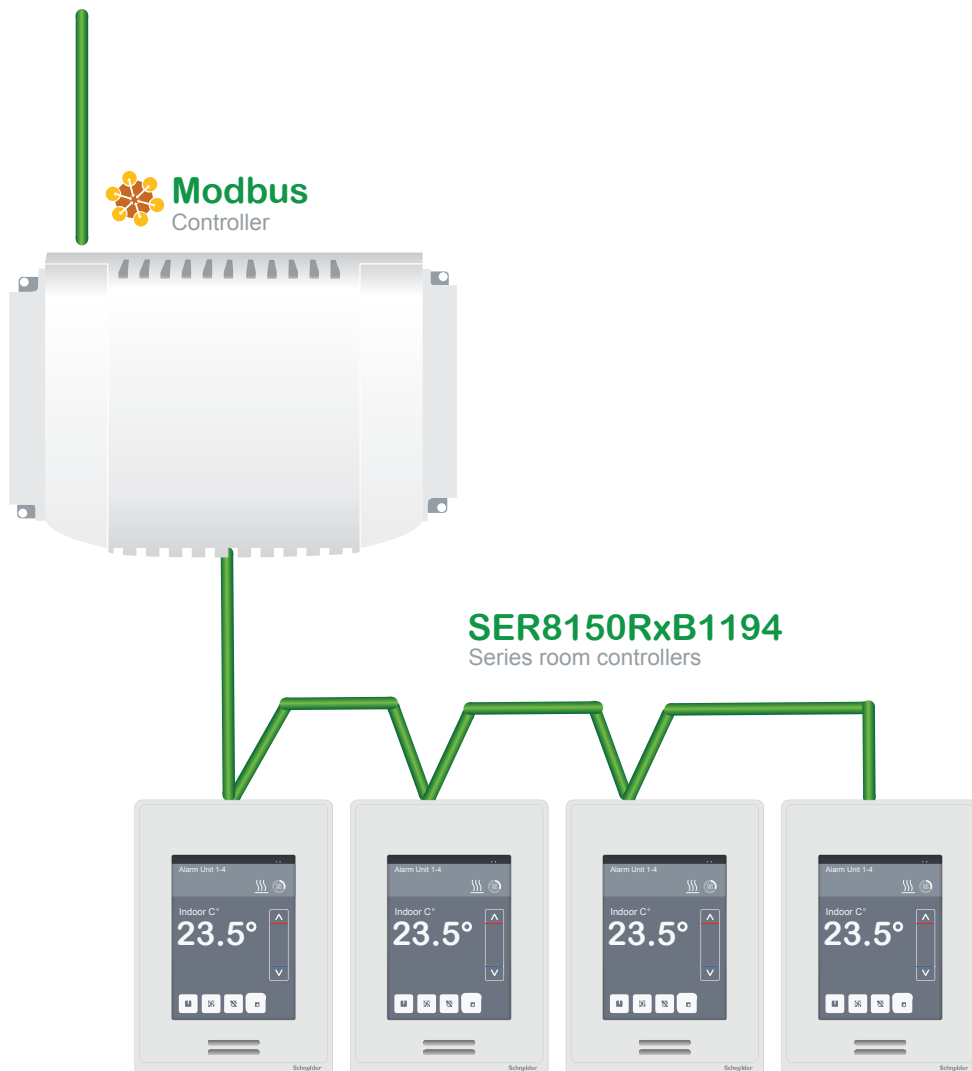


Modbus Integration

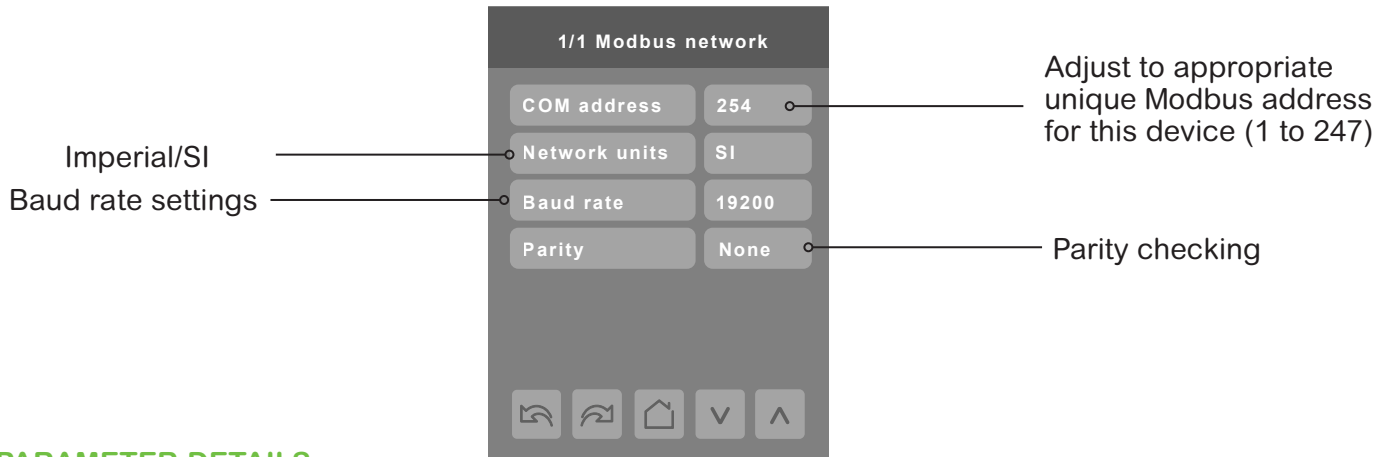
Modbus Functionality for SER8150RxB1194



Building Management System



CONFIGURATION



PARAMETER DETAILS

Configuration Parameters Default Value	Significance and Adjustments
Comm address Default value: 254	Communication Address Remote Controller networking address Default value of 254 disables Modbus communication for the Remote Controller. Valid address range is set at 1 to 247, and each Modbus device must have a unique address. Other values not recommended for Modbus Range: 0 to 254
Network units Default value: SI	Measurement Units Imperial: network units shown as Imperial units. SI: network units shown as International Metric units. Choices: Imperial or SI
Baud rate Default value: 19200	Modbus Baud Rate Leave the value as is unless instructed otherwise as this automatically detects Modbus baud rate. Choices: 4800, 9600, 19200, 38400, 57600
Parity Default value: Even	Parity Parity checking of the data character frame. Choices: None, Odd and Even

MAPPING

The mapping is directly based on database IDs.

The correspondence is the following:

function 1, register 1 (Modbus addr 1)	<=> DB id 0x6000 (BOs)
function 1/5, register 5001 (Modbus addr 5001)	<=> DB id 0x4000 (BVs)
function 2, register 1 (Modbus addr 10001)	<=> DB id 0x5000 (BIs)
function 4, register 1 (Modbus addr 30001)	<=> DB id 0x3000 (AHVs)
function 4, register 1001 (Modbus addr 31001)	<=> DB id 0x7000 (AIs)
function 4, register 5001 (Modbus addr 35001)	<=> DB id 0xC000 (MSIs)
function 3/6, register 1 (Modbus addr 40001)	<=> DB id 0x1000 (MVs)
function 3/6, register 4001 (Modbus addr 44001)	<=> DB id 0x2000 (AVs)
function 3, register 8001 (Modbus addr 48001)	<=> DB id 0x8000 (AOs)
function 3, register 9001 (Modbus addr 49001)	<=> DB id 0x9000 (AHOs)

MODBUS 30000+ ADDRESS FUNCTIONS

Object Name	Modbus Register	Modbus Address	Index	Low Value	High Value
Room Temperature	1	30001	0	-40	122
Outdoor Temperature	2	30002	1	-40	150
Room Humidity	4	30004	2	5	95
CO2 Level	7	30007	3	0	500
Light Sensor Level	1002	31002	1	0	30000
Wireless Zone 1 IEEE Address	1011	31011	4	0x0000	0xFFFF
Wireless Zone 2 IEEE Address	1012	31012	5	0x0000	0xFFFF
Wireless Zone 3 IEEE Address	1013	31013	6	0x0000	0xFFFF
Wireless Zone 4 IEEE Address	1014	31014	7	0x0000	0xFFFF
Wireless Zone 5 IEEE Address	1015	31015	8	0x0000	0xFFFF
Wireless Zone 6 IEEE Address	1016	31016	9	0x0000	0xFFFF
Wireless Zone 7 IEEE Address	1017	31017	10	0x0000	0xFFFF
Wireless Zone 8 IEEE Address	1018	31018	11	0x0000	0xFFFF
Wireless Zone 9 IEEE Address	1019	31019	12	0x0000	0xFFFF
Wireless Zone 10 IEEE Address	1020	31020	13	0x0000	0xFFFF
Refrigerant Circuit A	1025	31025	14	1	30
Indoor Unit A	1026	31026	15	1	64
Refrigerant Circuit B	1027	31027	16	1	30
Indoor Unit B	1028	31028	17	1	64
Refrigerant Circuit C	1029	31029	18	1	30
Indoor Unit C	1030	31030	19	1	64
Refrigerant Circuit D	1031	31031	20	1	30
Indoor Unit D	1032	31032	21	1	64

Refrigerant Circuit E	1033	31033	22	1	30
Indoor Unit E	1034	31034	23	1	64
Refrigerant Circuit F	1035	31035	24	1	30
Indoor Unit F	1036	31036	25	1	64
Refrigerant Circuit G	1037	31037	26	1	30
Indoor Unit G	1038	31038	27	1	64
Refrigerant Circuit H	1039	31039	28	1	30
Indoor Unit H	1040	31040	29	1	64
Indoor Unit A Alarm	1041	31041	30	0	256
Indoor Unit B Alarm	1042	31042	31	0	256
Indoor Unit C Alarm	1043	31043	32	0	256
Indoor Unit D Alarm	1044	31044	33	0	256
Indoor Unit E Alarm	1045	31045	34	0	256
Indoor Unit F Alarm	1046	31046	35	0	256
Indoor Unit G Alarm	1047	31047	36	0	256
Indoor Unit H Alarm	1048	31048	37	0	256
ZigBee Status	5003	35003	1	0	4
Weekday	5005	35005	3	0	6
Program Status	5006	35006	4	0	5
Program Error	5007	35007	5	0	5
Wireless Zone 1 Status	5008	35008	6	0	4
Wireless Zone 2 Status	5009	35009	7	0	4
Wireless Zone 3 Status	5010	35010	8	0	4
Wireless Zone 4 Status	5011	35011	9	0	4
Wireless Zone 5 Status	5012	35012	10	0	4

Wireless Zone 6 Status	5013	35013	11	0	4
Wireless Zone 7 Status	5014	35014	12	0	4
Wireless Zone 8 Status	5015	35015	13	0	4
Wireless Zone 9 Status	5016	35016	14	0	4
Wireless Zone 10 Status	5017	35017	15	0	4
Wireless Zone 1 Battery	5018	35018	16	0	2
Wireless Zone 2 Battery	5019	35019	17	0	2
Wireless Zone 3 Battery	5020	35020	18	0	2
Wireless Zone 4 Battery	5021	35021	19	0	2
Wireless Zone 5 Battery	5022	35022	20	0	2
Wireless Zone 6 Battery	5023	35023	21	0	2
Wireless Zone 7 Battery	5024	35024	22	0	2
Wireless Zone 8 Battery	5025	35025	23	0	2
Wireless Zone 9 Battery	5026	35026	24	0	2
Wireless Zone 10 Battery	5027	35027	25	0	2
Wireless Zone 1 Communication Status	5028	35028	26	0	2
Wireless Zone 2 Communication Status	5029	35029	27	0	2
Wireless Zone 3 Communication Status	5030	35030	28	0	2
Wireless Zone 4 Communication Status	5031	35031	29	0	2

Wireless Zone 5 Communication Status	5032	35032	30	0	2
Wireless Zone 6 Communication Status	5033	35033	31	0	2
Wireless Zone 7 Communication Status	5034	35034	32	0	2
Wireless Zone 8 Communication Status	5035	35035	33	0	2
Wireless Zone 9 Communication Status	5036	35036	34	0	2
Wireless Zone 10 Communication Status	5037	35037	35	0	2
Indoor Unit Status	5044	35044	36	0	2

MODBUS 40000+ ADDRESS FUNCTIONS

Object Name	Modbus Register	Modbus Address	Index	Low Value	High Value
Temperature Scale	1	40001	0	0	1
Display Language	2	40002	1	0	5
Room Humidity Display	10	40010	2	0	1
Network Units	23	40023	5	0	1
Time Format	27	40027	7	0	1
HMI Colour	29	40029	8	0	4
Main Display	30	40030	9	0	1
Long Message Background Colour	31	40031	10	0	6
Use Standby Screen	32	40032	11	0	3
Clock Menu	54	40054	13	0	3
Month	60	40060	14	0	11
Wireless Zone 1 Set Function	66	40066	17	0	5
Wireless Zone 2 Set Function	67	40067	18	0	5
Wireless Zone 3 Set Function	68	40068	19	0	5
Wireless Zone 4 Set Function	69	40069	20	0	5
Wireless Zone 5 Set Function	70	40070	21	0	5
Wireless Zone 6 Set Function	71	40071	22	0	5
Wireless Zone 7 Set Function	72	40072	23	0	5
Wireless Zone 8 Set Function	73	40073	24	0	5
Wireless Zone 9 Set Function	74	40074	25	0	5
Wireless Zone 10 Set Function	75	40075	26	0	5
Custom Button Icon	81	40081	29	0	16
Custom Button Behavior	82	40082	30	0	11
Modbus Baud Rate	105	40105	54	0	4
Modbus Parity Bit	106	40106	55	0	2
Wired Indoor Unit	118	40118	57	0	1
ON/OFF Mode	119	40119	58	0	1
System Mode Control	120	40120	59	0	4
Fan Speed	121	40121	60	0	3
Air Direction	122	40122	61	0	6
System Mode Status	123	40123	62	0	5
ON OFF Mode Prohibition	124	40124	63	0	1
System Mode Prohibition	125	40125	64	0	1
Setpoint Prohibition	126	40126	65	0	1
Air Direction Prohibition	127	40127	66	0	1
Fan Speed Prohibition	128	40128	67	0	1
Sensor Control	129	40129	68	0	1
Time Source	130	40130	69	0	1
Calibrate Room Temperature Sensor	4007	44007	7	-50	50
Calibrate Humidity Sensor	4013	44013	8	-15	15
Main Password	4017	44017	14	0	9999
COM Address	4018	44018	9	0	254
Model Number	4019	44019	0	200	201
Low Backlight	4033	44033	5	0	100
Night Backlight	4034	44034	6	0	100
User Password	4039	44139	15	0	9999
Time	4110	44110	17	0	1439

Object Name	Modbus Register	Modbus Address	Index	Low Value	High Value
Year	4111	44111	18	2000	2100
Day	4112	44112	19	1	31
Lua Parameter A (AV25)	4117	44117	23	-32768	32767
Lua Parameter B (AV26)	4118	44118	24	-32768	32767
Lua Parameter C (AV27)	4119	44119	25	-32768	32767
Lua Parameter D (AV28)	4120	44120	26	-32768	32767
Lua Parameter E (AV29)	4121	44121	27	-32768	32767
Lua Parameter F (AV30)	4122	44122	28	-32768	32767
Hardware Revision	4123	44123	4	8	9
Keyboard Value	4126	44124	31	0	35
Effective Setpoint	4140	44140	33	60.8	86
High Cooling Demand Limit	4141	44141	34	60.8	86
Low Cooling Demand Limit	4142	44142	35	60.8	86
High Heating Demand Limit	4143	44143	36	60.8	86
Low Heating Demand Limit	4144	44144	37	60.8	86
High Drying Demand Limit	4145	44145	38	60.8	86
Low Drying Demand Limit	4146	44146	39	60.8	86
High Auto Mode Demand Limit	4147	44147	40	60.8	86
Low Auto Mode Demand Limit	4148	44148	41	60.8	86

MODBUS 50000+ ADDRESS FUNCTIONS

Object Name	Modbus Register	Modbus Address	Index	Low Value	High Value
Filter Alarm	5001	5001	0	0	1
Window Alarm	5003	5003	1	0	1
PIR Local Motion	5004	5004	2	0	1
Low Battery Alarm	5006	5006	3	0	1
Window Contact Installed	5007	5007	4	0	1
Window Contact Status	5008	5008	5	0	1
Door Contact Installed	5009	5009	6	0	1
Door Contact Status	5010	5010	7	0	1
Display Long Screen Message	5011	5011	8	0	1
Force High Backlight	5012	5012	9	0	1
ZigBee PIR Sensor Installed	5019	5019	10	0	1
ZigBee Sensor Motion	5020	5020	11	0	1