Merlin RS Series

Modbus Functionality

This document provides details on Modbus functionality of the Merlin RS range.

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Parity: None / Data-Word length: 8-bit / Stop bit: 1

Register/Address	Description	Notes	Read/Write
40000-40019	Reserved		
40020	Baud Rate	Type: uINT, Factor:1 9600 (Default), 19200, 38400, 57600 via dipswitch	R
40021	Address	Type: uINT, Factor:1, 0-127 via DIP Switch	R
40022	Name	ASCI character	R
40023	Name	ASCI character	R
40024	N/A	N/A	R
40025	CO2	Type: INT, Factor: 1, Unit: ppm	R
40026	Temperature	Type: INT, Factor: 10, Unit: °C/°F	R
40027	Humidity	Type: INT, Factor: 10, Unit: %RH	R
*40028	CO2 +10V O/P	Type: INT, Factor: 10, Unit: V	R / R/W
*40029	Temperature +10V O/P	Type: INT, Factor: 10, Unit: V	R / R/W
*40030	Humidity +10V O/P	Type: INT, Factor: 10, Unit: V	R / R/W
40031	CO2 Offset	Type: INT, Factor: 1, Unit: ppm (-5000 to 5000)	R/W
40032	Temperature Offset	Type: INT, Factor: 10, Unit: °C/°F (-100/4 to 100/140)	R/W
40033	Humidity Offset	Type: INT, Factor: 10, Unit: %RH (-100 to 100)	R/W
40034	Pre-Alarm Level (Low)	Type: INT, Factor: 1, Unit: ppm (0 to 5000ppm)	R/W
40035	Alarm Level (High)	Type: INT, Factor: 1, Unit: ppm (0 to 5000ppm)	R/W
40036	Relay Set Point	Type: INT, Factor: 1, Unit: ppm (0 to 5000ppm)	R/W
40037	Relay Alarm	Type: INT, Factor: 1, 0: (No alarm) 1: (Alarm, relay changed status)	R
40038	Relay Polarity	Type: INT, Factor: 1, 0: Normal (N/O) 1: Reversed (N/C)	R/W
40039	Temperature Unit	Type: INT, Factor: 1, 1: °C 2: °F	R/W
40040	CO2 Alarm Status	Type: INT, Factor: 1, 1: (No alarm) 2: (Pre-Alarm) 3: (Alarm)	R

40041	CO2 Maximum	Type: uINT, Factor: 1, Unit: ppm (0 to 5000ppm)	R/W
40042	CO2 Minimum	Type: uINT, Factor: 1, Unit: ppm (0 to 5000ppm)	R/W
40043	CO2 Voltage Max	Type: uINT, Factor: 10, Unit: V (0 to 10V)	R/W
40044	CO2 Voltage Min	Type: uINT, Factor: 10, Unit: V (0 to 10V)	R/W
40045	Temperature Max	Type: INT, Factor: 10, Unit: °C/°F (-20 to 60°C)	R/W
40046	Temperature Min	Type: INT, Factor: 10, Unit: °C/°F (-20 to 60°C)	R/W
40047	Temp Voltage Max	Type: uINT, Factor: 10, Unit: V (0 to 10V)	R/W
40048	Temp Voltage Min	Type: uINT, Factor: 10, Unit: V (0 to 10V)	R/W
40049	Humidity Max	Type: uINT, Factor: 10, Unit: %RH (0 to 100%)	R/W
40050	Humidity Min	Type: uINT, Factor: 10, Unit: %RH (0 to 100%)	R/W
40051	Humidity Voltage Max	Type: uINT, Factor: 10, Unit: V (0 to 10V)	R/W
40052	Humidity Voltage Min	Type: uINT, Factor: 10, Unit: V (0 to 10V)	R/W
40053	CO2 Voltage Feedback	Type: uINT, Factor: 10, Unit: V	R
40054	Temp Voltage Feedback	Type: uINT, Factor: 10, Unit: V	R
40055	Humidity Voltage Feedback	Type: uINT, Factor: 10, Unit: V	R
40056	CO2 Voltage Alarm	Type: INT, Factor: 1, 0: (No alarm) 1: (Alarm) +/-10% out	R
40057	Temperature Voltage Alarm	Type: INT, Factor: 1, 0: (No alarm) 1: (Alarm) +/-10% out	R
40058	Humidity Voltage Alarm	Type: INT, Factor: 1, 0: (No alarm) 1: (Alarm) +/-10% out	R
40059	Reserved		
*40060	CO2 +10V O/P (40028)	Type: INT, Factor: 1, 0: (O/P based on Writeable Value - 40028) 1: (O/P based on CO2 Sensor - 40028)	R/W
*40061	Temperature +10V O/P (40029)	Type: INT, Factor: 1, 0: (O/P based on Writeable Value - 40029) 1: (O/P based on Temperature sensor - 40029)	R/W
*40062	Humidity +10V O/P (40030)	Type: INT, Factor: 1, 0: (O/P based on Writeable Value - 40030) 1: (O/P based on Humidity Sensor - 40030)	R/W
40063	N/A		
*40064 (see note)	Set Point	Type: uINT, Factor: 10, Unit: °C/°F (10 to 25)	R/W
*40065 (see note)	Adjusted Value	Type: INT, Factor: 10, Unit: °C/°F (-2 to +2)	R/W

Note: Addresses 40064 & 65 are only available on the special RS Set Point Model

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