp Preheat En	12	-100	21	deg C	42	100	Limits	
Out Temp Lim C1	-40	-40	40	deg C	43	100	Limits	
Out Temp Lim C2	12	-40	40	deg C	44	100	Limits	
Out Temp Lim Heat	30	0	50	deg C	45	100	Limits	
Out Unoc Fan Restart Lo	-40	-40	40	deg C	46	100	Limits	
Out Unoc Fan Restart Hi	60	-40	60	deg C	47	100	Limits	
Delay Heat Cool	5	0	100	min	48	1	Priority	
Deadband Heat Cool	20	0	30	%	49	1	Priority	
Priority Mode	1	0	2	None	50	1	Priority	0=AUTO / 1=MANUAL / 2=ALTERNATING
Manual Priority	1	0	1	None	51	1	Priority	0=Heat / 1=Cool
Priority switch out temp	8	-20	30	deg C	52	100	Priority	
Priority switch diff	4	0	20	deg C	53	100	Priority	
Supply Temp Offset	0	-20	20	deg C	54	100	Calibration	
Out Temp Offset	0	-20	20	deg C	55	100	Calibration	
Return Temp Offset	0	-20	20	deg C	56	100	Calibration	
Math1 Source	0	0	255	None	57	1	Math	0=WeightedAverage / 1=MaxHeating / 2=MaxCooling / 3=WeightedAverage (HeatOnly) / 4=WeightedAverage(CoolOnly) / 5=MathOccupancy / 6=MathOverride / 7=RadiantReq / 8=CoolingOutput / Else=OFF
Math2 Source	0	0	255	None	58	1	Math	0=WeightedAverage / 1=MaxHeating / 2=MaxCooling / 3=WeightedAverage (HeatOnly) / 4=WeightedAverage(CoolOnly) / 5=MathOccupancy / 6=MathOverride / 7=RadiantReq / 8=CoolingOutput / Else=OFF

Math3 Source	0	0	255	None	59	1	Math	0=WeightedAverage / 1=MaxHeating / 2=MaxCooling / 3=WeightedAverage (HeatOnly) / 4=WeightedAverage(CoolOnly) / 5=MathOccupancy / 6=MathOverride / 7=RadiantReq / 8=CoolingOutput / Else=OFF
Math4 Source	0	0	255	None	60	1	Math	0=WeightedAverage / 1=MaxHeating / 2=MaxCooling / 3=WeightedAverage (HeatOnly) / 4=WeightedAverage(CoolOnly) / 5=MathOccupancy / 6=MathOverride / 7=RadiantReq / 8=CoolingOutput / Else=OFF
Math5 Source	0	0	255	None	61	1	Math	0=WeightedAverage / 1=MaxHeating / 2=MaxCooling / 3=WeightedAverage (HeatOnly) / 4=WeightedAverage(CoolOnly) / 5=MathOccupancy / 6=MathOverride / 7=RadiantReq / 8=CoolingOutput / Else=OFF
Math1 Group	0	0	250	None	62	1	Math	
Math2 Group	0	0	250	None	63	1	Math	
Math3 Group	0	0	250	None	64	1	Math	
Math4 Group	0	0	250	None	65	1	Math	
Math5 Group	0	0	250	None	66	1	Math	
Demand Filter	10	0	100	%	67	1	Math	
List Refresh Rate	30	0	250	min	68	1	Math	
Math Refresh Rate	3	1	250	sec	69	1	Math	
Net Supply Temp Source	0	0	127	None	70	1	Network	
Cool Prio Zone 1	0	0	127	None	71	1	Network	0=No cool prio zone
Cool Prio Zone 2	0	0	127	None	72	1	Network	
Cool Prio Zone 3	0	0	127	None	73	1	Network	
MWUpEn	0	0	7	None	74	1	Network	Bit1=Out3, Bit2=Out4, Bit3=Out5 --> Bit Up = MWUp Active, else inactive
MWUp Time	0	0	300	min	75	1	Network	

OutTempOverrEn1	0	0	15	None	76	1	Network	Bit1=Out3 / Bit2=Out4 / Bit3=Out5 / Bit4-->0=less,1=more
OutTempOverrEn2	0	0	15	None	77	1	Network	Bit1=Out3 / Bit2=Out4 / Bit3=Out5 / Bit4-->0=less,1=more
Out Overr Temp1	-20	-30	40	deg C	78	100	Network	
Out Overr Temp2	-20	-30	40	deg C	79	100	Network	
Out3OverrVal1	0	0	100	%	80	1	Network	
Out3OverrVal2	0	0	100	%	81	1	Network	
Out4OverrVal1	0	0	100	%	82	1	Network	
Out4OverrVal2	0	0	100	%	83	1	Network	
Net Baud	3	0	5	None	84	1	Baud Rate	0=9600 / 1=19200 / 2=38400 / 3=57600 / 4=76800 / 5=115200
Net Parity	0	0	2	None	85	1	Baud Rate	0=NONE / 1=ODD / 2=EVEN
Net StopBits	0	0	1	None	86	1	Baud Rate	0=1 Stop Bit / 1=2 Stop Bits
RJ45 Baud	3	0	5	None	87	1	Baud Rate	0=9600 / 1=19200 / 2=38400 / 3=57600 / 4=76800 / 5=115200
RJ45 Parity	0	0	2	None	88	1	Baud Rate	0=NONE / 1=ODD / 2=EVEN
RJ45 StopBits	0	0	1	None	89	1	Baud Rate	0=1 Stop Bit / 1=2 Stop Bits
Location	0	0	65535	None	90	1	Device	Each reg holds 2 chars -- 16 chars max -- 8 regs --regs 90-97
Slave List	0	0	65535	None	98	1	Slave List	Each reg holds 16 bits - 8 regs - 98 - 105
SupplyCoolLimit	9	-40	40	deg C	106	100	Limits	
SupplyHeatLim	50	21.5	100	deg C	107	100	Limits	
Out5OverrVal1	0	0	100	%	108	1	Network	
Out5OverrVal2	0	0	100	%	109	1	Network	
AllDamperOverride	255	0	255	%	110	1	Network	Overrides all slave dampers to this position. Set 8th bit=1 to override based on flow (% of configured range). Set to 255 to remove override. Set to 254 to use MAX configured pos/flow. Set to 253 to use MIN configured pos/flow.
SupplyOut5ModLimit	40	21.5	100	deg C	111	100	Limits	If output 5 is modulating it will limit itself to this temp in the supply
Enable Absolute Overrides	0	0	1	None	112	1	Visualisation	0=Overrides are protected by limits and timing delays / 1=Overrides obey the users commands absolutely (no protection - use at own risk)

Math Unoc Mode	0	0	1	None	113	1	Math	0=Averaging math functions are replaced with Max Demand during unoccupied mode / 1=No change to math functions during unoccupied mode
Analog Cooling Range	0	0	1	None	114	1	Cooling	0=0-10VDC / 1=2-10VDC
Analog Cool Reverse Acting	0	0	1	None	115	1	Cooling	
Fan Occupied Mode	4	0	4	None	116	1	Fan	0=OFF / 1=Intermittent HEAT / 2=Intermittent COOL / 3=Intermittent BOTH / 4=ON
Password	0	0	65535	None	117	1	Device	Each reg holds 2 chars -- 16 chars max -- 8 regs --regs 117-124
Cool 1 Override	0	0	255	None	125	1	Visualisation	0=OFF / 1-100=ON (Modulate if applicable) / Else=AUTO
Cool 2 Override	0	0	2	None	126	1	Visualisation	0=AUTO / 1=OFF / 2=ON
Cool 3 Override	0	0	2	None	127	1	Visualisation	0=AUTO / 1=OFF / 2=ON
Cool 4 Override	0	0	2	None	128	1	Visualisation	0=AUTO / 1=OFF / 2=ON
DO4 Heat Override	0	0	2	None	129	1	Visualisation	0=AUTO / 1=OFF / 2=ON
AO1 Heat Override	255	0	255	%	130	1	Visualisation	set greater than 100 to remove override
Fan Override	0	0	2	None	131	1	Visualisation	0=Auto / 1=OFF / 2=ON
Schedule Override	0	0	2	None	132	1	Visualisation	0=Auto / 1=OFF / 2=ON
Reset	0	0	1	None	133	1	Device	Writing a 1 here will command the device to reset itself
GetList	0	0	1	None	134	1	Slave List	Writing a 1 here will command the device to refresh its slave list
Reprogram	0	0	255	None	135	1	Device	Writing 255 to this address causes the device to enter bootload mode (warning: cannot be returned from without Focus)
User Mode Override	0	0	255	None	141	1	Visualisation	Bit0=Fan override Enable / Bit1=Fan Override Value / Bit2=Block Heating / Bit3=Block Cooling / Bit4=Block Dehum
UseEcono	1	0	1	None	150	1	Economizer	
EconoChangeTemp	13	-40	40	deg C	151	100	Economizer	
EconoChangeDiff	3	0	20	deg C	152	100	Economizer	
EconoSP	20	10	95	%	153	1	Economizer	
EconoProp	30	0	100	%	154	1	Economizer	
EconoMinDampPos	0	0	100	%	155	1	Economizer	

EconoLimType	1	0	1	None	156	1	Economizer	TRUE=MixTemp, FALSE=SupplyTemp
EconoLimTemp	15	5	30	deg C	157	100	Economizer	
EconoMornVentTime	60	0	250	min	158	1	Economizer	0=Disabled
CoolAltSP	75	5	95	%	159	1	Economizer	
CoolAltBand	20	5	99	%	160	1	Economizer	Register used for either (mech cool differential) or (analog cooling proportional band) depending on mode
EconoComprOK	0	0	1	None	161	1	Economizer	Permit economizer+compressor simultaneous functioning
DO5 Func	1	0	3	None	162	1	Heating	0=OFF, 1=HEATING, 2=EXHAUST, 3=BASEBOARD
DO5 SP	85	5	95	%	163	1	Heating	
DO5 Band	20	5	99	%	164	1	Heating	
UseCO2	1	0	1	None	165	1	CO2control	
CO2 SP	800	0	1500	ppm	166	1	CO2control	
CO2 Prop	200	0	1000	ppm	167	1	CO2control	
MaxCO2DampPos	50	0	100	%	168	1	CO2control	
CO2LimType	1	0	1	None	169	1	CO2control	TRUE=MixTemp, FALSE=SupplyTemp
CO2LimTemp	12	1	30	deg C	170	100	CO2control	
Group Code 1	0	0	250	None	171	1	GroupCodes	
Group Code 2	0	0	250	None	172	1	GroupCodes	
Group Code 3	0	0	250	None	173	1	GroupCodes	
Group Weight 1	0	0	15	None	174	1	GroupCodes	
Group Weight 2	0	0	15	None	175	1	GroupCodes	
Group Weight 3	0	0	15	None	176	1	GroupCodes	
Global Weight	1	0	60	None	177	1	GroupCodes	
OverrideTimeIO	120	0	720	min	178	1	Zone	
EconoRange	1	0	2	None	179	1	Economizer	0=0-10V / 1=2-10V / 2=0-5V
PressSP	0.75	0	2	in. H20	180	100	Bypass	
PressDiff	0.15	0	1	in. H20	181	100	Bypass	
DampSpeed	0	0	4	None	182	1	Bypass	0=fastest / 4=slowest
DampDir	0	0	1	None	183	1	Bypass	0=CCW / 1=CW
DampDelay	95	15	300	sec	184	10	Bypass	
ZoneProp	3	0	10	deg C	185	100	Zone	
ZoneCoolInteg	15	0	120	min	186	1	Zone	

ZoneHeatInteg	15	0	120	min	187	1	Zone	
DefHeatSP	21.5	-30	40	deg C	188	100	Zone	
DefCoolSP	22.5	-29.5	55	deg C	189	100	Zone	
UnocHeatSP	15	-30	40	deg C	190	100	Zone	
UnocCoolSP	30	-29.5	55	deg C	191	100	Zone	
MinHeatSP	19	-30	40	deg C	192	100	Zone	
MaxCoolSP	26	-29.5	55	deg C	193	100	Zone	
ScaleLimLo	15	-30	40	deg C	194	100	Zone	
ScaleLimHi	30	-30	40	deg C	195	100	Zone	
ZoneTempCalib	0	-20	20	deg C	196	100	Calibration	
MixTempCalib	0	-20	20	deg C	197	100	Calibration	
PressOffset	0	-1	1	in. H20	198	100	Calibration	
CO2 Offset	0	-3000	3000	ppm	199	1	Calibration	
MinCoolSP	20	-29.5	55	deg C	200	100	Zone	
MaxHeatSP	25	-30	40	deg C	201	100	Zone	
UnocHeat Offset	3	0	20	deg C	202	100	Zone	
UnocCool Offset	5	0	20	deg C	203	100	Zone	
OutDampDiff	5	0	100	%	204	1	Economizer	
DO5 Mode	0	0	1	None	205	1	Heating	0=Differential / 1=Proportionnal
BypassRange	1	0	3	None	206	1	Bypass	0=0-10V / 1=2-10V / 2=0-5V / 3=2.4-7.5V
Time Zone	7	0	25	None	207	1	Visualisation	0=GMT-12 … 25=GMT+13
Participation Out Override 1	0	0	65535	None	208	1	Network	Each bit defines the participation (Outside override rule 1) of one address on the slave list (8 regs = 128 devices)
Participation Out Override 2	0	0	65535	None	216	1	Network	Each bit defines the participation (Outside override rule 2) of one address on the slave list (8 regs = 128 devices)
UseDST	1	0	1	None	224	1	Visualisation	Automatically adjust for daylight savings time (0=NO / 1=YES)
DST Active Month	3	1	12	None	225	1	Visualisation	1=January … 12=December
DST Active Week	1	0	4	None	226	1	Visualisation	0= First weekend of month … 4=5th weekend of month
DST Deactive Month	11	1	12	None	227	1	Visualisation	1=January … 12=December
DST Deactive Week	0	0	4	None	228	1	Visualisation	0= First weekend of month … 4=5th weekend of month

Pressure Range	0	0	3	None	229	1	Bypass	0=0-1 inch H20 / 1=0-2.5 inch H20 / 2=0-2 inch H20 / 3=0-1.5 inch H20
AI4 Mode	0	0	5	None	230	1	Visualisation	0=None / 1=Mix Air Sensor / 2=Filter Sensor / 3=Schedule Override / 4=Auxiliary Input / 5=Alarm Input
Exhaust Fan Morning Delay	0	0	240	min	231	1	Heating	
Exhaust Fan Mode	0	0	1	None	232	1	Fan	0 = Occupancy / 1 = Power Exhaust
Exhaust Fan SP	30	5	95	%	233	1	Fan	
Exhaust Fan Diff	10	8	99	%	234	1	Fan	
Pressure Input Voltage Range	0	0	1	None	235	1	Bypass	0=0-5 VDC / 1=1-5 VDC
Preheat Low Limit	13	-1	40	deg C	236	100	Heating	Enforced when there is a cooling demand that isn't strong enough to turn on a cooling stage or open the econo
Dehumidification Setup	0	0	3	None	237	1	Dehumidification	Bit 0 (Dehum Enabled) --> 0=Disabled, 1=Enabled / Bit 1 (Demand Source) --> 0=REMOTE, 1=LOCAL
Use Dehumidification Preheat	1	0	1	None	238	1	Dehumidification	Allow preheating during the dehumidification sequence
Dehumid Preheat SP	20	9	27	deg C	239	100	Dehumidification	Preheat SP used when dehumidification is active
Dehumid Zone Damper Min Pos	50	0	100	%	240	1	Dehumidification	All zone dampers will use this minimum position when dehumidification is active
Dehumid Cool Stage 1 SP	50	0	100	%	241	1	Dehumidification	Mechanical cooling stage 1 SP based on dehumidification demand
Dehumid Cool Stage 2 SP	80	0	100	%	242	1	Dehumidification	Mechanical cooling stage 2 SP based on dehumidification demand
Dehumid Cool Stage 1 Diff	20	8	99	%	243	1	Dehumidification	Mechanical cooling stage 1 differential band based on dehumidification demand
Dehumid Cool Stage 2 Diff	20	8	99	%	244	1	Dehumidification	Mechanical cooling stage 2 differential band based on dehumidification demand
Dehumid Econo SP	50	0	100	%	245	1	Dehumidification	Economizer SP based on dehumidification demand
Dehumid Econo Prop	50	8	99	%	246	1	Dehumidification	Economizer proportional band based on dehumidification demand

Dehumid Econo Changeover	10	-40	40	deg C	247	100	Dehumidification	The outside temperature below which the economizer will be used to dehumidify instead of mecahnical cooling
Dig Out 4 Min Off Time	5	0	15	min	248	1	Heating	Minimum off time of digital output 4
Schedule - Years	0	0	99	None	250	1	Visualisation	Years after 2000
Schedule - Months	1	1	12	None	251	1	Visualisation	1=Jan … 12=December
Schedule - Day of Week	0	0	6	None	252	1	Visualisation	0=Sunday … 6=Saturday
Schedule - Days	1	1	31	None	253	1	Visualisation	Day of month
Schedule - Hours	0	0	23	None	254	1	Visualisation	
Schedule - Minutes	0	0	59	None	255	1	Visualisation	
Schedule - Seconds	0	0	59	None	256	1	Visualisation	
EconoOverride	255	0	255	%	275	1	Visualisation	set greater than 100 to remove override
BypassOverride	255	0	255	%	276	1	Visualisation	set greater than 100 to remove override
DO5 Heat Override	255	0	255	%	277	1	Visualisation	set greater than 100 to remove override
Cool 5 Override	0	0	255	None	278	1	Visualisation	0=AUTO / 1=OFF / 2=ON
Cool 6 Override	0	0	255	None	279	1	Visualisation	0=AUTO / 1=OFF / 2=ON
Cool 7 Override	0	0	255	None	280	1	Visualisation	0=AUTO / 1=OFF / 2=ON
Cool 8 Override	0	0	255	None	281	1	Visualisation	0=AUTO / 1=OFF / 2=ON
Weekly Schedule	127	0	255	None	300	1	Schedule	Registers 300 to 427. Must access using Multiple Read/Write. [Sunday to Saturday, then Holiday] [period 1-8] [hour, minute]
Calendar	0	0	255	None	428	1	Calendar	Registers 428 to 475. Must access using Multiple Read/Write. [January to December][4 bytes = 32 days]. Each bit set to 1 is considered a holiday.
Display Only Registers	0	0	0	None	500	1	Visualisation	Registers 500 to 547. Must access using Multiple Read/Write. [8 first regs are visual display choices: OutTemp, RetTemp, SupTemp, Press, Filter, Bypass, Fan, Math][Then 8 regs for each math name (x5)]

Display Setup	63	0	255	None	548	1	Visualisation	BIT0=DisplayOutTemp / BIT1=DisplayRetTemp / BIT2=DisplaySupTemp / BIT3=DisplayPressSens / BIT4=DisplayFilter / BIT5=DisplayFan / BIT6=UseRetTempAsZone / BIT7=DisplayHertz
Display Label	0	0	4	None	549	1	Visualisation	0=Zoning Rooftop / 1=Split System / 2=Air Handler / 3=Furnace / 4=Package Unit
Low Hertz	20	0	100	Hertz	550	1	Bypass	
High Hertz	60	0	100	Hertz	551	1	Bypass	
Pressure Control Mode	1	0	2	None	552	1	Visualisation	0=NONE / 1=BYPASS DAMPER / 2=VFD (This is a copy of register #505)
EconoControlMode	0	0	2	None	600	1	Economizer	0=Damper Position Control / 1=Supply Temperature Control / 2=Mix Temp Control
Econo Max Temp	18	5	30	deg C	601	100	Economizer	Max Econo Temp for Supply Temperature Control
Econo Damper Speed	2	0	4	None	602	1	Economizer	0=Slowest / 4=Fastest
VFD Min Volts	3	0	10	Volts	603	10	Bypass	Only applicable to VFD (not bypass damper)
VFD Max Volts	10	0	10	Volts	604	10	Bypass	Only applicable to VFD (not bypass damper)
Cooling Priority Lo Stage Only	0	0	1	None	605	1	Network	When set to 1, cooling priority zones cannot activate the second stage of cooling
Participation Morn WarmUp	65535	0	65535	None	606	1	Network	Each bit defines the participation of one address on the slave list (8 regs = 128 devices) (Regs 606 - 613)
Auxiliary Input 4 Name	0	0	65535	None	614	1	Visualisation	Each reg holds 2 chars -- 16 chars max -- 8 regs -- regs 614-621
AO1 Freeze Protect Pos	0	0	100	%	622	1	Heating	Drive output to this position when fan stops and supply and outside temp are too cold (set to 0 to disable)

Zone Setpoint Calib	0	-20	20	deg C	623	100	Calibration	This offset is applied to the Default Heating Setpoint or to the setpoint provided by an attached potentiometer.
Const Cool Seq Enabled	0	0	1	None	624	1	Cooling	0=Demand based cooling / 1=Constant cooling with target supply temp
Const Cool SP Calc Mode	0	0	3	None	625	1	Cooling	0=Demand reset scale (same as econo) / 1=Fixed SP / 2=Outside temp reset scale / 3=Return temp reset scale
Cool Scale Min Temp	12	-40	40	deg C	626	100	Cooling	
Cool Scale Max Temp	18	-40	40	deg C	627	100	Cooling	
Const Cool Differential	5	1	15	deg C	628	100	Cooling	Centered on const cool supply SP
Compr Interstage Act Delay	3	0	60	min	629	1	Cooling	
Compr Interstage Deact Delay	2	0	60	min	630	1	Cooling	
Modulating Cool Prop	20	0	30	deg C	631	100	Cooling	Used for const cooling sequence only
Modulating Cool Integral	15	0	60	min	632	1	Cooling	Used for const cooling sequence only
Const Cool Morn Warm Up Seq En	0	0	15	None	633	1	Heating	Bit1(LSB) = DO4 Enabled / Bit2=DO5 Enabled / Bit3=AO1 Enabled / Bit4=Zone Damper Ovr Enabled
Const Cool Morn Warm Up Time	30	0	250	min	634	1	Heating	Morning warm up time for const cooling sequence
Const Cool Morn Warm Up Out Temp	13	-40	40	deg C	635	100	Heating	Out temp below which morning warm up is enabled
Const Cool Morn Warm Up Damp Ovr Mode	50	0	255	None	636	1	Heating	Zone damper positions during morning warm up. Set bit8(MSB) to override to instead be based on air flow (% of configured range).
Const Cool Morn Warm Up DO4 Ret Temp	19.5	0	40	deg C	637	100	Heating	
Const Cool Morn Warm Up DO5 Ret Temp	17	0	40	deg C	638	100	Heating	
Const Cool Morn Warm Up AO1 Ret Temp	13	0	40	deg C	639	100	Heating	
Const Cool Supply Low Limit DO4	10	0	40	deg C	640	100	Heating	Only in use in constant cooling sequence

Const Cool Supply Low Limit DO5	8	0	40	deg C	641	100	Heating	Only in use in constant cooling sequence
Const Cool Supply Low Limit Differential	2	1	15	deg C	642	100	Heating	Only in use in constant cooling sequence
Const Cool Supply Low Limit Setup	0	0	7	None	643	1	Heating	Bit1(LSB)=DO4 Enabled / Bit2=DO5 Enabled / Bit3=AO1 Enabled
Ignore Proof of Fan in Heating	0	0	1	None	644	1	Heating	
Dehumidification Setpoint	60	0	100	%	645	1	Dehumidification	Only applicable when Dehumidification source is NOT remote (ex.: C1000-HU)
Dehumid Proportional	5	0	100	%	646	1	Dehumidification	
Dehumid Integral	20	0	100	min	647	1	Dehumidification	
DehumidOut Temp Cutoff	13	-40	100	deg C	648	100	Dehumidification	
Dehumid Fan Restart Offset	255	0	255	%	649	1	Dehumidification	Set larger than 100 to deactivate
Return Humidity Calibration	0	-100	100	%	650	1	Calibration	
Integral Dropoff Rate	3	0	4	None	651	1	Zone	0=Slow, 4=Fast
Econo Change Over Mode	0	0	3	None	652	1	Economizer	0=DRY BULB / 1=SINGLE_ENTHALPY / 2=DIFFERENTIAL_ENTHALPY / 3=EXTERNAL_CONTACT
Outside Humidity Calibration	0	-100	100	%	653	1	Calibration	
Single Enthalpy Curve	2	0	4	None	654	1	Economizer	0=A / 1=B / 2=C / 3=D / 4=E
Extra Comm Delay	0	0	1500	msec	655	1	Network	Extra delay that the master should wait when forwarding messages before declaring a timeout (intended for PL-TREE-COM)
Cool 5 SP	0	0	100	%	656	1	Cooling	
Cool 5 Diff	0	0	100	%	657	1	Cooling	
Cool 6 SP	0	0	100	%	658	1	Cooling	
Cool 6 Diff	0	0	100	%	659	1	Cooling	
Cool 7 SP	0	0	100	%	660	1	Cooling	
Cool 7 Diff	0	0	100	%	661	1	Cooling	

Cool 8 SP	0	0	100	%	662	1	Cooling	
Cool 8 Diff	0	0	100	%	663	1	Cooling	
Vernier Activation Point	15	0	100	%	664	1	Cooling	
Vernier Deactivation Point	5	0	100	%	665	1	Cooling	
Fan Startup Delay	15	0	250	sec	666	1	Fan	
Alternating Priority Delay	30	1	250	min	667	1	Priority	
Econo Halt Mech Pos	15	0	100	%	668	1	Economizer	
Fan Pre Delay	0	0	250	min	669	1	Fan	
Fan Post Delay	2	0	250	min	670	1	Fan	
Chip Type	0	0	1	None	671	1	Device	0=PIC18F6722 / 1=PIC18F67K40

PROLON

Ver 7.5.0

Modbus
Rooftop Network Variable Outputs

Modbus Object Type: Input Registers

Name	Units	Modbus Reg #	Multiplier	Notes
Supply Temp	deg C	1	100	
Return Temp	deg C	2	100	
Outside Temp	deg C	3	100	
Occupancy	None	4	1	
Stage 1 Cooling	None	5	1	0=OFF / 1=ON (0-100 when analog)
Digital Output 4 Heating	None	6	1	
Analog Output 1 Heating	%	7	1	
Math1	%	8	1	
Math2	%	9	1	
Math3	%	10	1	
Math4	%	11	1	
Math5	%	12	1	
Stage 2 Cooling	None	13	1	0=OFF / 1=ON
Stage 3 Cooling	None	14	1	0=OFF / 1=ON
Stage 4 Cooling	None	15	1	0=OFF / 1=ON
Fan Command	None	16	1	0=OFF / 1=ON
Digital Output 5	None	17	1	(Heating Stage --> 0-100%) (Exhaust Fan OFF or ON)
EconoPos	%	18	1	
Zone Temp	deg C	19	100	
HeatSP	deg C	20	100	
CoolSP	deg C	21	100	
Mix/Auxiliary Temp	deg C	22	100	
Pressure	in.H2O	23	100	
Fan Proof	None	24	1	0=OFF / 1=ON
CO2 Level	ppm	25	1	

BypassPos	%	26	1	
Demand	%	27	1	Demand of the zone controlled by this Adv.Rooftop
Filter Status	None	28	1	0=Clean / 1=Dirty
Dehumidification Active	None	29	1	ON when dehumidification is active (either through the economizer or mechanical cooling)
Economizer Target Temp	deg C	30	100	The temperature that the economizer is trying to reach (Supply Control Mode only)
Occup Override Status	None	31	1	
Return Humidity (RTU reading)	%	32	1	Only applicable when Dehumidification source is NOT remote (ex.: C1000-HU)
Dehumidification Demand	%	33	1	Only applicable when Dehumidification source is NOT remote (ex.: C1000-HU)
Outside Humidity	%	34	1	
Outside Enthalpy	BTU/lb	35	10	
Return Enthalpy	BTU/lb	36	10	
Free Cooling Permitted	None	37	1	
Quantity of Cooling Stages ON	None	38	1	0=ALL STAGES OFF / 1=STAGE 1 ON / 2=STAGE 1&2 ON / … / 8=ALL 8 STAGES ON
Alarm Status	None	39	1	0=OK / 1=Alarm

Modbus
Rooftop Network Variable Inputs

Modbus Object Type: Holding Registers

Name	Units	Modbus Reg #	Multiplier	Notes
Occupancy Input	None	136	1	Allows the occupancy to be set by another network device (0=Unoccupied, 1=Occupied, 2=AUTO)
Temporary Occup Override	None	137	1	Write a 1 here to activate unoccupied mode override (120 min - simulates tstat button push)
Zone Temp Input	deg C	138	100	Write a zone temp (useful for thermostat)
Outside Temp Input	deg C	139	100	Allows the outside temp to be set by another network device. Physical sensor (if available) takes priority. Set to 0x7FFF to invalidate.
Supply Water Temp Input	deg C	142	1	Allows the supply water temp to be set by another network device.
Outside Humidity Input	%	143	10	Allows the outside humidity to be set by another network device.