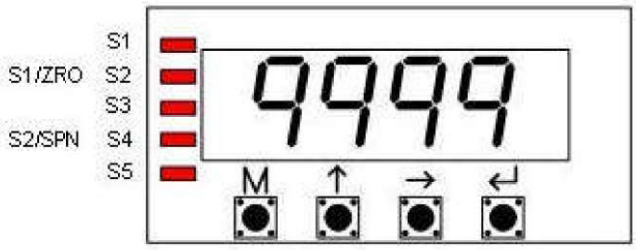
**Quick Start** **Ver2.0**




| Key operation | Description |
|---|---|
| M | Change the setting screen / Save |
| ↑ | Number increase |
| → | Move cursor Right / Number decrease |
| ↵ | Confirm |
| ↑ + → | Exit configuration menu |

| Menu Tree Structure | | | |
|---|---|---|---|
| **0-0** | **111.1** | NNORMAL DISPLAY | Press M, show [PAG1] |
| **0-1** | **PAG1** | INPUT SET | Press ↵ , show [IMD] / Press M, show [PAG2] |
| **0-2** | **PAG2** | RELAY OUTPUT | Press ↵ , show [SSET] / Press M, Show [PAG3] |
| **0-3** | **PAG3** | ANALOG OUTPUT | Press ↵ , show [OMD1] / Press M, show [PAG4] |
| **0-4** | **PAG4** | RS485 SET | Press ↵ , show [ADDR] / Press M, Show [CODE] |
| **0-5** | **CODE** | FACTOR SET | Press ↵ , show [0000] / Press M, Show[111.1] Normal display |
| | | | |
| **1-1** | **IMD** | Input mode | Press M, show [0-20] |
| **1-2** | **0-20** | | Range [0-20mA , 4-20mA , 0-5V , 1-5V , 0-10V] (Press ↑ to set) / Press M, show [DOT] |
| **1-3** | **DOT** | Decimal Point | Press M, show [0.0] |
| **1-4** | **0.0** | | Range [**0. , 0.0 , 0.00 , 0.000**] (Press → to set) / Press M, show [DSH] |
| **1-5** | **DSH** | High scale | Press M, Show [100.0] |
| **1-6** | **100.0** | | Range [-1999~9999] (Press ↑ → to set) / Press M, show[ DSL] |
| **1-7** | **DSL** | Low scale | Press M, show [000.0] |
| **1-8** | **000.0** | | Range [-1999~9999] (Press ↑ → to set) / Press M, show [LCUT] |
| **1-9** | **LCUT** | Low Cut | Press M, show [000.0] |
| **1-10** | **000.0** | | Range [-1999~9999] (Press ↑ → to set) / Press M, show [AVG] |
| **1-11** | **AVG** | Average update | Press M, show [000.0] |
| **1-12** | **01** | | Range [01~99] (Press ↑ → to set) / Press M, show [DIFT] |
| **1-13** | **DIFT** | Digital filter | Press M, show [000.0] |
| **1-14** | **00** | | Range [00~99] (Press ↑ → to set) / Press M, show [111.1] |
| | | | |
| **2-1** | **SSET** | Start comparison value | Press M, show [0000] |
| **2-2** | **0000** | | Range [-1999~9999] (Press ↑ → to set) / Press M, show [ SDY] |
| **2-3** | **SDY** | Start delay time for Relay energized | Press M, show [0000] |

| | | | |
|---|---|---|---|
| **2-4** | **0000** | | Range [0000~9999]sec (Press ↑ → to set)<br>/ Press M, show[CON1] |
| **2-5** | **CON1** | Relay 1 COMM mode | Press M, show [OFF] |
| **2-6** | **OFF** | | Range [OFF,ON] (Press ↑ to set)<br>/ Press M, show [ RMD1] |
| **2-7** | **RMD1** | Relay 1 energized mode | Press M, show [HI] |
| **2-8** | **HI** | | Range [NONE,HI,LO] (Press ↑ to set)<br>/ Press M, show [ SET1] |
| **2-9** | **SET1** | Comparison value 1 | Press M, show [0000] |
| **2-10** | **0800** | | Range [-1999~9999] (Press ↑ → to set)<br>/ Press M, show [ DB1] |
| **2-11** | **DB1** | Relay 1 Hysteresis | Press M, show [0000] |
| **2-12** | **0000** | | Range [0000~9999] (Press ↑ → to set)<br>/ Press M, show [ ODY1] |
| **2-13** | **ODY1** | Relay 1 energized delay time | Press M, show [0000] |
| **2-14** | **0000** | | Range [0000~9999]sec (Press ↑ → to set)<br>/ Press M, show [FDY1] |
| **2-15** | **FDY1** | Relay 1 de-energized delay time | Press M, show [0000] |
| **2-16** | **0000** | | Range [0000~9999]sec (Press ↑ → to set)<br>/ Press M, show [CON2] |
| **2-17** | **CON2** | Relay 2 COMM mode | Press M, show [OFF] |
| **2-18** | **OFF** | | Range [OFF,ON] (Press ↑ to set)<br>/ Press M, show [ RMD2] |
| **2-19** | **RMD2** | Relay 2 energized mode | Press M, show [HI] |
| **2-20** | **HI** | | Range [NONE,HI,LO] (Press ↑ to set)<br>/ Press M, show [ SET2] |
| **2-21** | **SET2** | Comparison value 2 | Press M, show [0000] |
| **2-22** | **0800** | | Range [-1999~9999] (Press ↑ → to set)<br>/ Press M, show [ DB2] |
| **2-23** | **DB2** | Relay 2 Hysteresis | Press M, show [0000] |
| **2-24** | **0000** | | Range [0000~9999] (Press ↑ → to set)<br>/ Press M, show [ ODY2] |
| **2-25** | **ODY2** | Relay 2 energized delay time | Press M, show [0000] |
| **2-26** | **0000** | | Range [0000~9999]sec (Press ↑ → to set)<br>/ Press M, show [FDY2] |
| **2-27** | **FDY2** | Relay 2 de-energized delay time | Press M, show [0000] |
| **2-28** | **0000** | | Range [0000~9999]秒(Press ↑ → to set)<br>/ Press M, show [111.1] in 2 relay model<br>show [CON3] in 3 relay model |
| **2-29** | **CON3** | Relay 3 COMM mode | Press M, show [OFF] |
| **2-30** | **OFF** | | Range [OFF,ON] (Press ↑ to set)<br>/ Press M, show [ RMD3] |
| **2-31** | **RMD3** | Relay 3 energized mode | Press M, show [HI] |
| **2-32** | **HI** | | Range [NONE,HI,LO] (Press ↑ to set)<br>/ Press M, show [ SET3] |
| **2-33** | **SET3** | Comparison value 3 | Press M, show [0000] |
| **2-34** | **0800** | | Range [-1999~9999] (Press ↑ → to set)<br>/ Press M, show [ DB3] |

| | | | |
|---|---|---|---|
| **2-35** | **DB3** | Relay 3 Hysteresis | Press M, show [0000] |
| **2-36** | **0000** | | Range [0000~9999] (Press ↑ → to set)<br>/ Press M, show [ ODY3] |
| **2-37** | **ODY3** | Relay 3 energized delay time | Press M, show [0000] |
| **2-38** | **0000** | | Range [0000~9999]sec (Press ↑ → to set)<br>/ Press M, show [FDY3] |
| **2-39** | **FDY3** | Relay 3 de-energized delay time | Press M, show [0000] |
| **2-40** | **0000** | | Range [0000~9999]sec (Press ↑ → to set)<br>/ Press M, show[CON4] |
| **2-41** | **CON4** | Relay 4 COMM mode | Press M, show [OFF] |
| **2-42** | **OFF** | | Range [OFF,ON] (Press ↑ to set)<br>/ Press M, show [ RMD4] |
| **2-43** | **RMD4** | Relay 4 energized mode | Press M, show [HI] |
| **2-44** | **HI** | | Range [NONE,HI,LO] (Press ↑ to set)<br>/ Press M, show [ SET4] |
| **2-45** | **SET4** | Comparison value 4 | Press M, show [0000] |
| **2-46** | **0800** | | Range [-1999~9999] (Press ↑ → to set)<br>/ Press M, show [ DB4] |
| **2-47** | **DB4** | Relay 4 Hysteresis | Press M, show [0000] |
| **2-48** | **0000** | | Range [0000~9999] (Press ↑ → to set)<br>/ Press M, show [ ODY4] |
| **2-49** | **ODY4** | Relay 4 energized delay time | Press M, show [0000] |
| **2-50** | **0000** | | Range [0000~9999]sec (Press ↑ → to set)<br>/ Press M, show [FDY4] |
| **2-51** | **FDY4** | Relay 4 de-energized delay time | Press M, show [0000] |
| **2-52** | **0000** | | Range [0000~9999]sec (Press ↑ → to set)<br>/ Press M, show [111.1] in 4 relay model<br>show [RMD5] in 5 relay model |
| **2-53** | **RMD5** | Relay 5 energized mode | Press M, show [HI] |
| **2-54** | **HI** | | Range [NONE,HI,LO] (Press ↑ to set)<br>/ Press M, show [ SET5] |
| **2-55** | **SET5** | Comparison value 5 | Press M, show [0000] |
| **2-56** | **0800** | | Range [-1999~9999] (Press ↑ → to set)<br>/ Press M, show [ DB5] |
| **2-57** | **DB5** | Relay 5 Hysteresis | Press M, show [0000] |
| **2-58** | **0000** | | Range [0000~9999] (Press ↑ → to set)<br>/ Press M, show [ ODY5] |
| **2-59** | **ODY5** | Relay 5 energized delay time | Press M, show [0000] |
| **2-60** | **0000** | | Range [0000~9999]sec (Press ↑ → to set)<br>/ Press M, show [FDY5] |
| **2-61** | **FDY5** | Relay 5 de-energized delay time | Press M, show [0000] |
| **2-62** | **0000** | | Range [0000~9999]sec (Press ↑ → to set)<br>/ Press M, show[111.1] |
| | | | |
| **3-1** | **OMD1** | Analogue Output 1 type | Press M, show [0-20] |
| **3-2** | **0-20** | | Range [0-20mA , 4-20mA , 0-5V , 1-5V , 0-10V] (Press ↑ to set) |

| | | | |
|---|---|---|---|
| | | | / Press M, show [HIP1] |
| **3-3** | **HIP1** | Percentage of output upper limit 1 | Press M, show [100.0] |
| **3-4** | **1000** | | Range [000.0~100.0]% (Press ↑ → to set)<br>/ Press M, show [LOP1] |
| **3-5** | **LOP1** | Percentage of output lower limit 1 | Press M, show [000.0] |
| **3-6** | **0000** | | Range [000.0~100.0] %( Press ↑ → to set)<br>/ Press M, show [DAH1] |
| **3-7** | **DAH1** | Output upper limit 1 corresponding value | Press M, show [1000] |
| **3-8** | **1000** | | Range [-1999~9999] (Press ↑ → to set)<br>/ Press M, show [DAL1] |
| **3-9** | **DAL1** | Output lower limit 1 corresponding value | Press M, show [0000] |
| **3-10** | **0000** | | Range [-1999~9999] (Press ↑ → to set)<br>/ Press M, show [111.1] in 1DA model<br>show [OMD2] in 2DA model |
| **3-11** | **OMD2** | Analogue Output 2 type | Press M, show [0-20] |
| **3-12** | **0-20** | | Range [0-20mA , 4-20mA , 0-5V , 1-5V , 0-10V] (Press ↑ to set)<br>/ Press M, show [HIP1] |
| **3-13** | **HIP2** | Percentage of output upper limit 2 | Press M, show [100.0] |
| **3-14** | **1000** | | Range [000.0~100.0]% (Press ↑ → to set)<br>/ Press M, show [LOP1] |
| **3-15** | **LOP2** | Percentage of output lower limit 2 | Press M, show [000.0] |
| **3-16** | **0000** | | Range [000.0~100.0] %( Press ↑ → to set)<br>/ Press M, show [DAH1] |
| **3-17** | **DAH2** | Output upper limit 2 corresponding value | Press M, show [1000] |
| **3-18** | **1000** | | Range [-1999~9999] (Press ↑ → to set)<br>/ Press M, show [DAL1] |
| **3-19** | **DAL2** | Output lower limit 2 corresponding value | Press M, show [0000] |
| **3-20** | **0000** | | Range [-1999~9999] (Press ↑ → to set)<br>/ Press M, show [111.1] |
| | | | |
| **4-1** | **ADDR** | RS485 Address | Press M, show [001] |
| **4-2** | **001** | | Range [001~255] (Press ↑ → to set)<br>/ Press M, show [BUAD] |
| **4-3** | **BUAD** | Baud rate | Press M, show [96] |
| **4-4** | **96** | | Range [12,24,48,96,192,384] (Press ↑ → to set)<br>/ Press M, show [PARI] |
| **4-5** | **PARI** | Parity | Press M, show [96] |
| **4-6** | **N.8.1** | | Range [N.8.1,N.8.2,O.8.1,E.8.1] (Press ↑ → to set)<br>/ Press M, show [111.1] |
| | | | |
| **5-1** | **0000** | FACTOR GROUP | Range [0000~9999] (Press ↑ → to set)<br>Input [0000] / press M, show program version<br>Input [0095] / press M, Restore factory defaults<br>Input [0020] / press M, LED[ZRO] Flicker, adjust the lower limit<br>Input [0030] / press M, show[OZR1] Flicker, adjust the output 1 lower limit |
| **5-2** | **LED[ZRO] Flicker** | Input lower limit configuration | (Press ↑ increase, → decrease)<br>Press M, LED[SPN] Flicker, adjust the input upper limit |
| **5-3** | **LED[SPN] Flicker** | Input upper limit configuration | (Press ↑ increase, → decrease) |

| | | | |
|---|---|---|---|
| | | | Press M, show[111.1] |
| **5-4** | **OZR1** | Output 1 lower limit configuration | (Press ↑ increase, → decrease)<br>Press M, show [OSP1] |
| **5-5** | **OSP1** | Output 1 upper limit configuration | (Press ↑ increase, → decrease)<br>Press M, show [OZR2] |
| **5-6** | **OZR2** | Output 2 lower limit configuration | (Press ↑ increase, → decrease)<br>Press M, show [OSP2] |
| **5-7** | **OSP2** | Output 2 upper limit configuration | (Press ↑ increase, → decrease)<br>Press M, show [111.1] |

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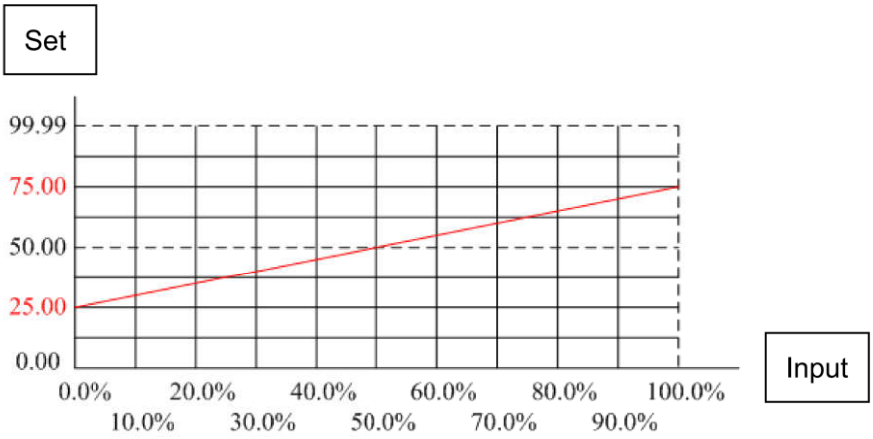
**PAG1 - INPUT SET function description**

**Set IMD(Input mode)** 0-20mA , 4-20 mA , 0-5V , 1-5V , 0-10V

Set **DSH (**Input high scale)-1999~9999 / **DSL (**Input low scale)-1999~9999

example :DSH:75.00 DSL:25.00




**PAG3 - ANALOG OUTPUT SET function description**

**Set OMD(output mode)** 0-20mA , 4-20 mA , 0-5V , 1-5V , 0-10V

**Set HIP(**Percentage of output upper limit**) 0.0~100.0%**

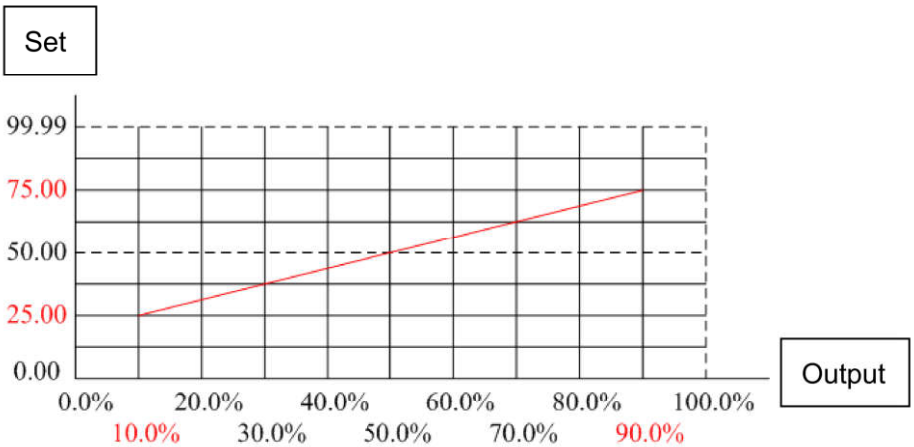
**LOP(**Percentage of output lower limit**) 0.0~100.0%**

**DAH(**Output upper limit corresponding value) **-1999~9999**

**DAL(**Output lower limit corresponding value) **-1999~9999**

example :HIP:90.0% LOP:10.0%

DAH:75.00 DAL:25.00



Modbus RTU Mode(Configuration)(Base0)

| Register Number | | Register Name | Type | Saved | Unit | Range | Register Description |
|---|---|---|---|---|---|---|---|
| 1000<br>1001<br>1002<br>1003 | 0x03E8<br>0x03E9<br>0x03EA<br>0x03EB | Product Type | R | N | ASCII | UMDC<br>UMAC | |
| 1004 | 0x03EC | Firmware_version | R | N | 0.1 | 1~9999 | Ver |
| 1005 | 0x03ED | Reserved | | | | | |
| 1006 | 0x03EE | Display value | R | N | | -1999~9999 | |
| 1007 | 0x03EF | Reserved | | | | | |
| 1008 | 0x03F0 | Reserved | | | | | |
| 1009 | 0x03F1 | Alarm condition | R | N | BIT | 0~1 | BIT0 = Active<br>BIT1 = Alarm 1<br>BIT2 = Alarm 2<br>BIT3 = Alarm 3<br>BIT4 = Alarm 4<br>BIT5 = Alarm 5 |
| 1010<br>\|<br>\|<br>1119 | 0x03F2<br>\|<br>\|<br>0x045F | Reserved | | | | | |
| 1120 | 0x0460 | IMD | R/W | Y | | 0~4 | 0 = 0~20mA<br>1 = 4~20mA<br>2 = 0~5V<br>3 = 1~5V<br>4 = 0~10V |
| 1121 | 0x0461 | DOT | R/W | Y | | 0~4 | |
| 1122 | 0x0462 | Reserved | | | | | |
| 1123 | 0x0463 | DSH | R/W | Y | | -1999~9999 | |
| 1124 | 0x0464 | Reserved | | | | | |
| 1125 | 0x0465 | DSL | R/W | Y | | -1999~9999 | |
| 1126 | 0x0466 | Reserved | | | | | |
| 1127 | 0x0467 | LCUT | R/W | Y | | -1999~9999 | |
| 1128 | 0x0468 | AVG | R/W | Y | | 1~99 | |
| 1129 | 0x0469 | DIFT | R/W | Y | | 0~99 | |
| 1130 | 0x046A | Reserved | | | | | |
| 1131 | 0x046B | Reserved | | | | | |
| 1132 | 0x046C | SPAN | R/W | Y | | -1999~9999 | |
| 1133 | 0x046D | ZERO | R/W | Y | | -1999~9999 | |
| 1134 | 0x046E | Reserved | | | | | |
| 1135 | 0x046F | Reserved | | | | | |
| 1136 | 0x0470 | Reserved | | | | | |
| 1137 | 0x0471 | SSET | R/W | Y | | -1999~9999 | |
| 1138 | 0x0472 | SDY | R/W | Y | 1 秒 | 0~9999 | |
| 1139 | 0x0473 | RMD1 | R/W | Y | | 0~2 | 0 = NONE,1 = HI,2 = LO |
| 1140 | 0x0474 | CON1 | R/W | Y | | 0~1 | 0 = OFF,1 = OPEN |
| 1141 | 0x0475 | SET1 | R/W | Y | | -1999~9999 | |
| 1142 | 0x0476 | DB1 | R/W | Y | | 0~9999 | |
| 1143 | 0x0477 | ODY1 | R/W | Y | 1 秒 | 0~9999 | |
| 1144 | 0x0478 | FDY1 | R/W | Y | 1 秒 | 0~9999 | |
| 1145 | 0x0479 | RMD2 | R/W | Y | | 0~2 | 0 = NONE,1 = HI,2 = LO |
| 1146 | 0x047A | CON2 | R/W | Y | | 0~1 | 0 = OFF,1 = OPEN |
| 1147 | 0x047B | SET2 | R/W | Y | | -1999~9999 | |
| 1148 | 0x047C | DB2 | R/W | Y | | 0~9999 | |
| 1149 | 0x047D | ODY2 | R/W | Y | 1 秒 | 0~9999 | |
| 1150 | 0x047E | FDY2 | R/W | Y | 1 秒 | 0~9999 | |
| 1151 | 0x047F | RMD3 | R/W | Y | | 0~2 | 0 = NONE,1 = HI,2 = LO |

| 1152 | 0x0480 | CON3 | R/W | Y | | 0~1 | 0 = OFF,1 = OPEN |
|---|---|---|---|---|---|---|---|
| 1153 | 0x0481 | SET3 | R/W | Y | | -1999~9999 | |
| 1154 | 0x0482 | DB3 | R/W | Y | | 0~9999 | |
| 1155 | 0x0483 | ODY3 | R/W | Y | 1 秒 | 0~9999 | |
| 1156 | 0x0484 | FDY3 | R/W | Y | 1 秒 | 0~9999 | |
| 1157 | 0x0485 | RMD4 | R/W | Y | | 0~2 | 0 = NONE,1 = HI,2 = LO |
| 1158 | 0x0486 | CON4 | R/W | Y | | 0~1 | 0 = OFF,1 = OPEN |
| 1159 | 0x0487 | SET4 | R/W | Y | | -1999~9999 | |
| 1160 | 0x0488 | DB4 | R/W | Y | | 0~9999 | |
| 1161 | 0x0489 | ODY4 | R/W | Y | 1 秒 | 0~9999 | |
| 1162 | 0x048A | FDY4 | R/W | Y | 1 秒 | 0~9999 | |
| 1163 | 0x048B | RMD5 | R/W | Y | | 0~2 | 0 = NONE,1 = HI,2 = LO |
| 1164 | 0x048C | Reserved | | | | | |
| 1165 | 0x048D | SET5 | R/W | Y | | -1999~9999 | |
| 1166 | 0x048E | DB5 | R/W | Y | | 0~9999 | |
| 1167 | 0x048F | ODY5 | R/W | Y | 1 秒 | 0~9999 | |
| 1168 | 0x0490 | FDY5 | R/W | Y | 1 秒 | 0~9999 | |
| 1169 | 0x0491 | OMD1 | R/W | Y | | 0~4 | 0 = 0-20mA<br>1 = 4-20mA<br>2 = 0-5V<br>3 = 1-5V<br>4 = 0-10V |
| 1170 | 0x0492 | Reserved | | | | | |
| 1171 | 0x0493 | DAH1 | R/W | Y | | -1999~9999 | |
| 1172 | 0x0494 | Reserved | | | | | |
| 1173 | 0x0495 | DAL1 | R/W | Y | | -1999~9999 | |
| 1174 | 0x0496 | OSP1 | R/W | Y | | -1999~9999 | |
| 1175 | 0x0497 | OZR1 | R/W | Y | | -1999~9999 | |
| 1176 | 0x0498 | OMD2 | R/W | Y | | 0~4 | 0 = 0-20mA<br>1 = 4-20mA<br>2 = 0-5V<br>3 = 1-5V<br>4 = 0-10V |
| 1177 | 0x0499 | Reserved | | | | | |
| 1178 | 0x049A | DAH2 | R/W | Y | | -1999~9999 | |
| 1179 | 0x049B | Reserved | | | | | |
| 1180 | 0x049C | DAL2 | R/W | Y | | -1999~9999 | |
| 1181 | 0x049D | OSP2 | R/W | Y | | -1999~9999 | |
| 1182 | 0x049E | OZR2 | R/W | Y | | -1999~9999 | |
| 1183 | 0x049F | Addr | R/W | Y | | 1-255 | |
| 1184 | 0x04A0 | Baud | R/W | Y | | 0-5 | 0 = 1200<br>1 = 2400<br>2 = 4800<br>3 = 9600<br>4 = 19200<br>5 = 38400 |
| 1185 | 0x04A1 | Pari | R/W | Y | | 0-3 | 0 = n.8.1<br>1 = n.8.2<br>2 = o.8.1<br>3 = e.8.1 |

| 100 | 0x0064 | Reset Control Relay | W | 1 for reset relay mode |
|---|---|---|---|---|
| 101 | 0x0065 | Control Relay1 | W | 1 for On, 0 for Off |
| 102 | 0x0066 | Control Relay2 | W | 1 for On, 0 for Off |
| 103 | 0x0067 | Control Relay3 | W | 1 for On, 0 for Off |
| 104 | 0x0068 | Control Relay4 | W | 1 for On, 0 for Off |