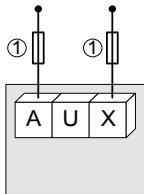


# DIRIS A Multifunction Meters

## Diris A20 Power Connection

110 / 240 VAC  
120 / 250 VDC



1. Fuses 0.5A gG / 0.5A class CC



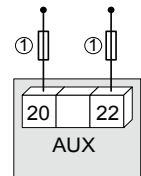
**4825U200**



**4825U011**

## Diris A10 Power Connection

110-277 VAC



1. Fuses 0.5A gG / 0.5A class CC

## WARNINGS

- The device must be installed and serviced only by qualified personnel.
- Prior to any work on or in the device, isolate the voltage inputs and auxiliary power supplies and short circuit the secondary winding of all current transformers (CTs).
- Always use an appropriate voltage detection device to confirm the absence of voltage.
- Put all mechanisms, door and covers back in place before energizing the device.
- Always supply the device with the correct rated voltage.
- Failure to take these precautions could cause serious injuries.

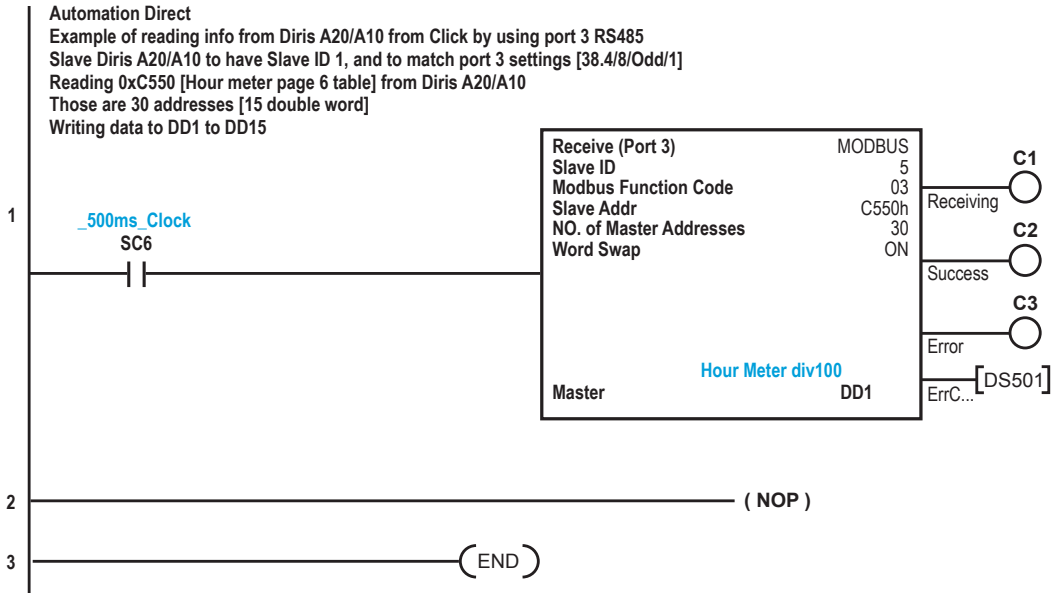
## RISK OF DAMAGING DEVICE

Check the following:

- The voltage of the auxiliary power.
- The frequency of the distribution system (50 or 60 Hz).
- The maximum voltage across the voltage-input terminals, (V1, V2, V3 and VN) 520VAC phase-to-phase or 300VAC phase-to-neutral.
- A maximum current of 6A on the current-input terminals (I1, I2 and I3).

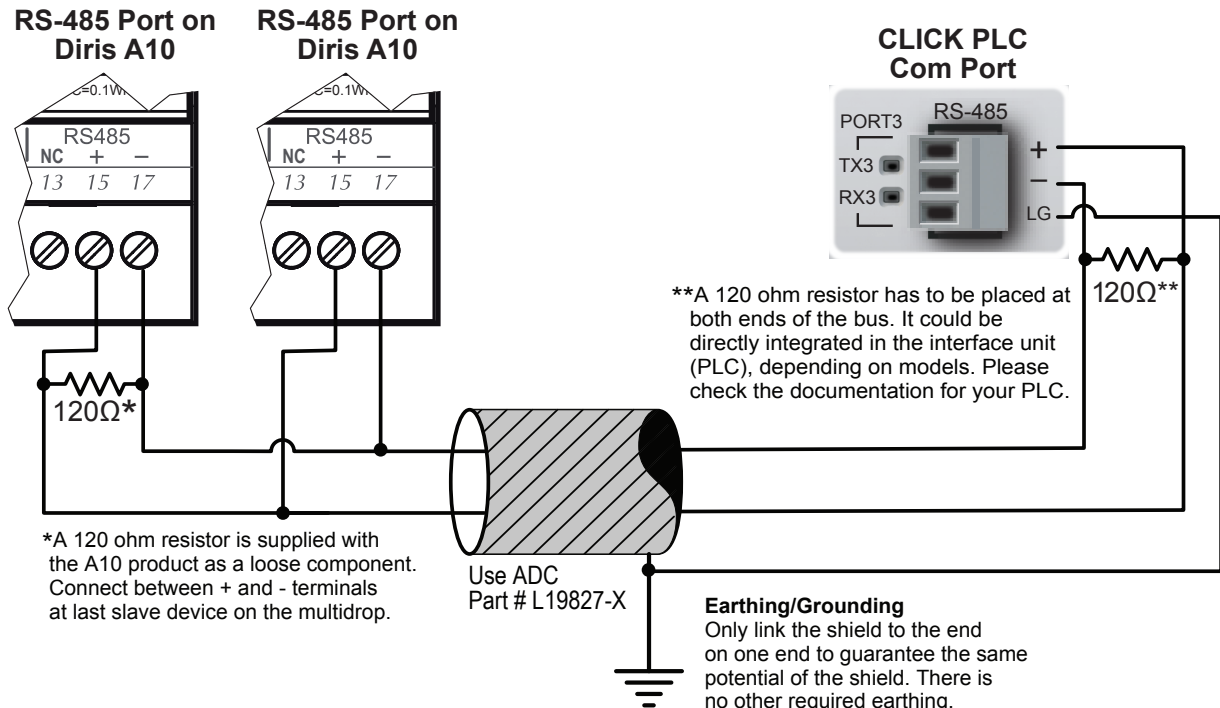
# Using DIRIS A10 Multifunction Meters with CLICK PLCs

## Programming Example



Note: If incoming Data does not appear in the desired format, please see PLC manual for Swap bytes or Swap Word instructions.

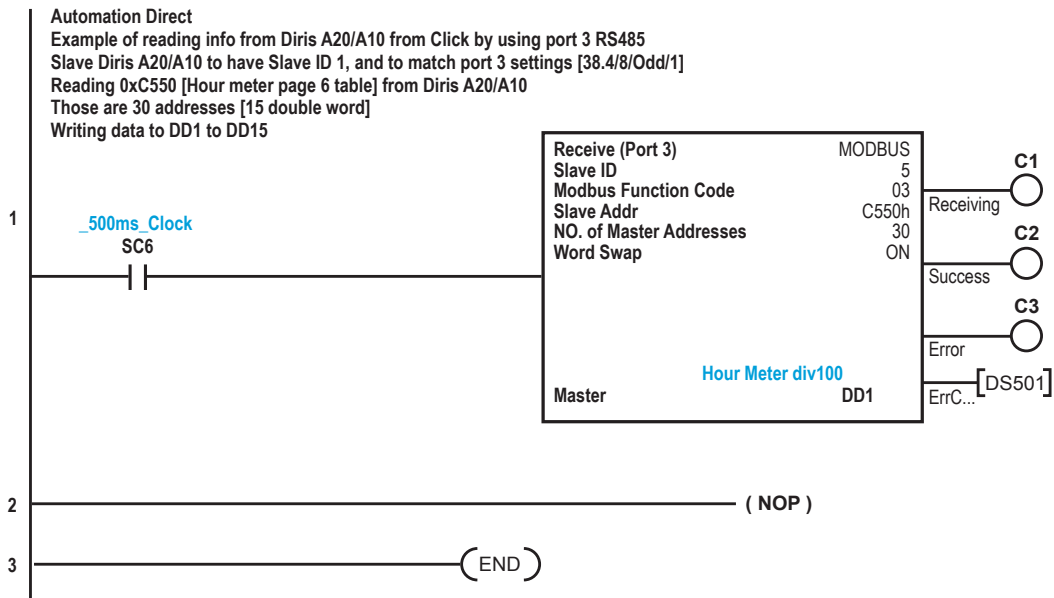
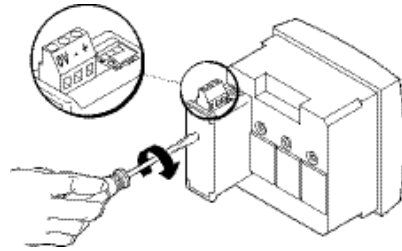
## Wiring Diagram



# Using DIRIS A20 Multifunction Meters with CLICK PLCs

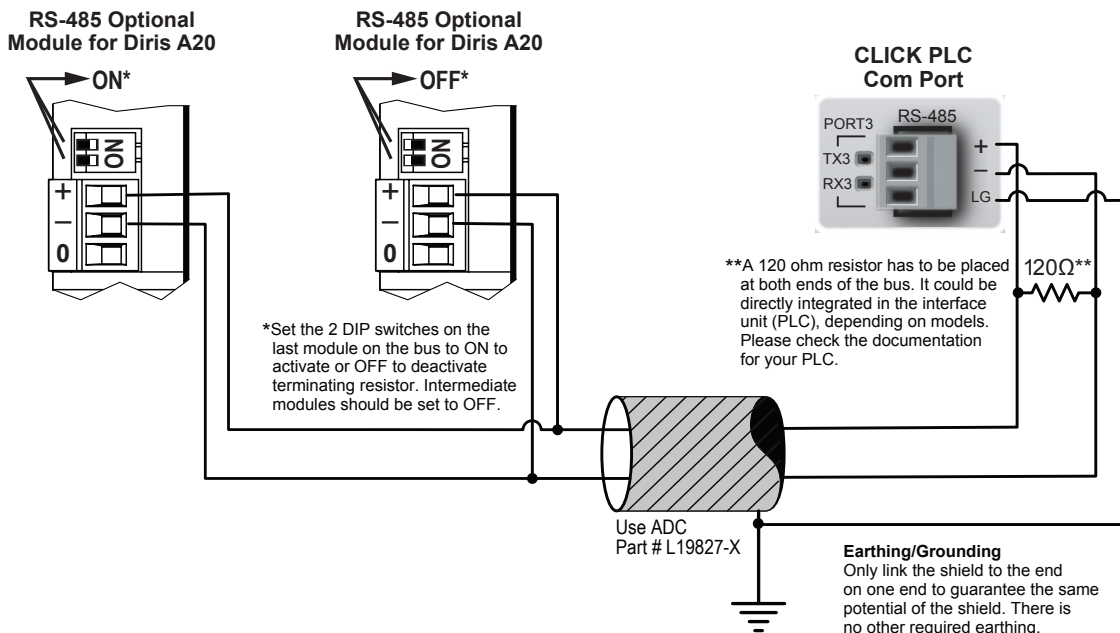
## Installing the optional RS-485 communication module

## Programming Example



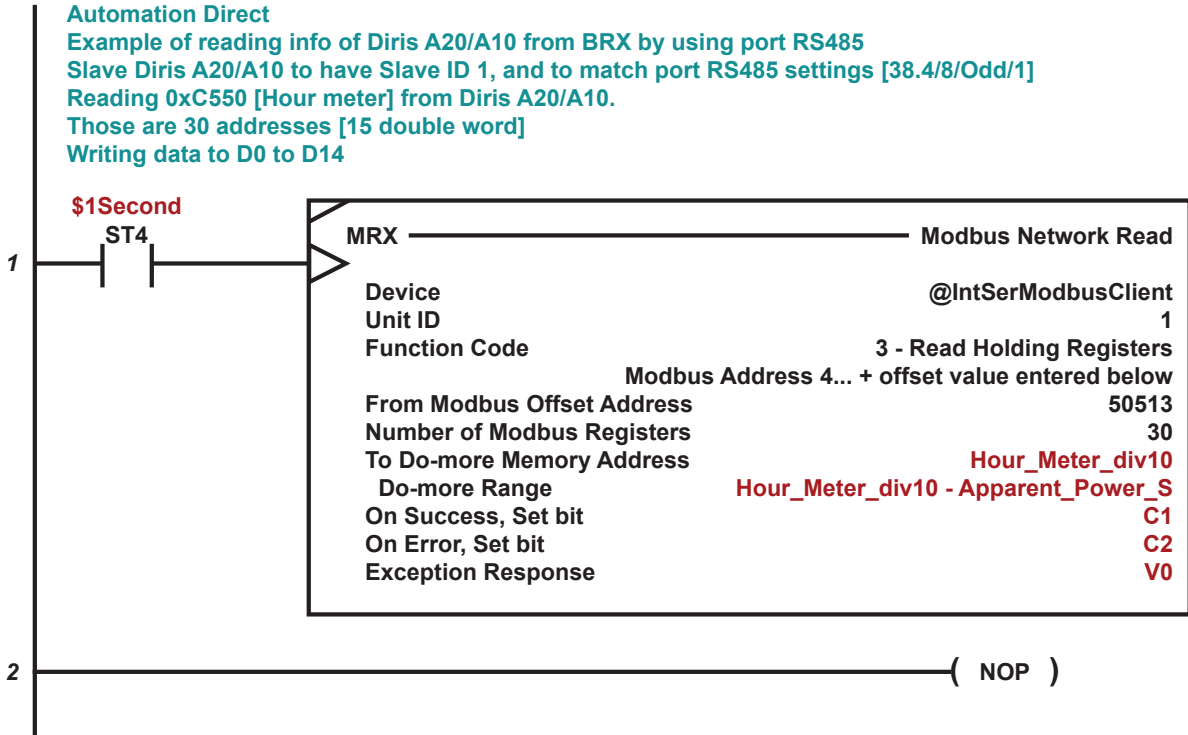
Note: If incoming Data does not appear in the desired format, please see PLC manual for Swap bytes or Swap Word instructions.

## Wiring Diagram



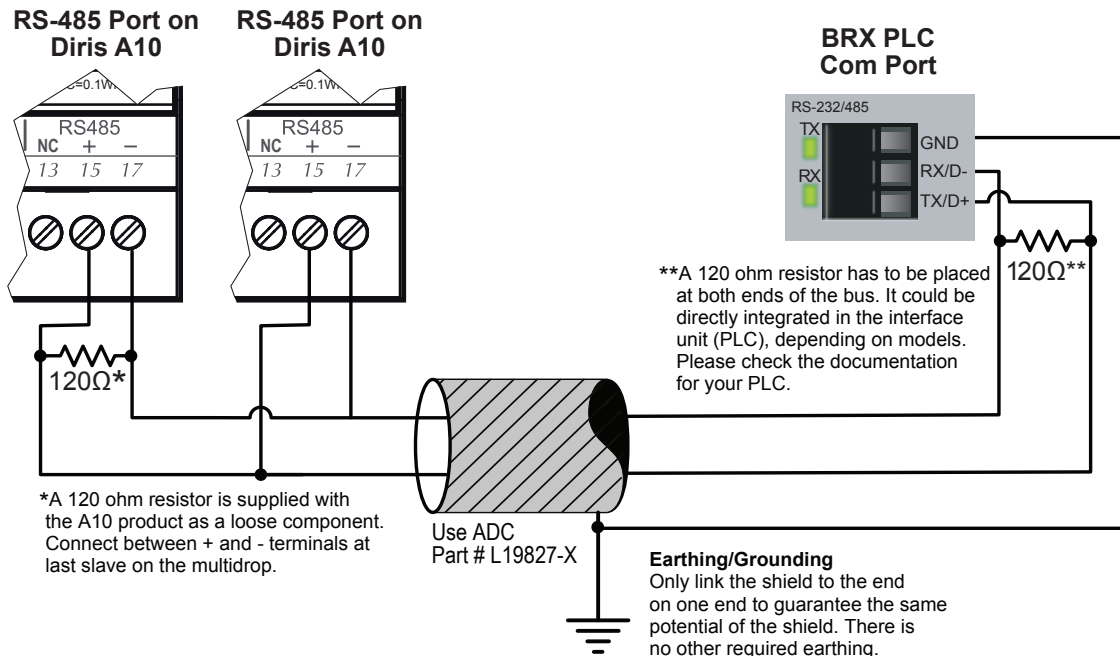
# Using DIRIS A10 Multifunction Meters with BRX PLCs

## Programming Example



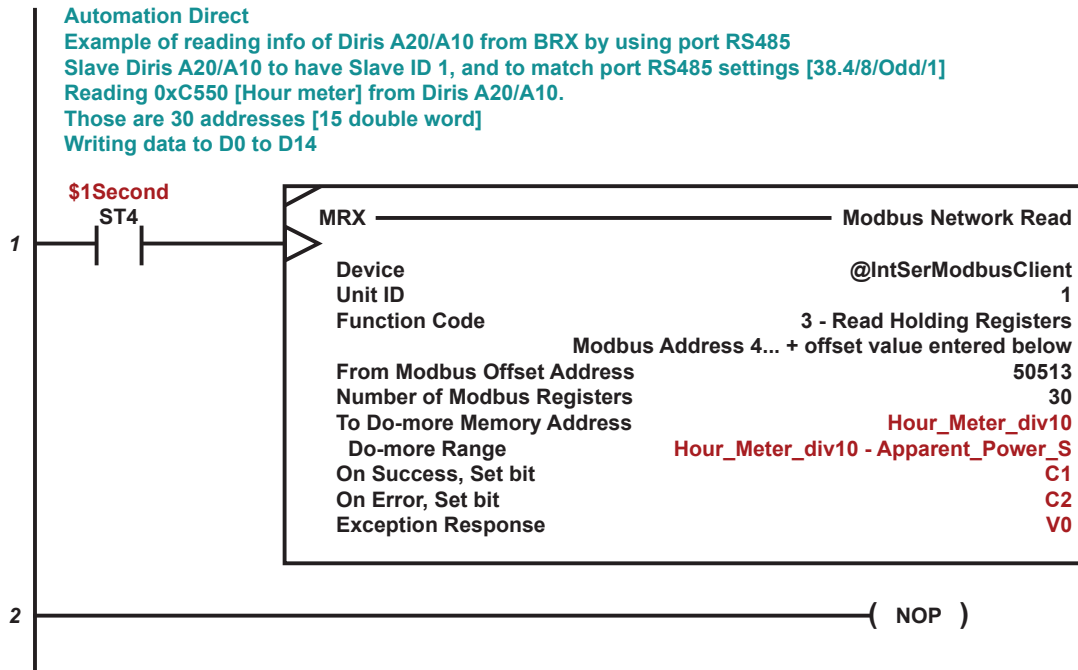
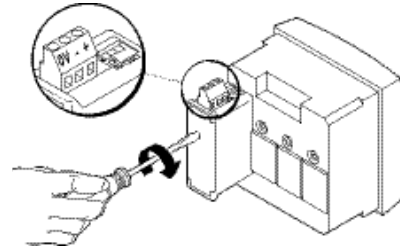
Note: If incoming Data does not appear in the desired format, please see PLC manual for Swap bytes or Swap Word instructions.

## Wiring Diagram



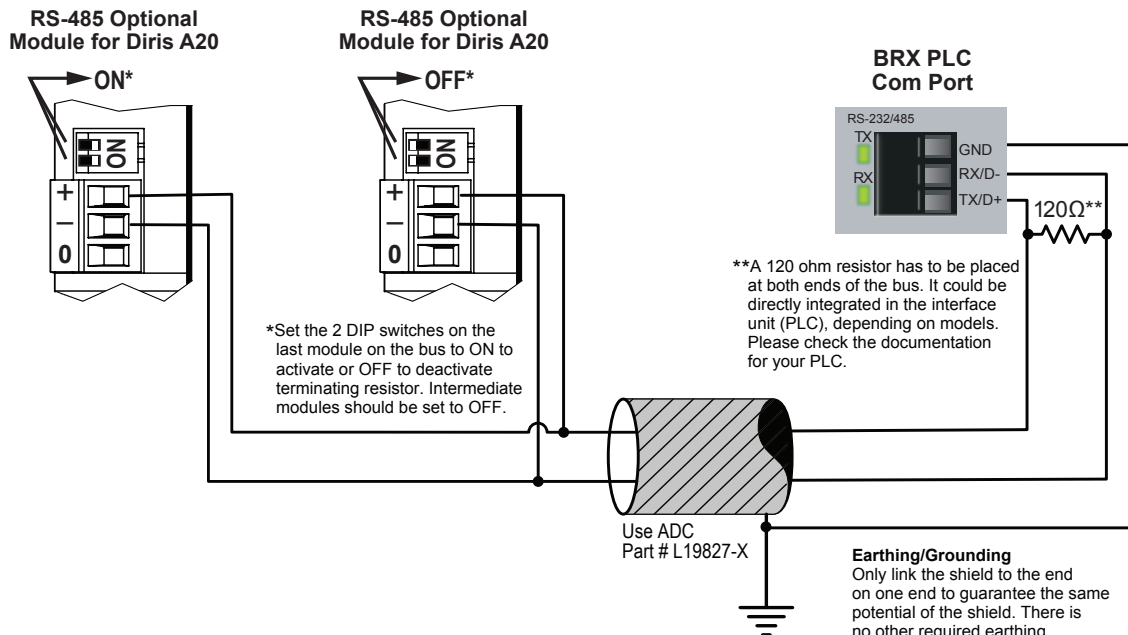
# Using DIRIS A20 Multifunction Meters with BRX PLCs

## Installing the optional RS-485 communication module Programming Example



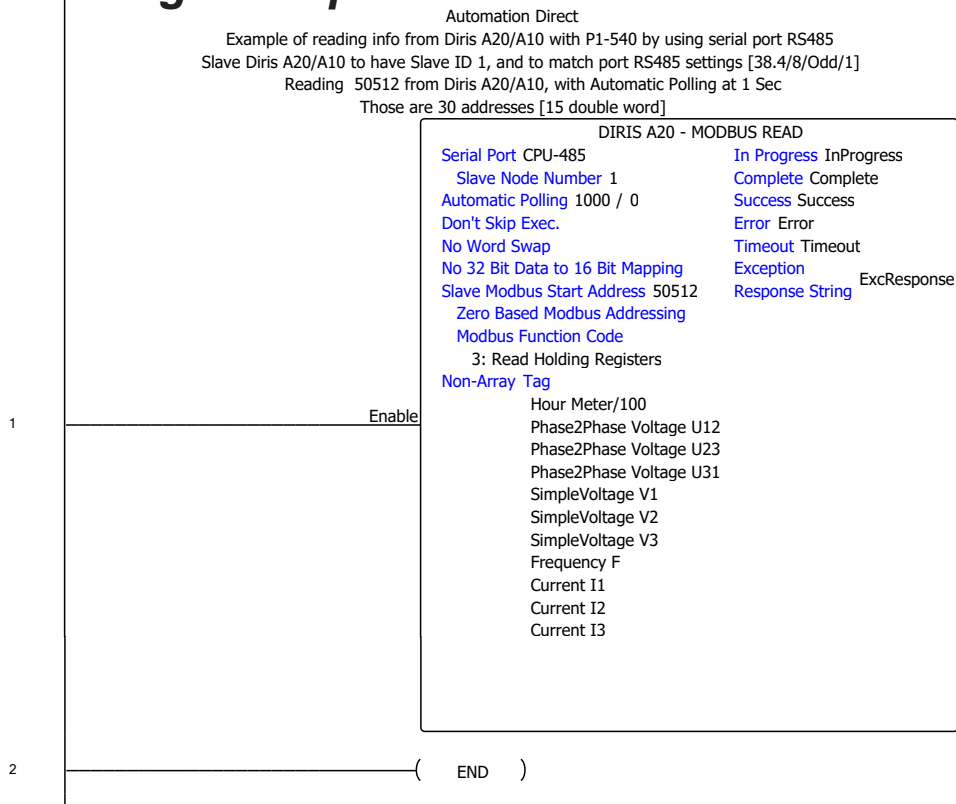
Note: If incoming Data does not appear in the desired format, please see PLC manual for Swap bytes or Swap Word instructions.

## Wiring Diagram



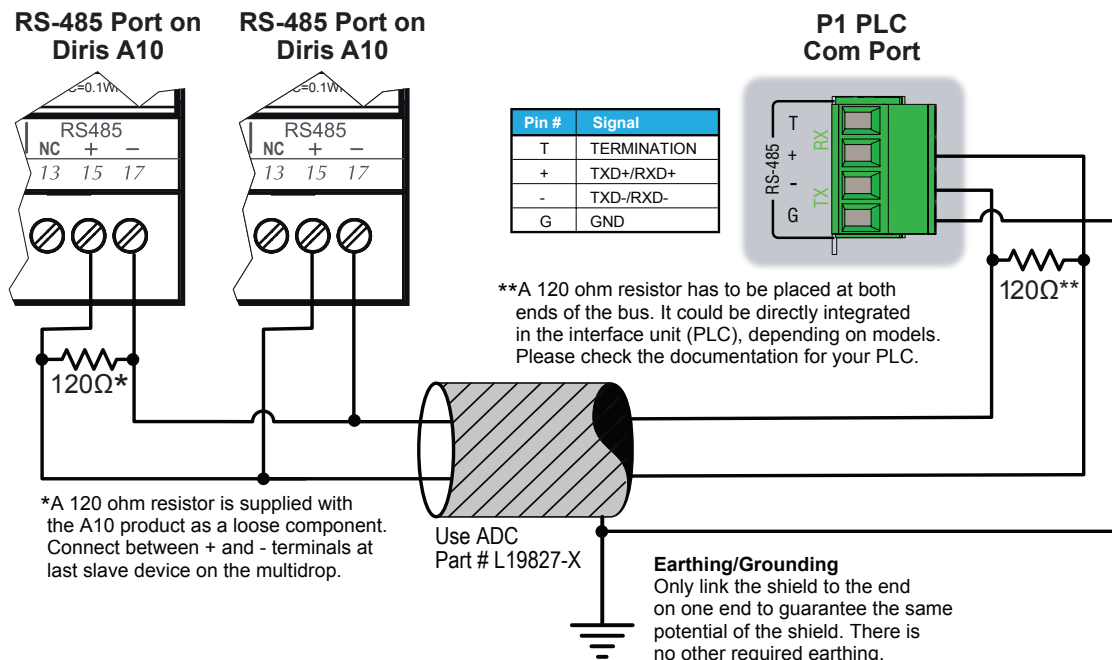
# Using DIRIS A10 Multifunction Meters with P1, P2 or P3 PLCs

## Programming Example



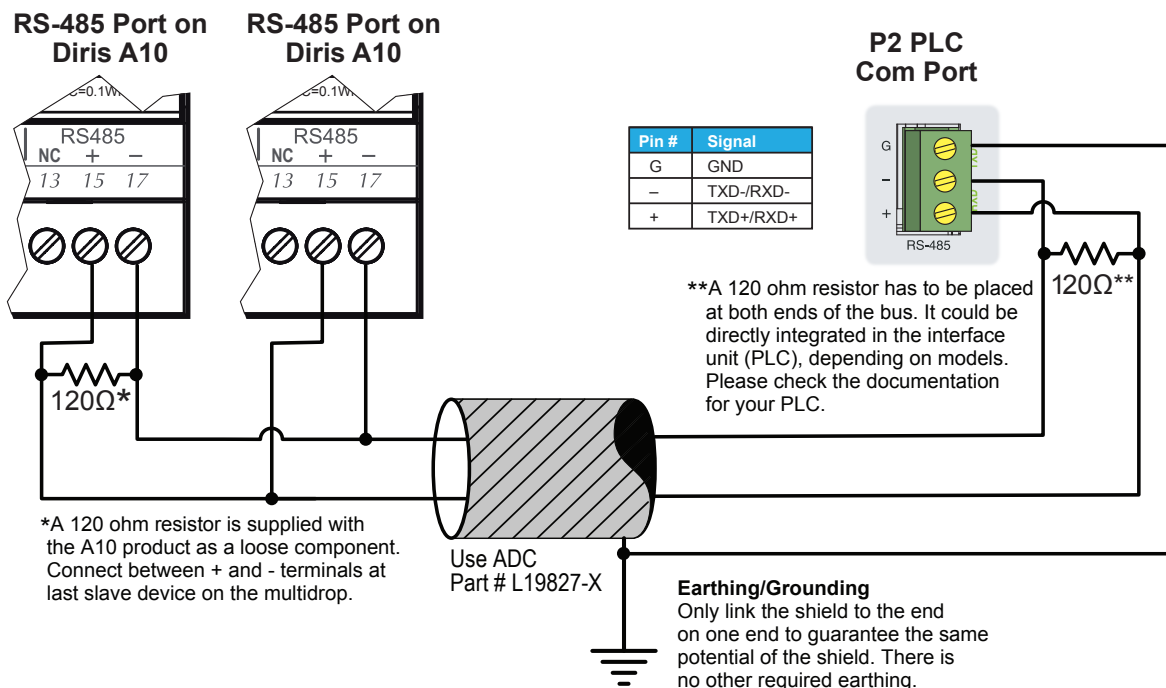
*Note: If incoming Data does not appear in the desired format, please see PLC manual for Swap bytes or Swap Word instructions.*

## Wiring Diagram – Diris A10 and P1 PLC

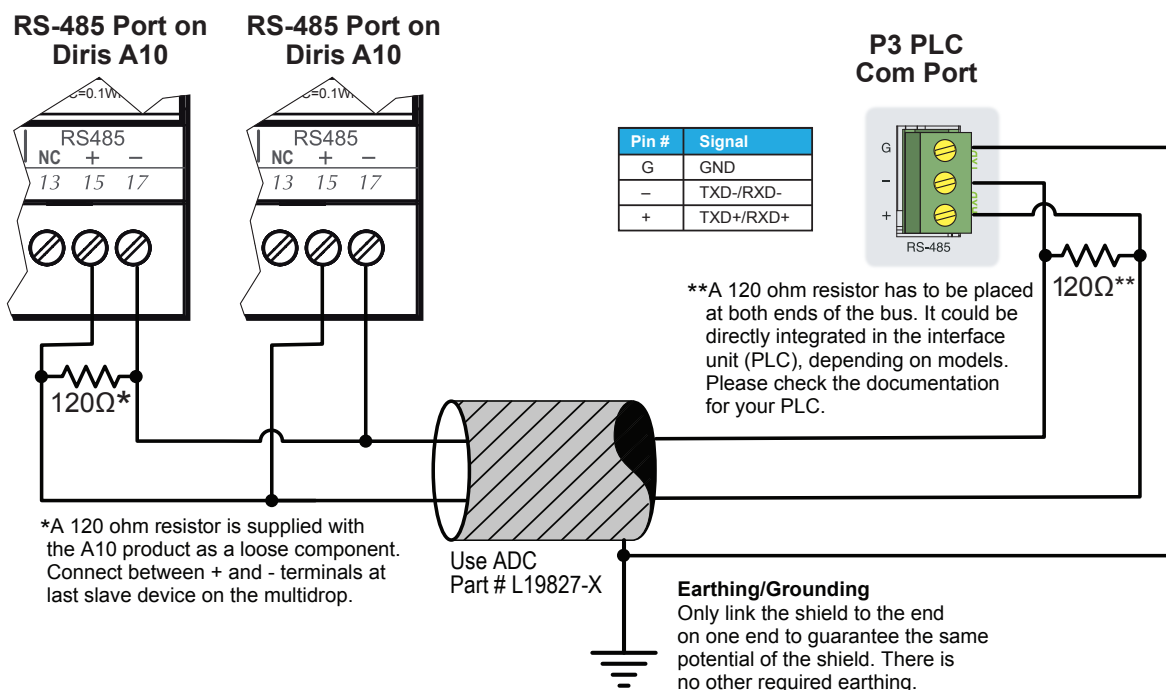


# Using DIRIS A10 Multifunction Meters with P1, P2 or P3 PLCs

## Wiring Diagram – Diris A10 and P2 PLC

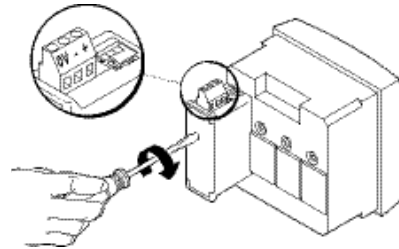


## Wiring Diagram – Diris A10 and P3 PLC



# Using DIRIS A20 Multifunction Meters with P1, P2 or P3 PLCs

## Installing the optional RS-485 communication module Programming Example



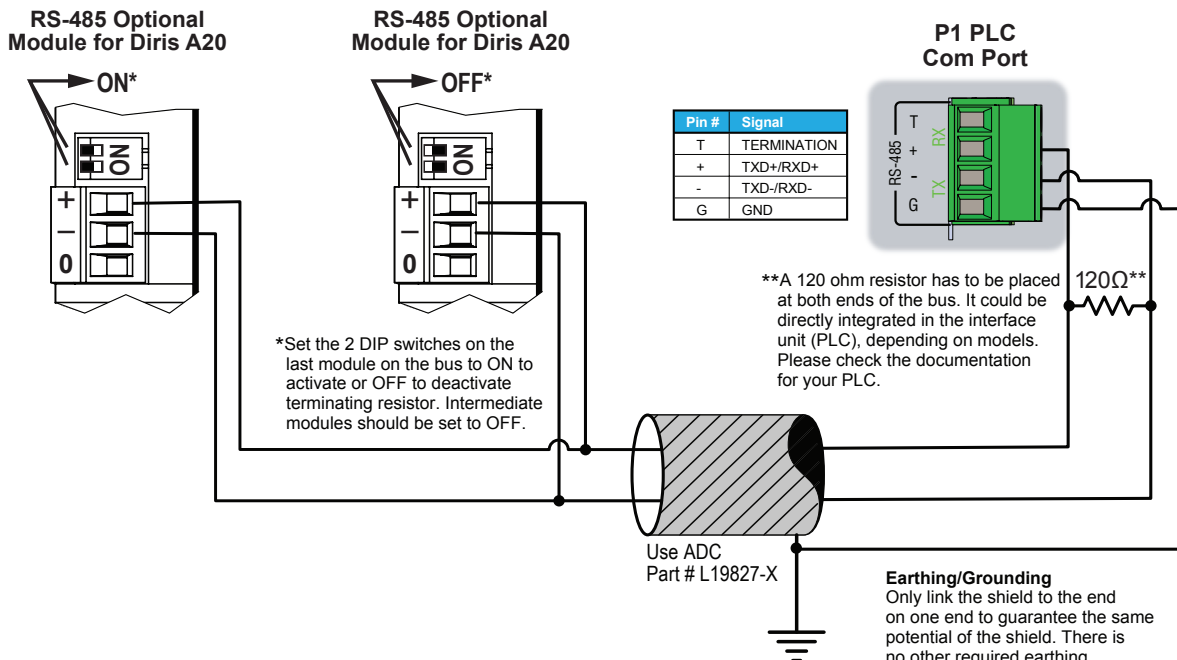
```

Automation Direct
Example of reading info from Diris A20/A10 with P1-540 by using serial port RS485
Slave Diris A20/A10 to have Slave ID 1, and to match port RS485 settings [38.4/8/Odd/1]
Reading 50512 from Diris A20/A10, with Automatic Polling at 1 Sec
Those are 30 addresses [15 double word]

DIRIS A20 - MODBUS READ
Serial Port CPU-485           In Progress InProgress
Slave Node Number 1         Complete Complete
Automatic Polling 1000 / 0   Success Success
Don't Skip Exec.            Error Error
No Word Swap                Timeout Timeout
No 32 Bit Data to 16 Bit Mapping Exception ExcrResponse
Slave Modbus Start Address 50512 Response String
Zero Based Modbus Addressing
Modbus Function Code
3: Read Holding Registers
Non-Array Tag
Hour Meter/100
Phase2Phase Voltage U12
Phase2Phase Voltage U23
Phase2Phase Voltage U31
SimpleVoltage V1
SimpleVoltage V2
SimpleVoltage V3
Frequency F
Current I1
Current I2
Current I3
    
```

Note: If incoming Data does not appear in the desired format, please see PLC manual for Swap bytes or Swap Word instructions.

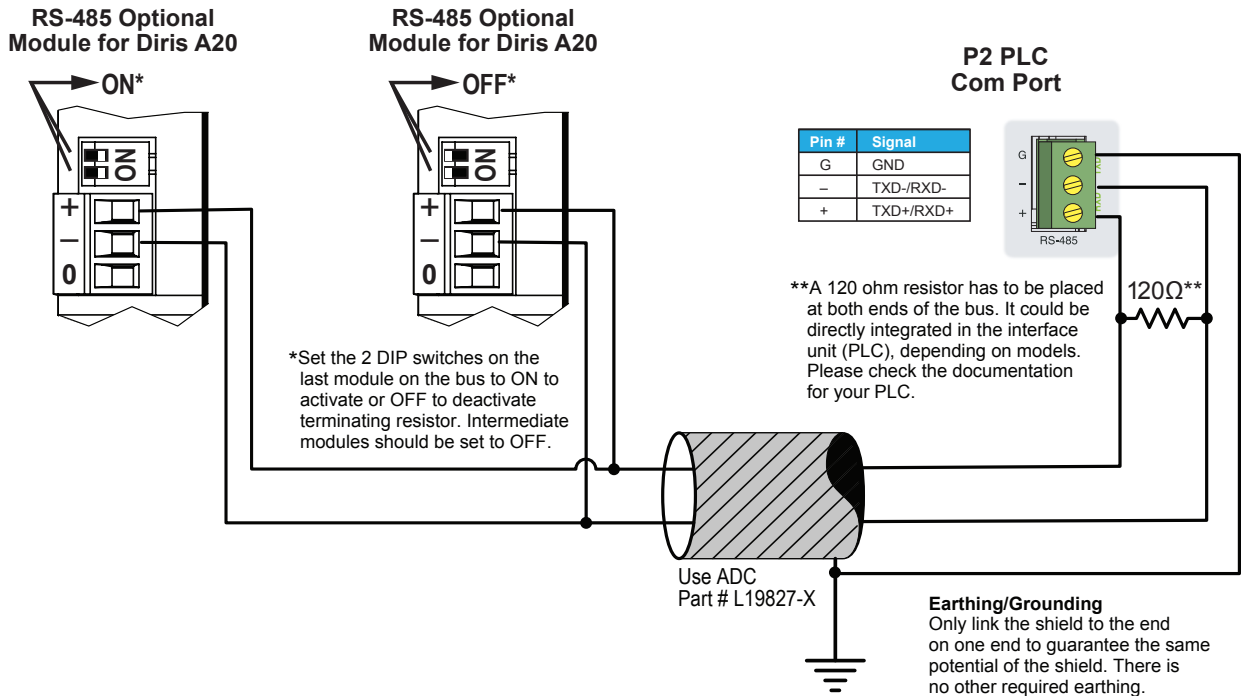
## Wiring Diagram – Diris A20 and P1 PLC



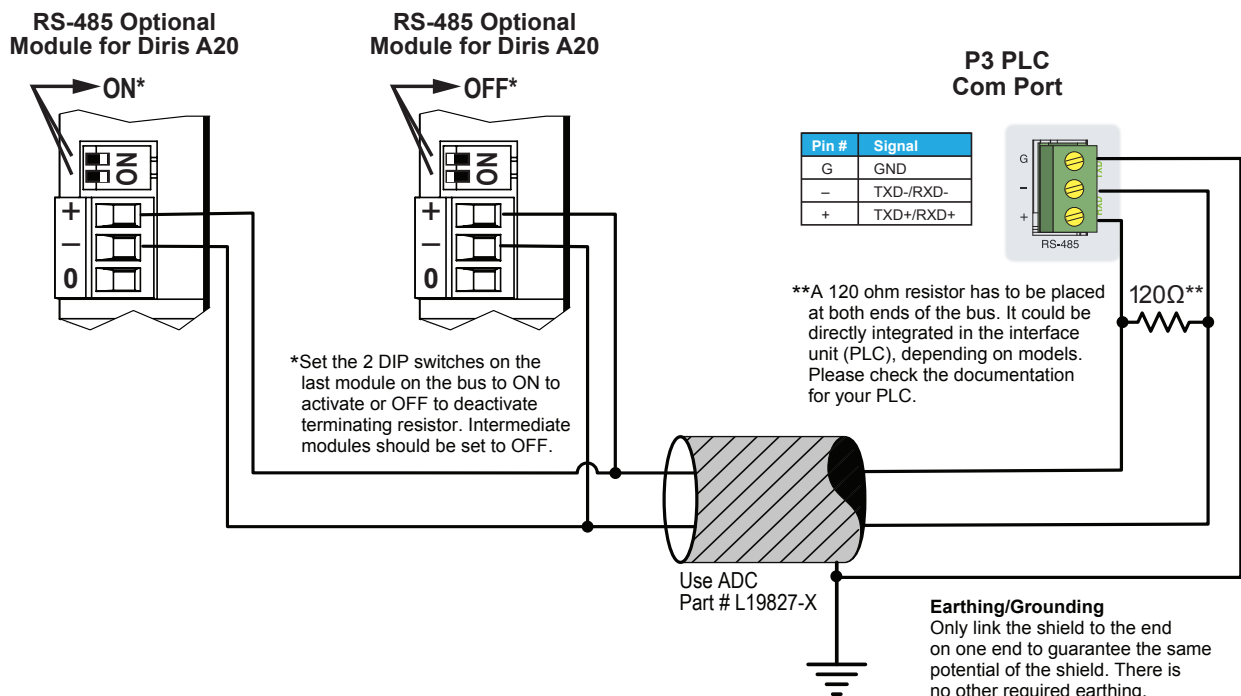


# Using DIRIS A20 Multifunction Meters with P1, P2 or P3 PLCs

## Wiring Diagram – Diris A20 and P2 PLC



## Wiring Diagram – Diris A20 and P3 PLC



# Using DIRIS A10 Multifunction Meters with DL06 PLCs

## Programming Example

Automation Direct: Example of reading info from Diris A20/A10 to DL06 by using port RS48

Slave Diris A20/A10 to have Slave ID 1, and to match port 3 settings [38.4/8/Odd/1]

Reading 50512 [Hour meter] from Diris A20/A10. Those are 30 addresses [15 double word]

V2000-V2001:Hour Meter

V2002-V2003:Phase to Phase Voltage: U12

V2004-V2005:Phase to Phase Voltage: U23

V2006-V2007:Phase to Phase Voltage: U31

V2010-V2011:Simple Voltage: V1

V2012-V2013:Simple Voltage: V2

V2014-V2015:Simple Voltage: V3

V2016-V2017:Frequency

V2020-V2021:Current : I1

V2022-V2023:Current : I2

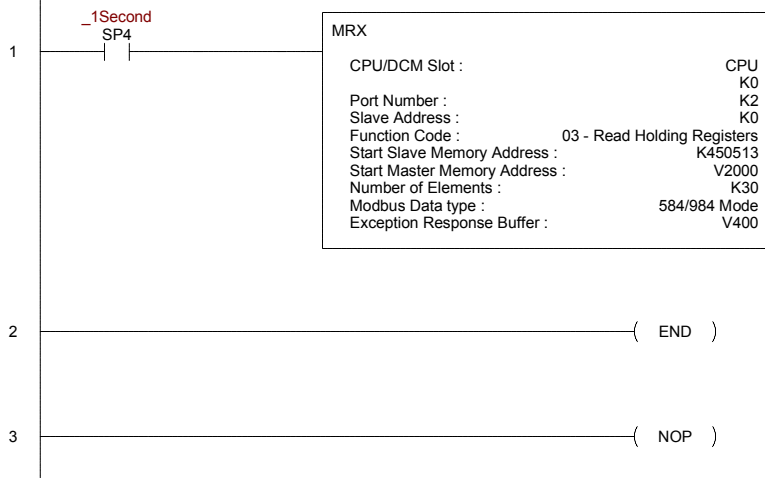
V2024-V2025:Current : I3

V2026-V2027:Neutral Current : In

V2030-V2031:Active Power +/P

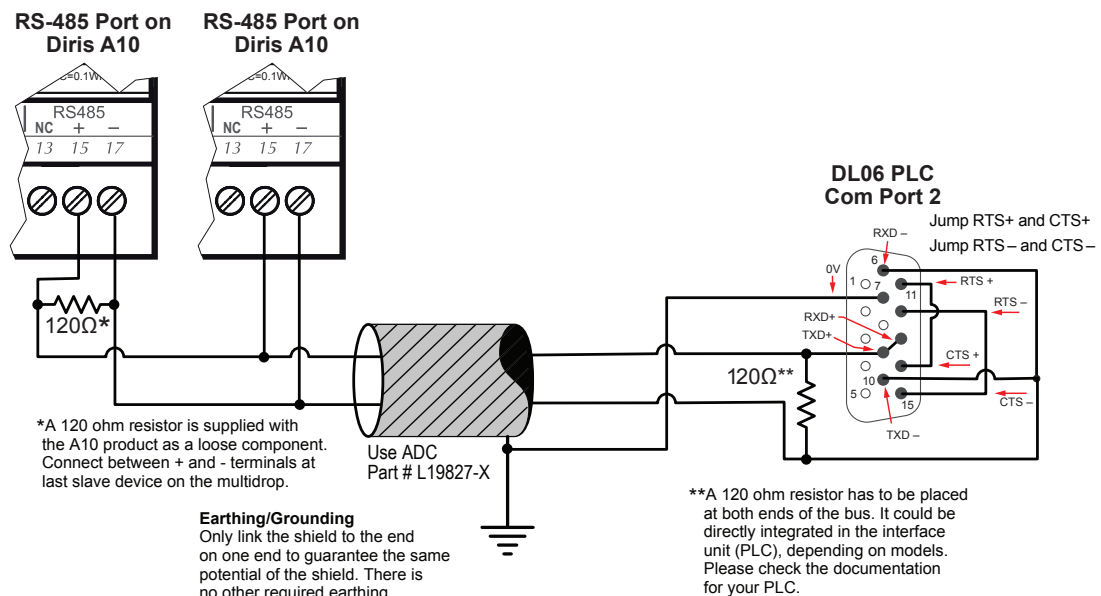
V2032-V2033:Reactive Power +/Q

V2034-V2035:Apparent Power : S



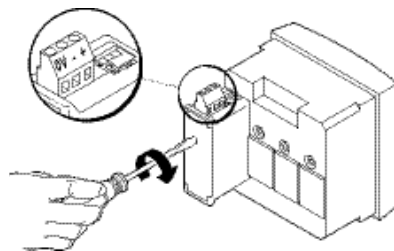
Note: If incoming Data does not appear in the desired format, please see PLC manual for Swap bytes or Swap Word instructions.

## Wiring Diagram



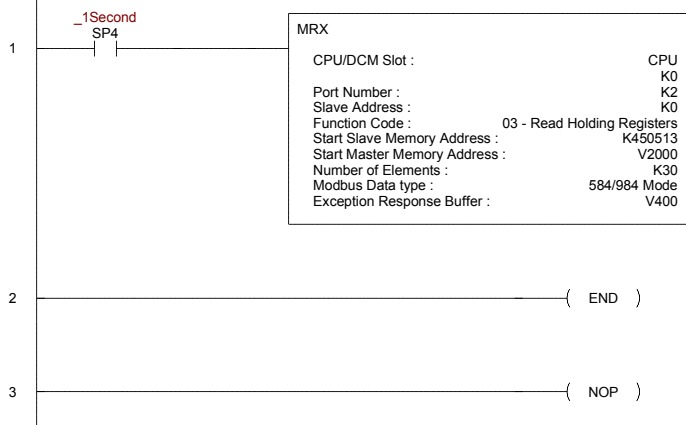
# Using DIRIS A20 Multifunction Meters with DL06 PLCs

## Installing the optional RS-485 communication module



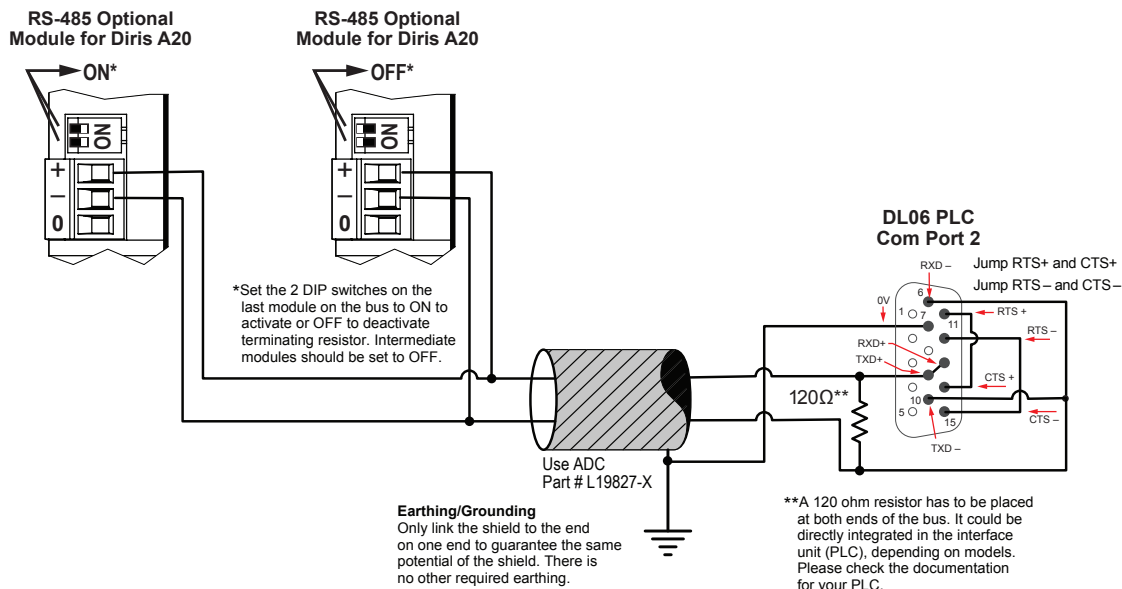
## Programming Example

Automation Direct: Example of reading info from Diris A20/A10 to DL06 by using port R548  
 Slave Diris A20/A10 to have Slave ID 1, and to match port 3 settings [38.4/8/Odd/1]  
 Reading 50512 [Hour meter] from Diris A20/A10. Those are 30 addresses [15 double word]  
 V2000-V2001:Hour Meter  
 V2002-V2003:Phase to Phase Voltage: U12  
 V2004-V2005:Phase to Phase Voltage: U23  
 V2006-V2007:Phase to Phase Voltage: U31  
 V2010-V2011:Simple Voltage: V1  
 V2012-V2013:Simple Voltage: V2  
 V2014-V2015:Simple Voltage: V3  
 V2016-V2017:Frequency  
 V2020-V2021:Current : I1  
 V2022-V2023:Current : I2  
 V2024-V2025:Current : I3  
 V2026-V2027:Neutral Current : In  
 V2030-V2031:Active Power +/-P  
 V2032-V2033:Reactive Power +/-Q  
 V2034-V2035:Apparent Power : S



**Note:** If incoming Data does not appear in the desired format, please see PLC manual for Swap bytes or Swap Word instructions.

## Wiring Diagram



# DIRIS A10 Modbus Common Table version 1.01

## C350 Hex: Measurement data affected by current and voltage transformers

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description  | Unit              | Modbus function # | Value if not available |
|-----------------------------|-------------|-------------|----------------------|--|-------------------|-------------------|------------------------|
| 450513                      | 50512       | C550        | 2                    | Hour Meter   | 1/100 h           | 3                 | 0xFFFFFFFF             |
| 450515                      | 50514       | C552        | 2                    | Phase to Phase Voltage: U12                            | V/100             | 3                 | 0xFFFFFFFF             |
| 450517                      | 50516       | C554        | 2                    | Phase to Phase Voltage: U23                            | V/100             | 3                 | 0xFFFFFFFF             |
| 450519                      | 50518       | C556        | 2                    | Phase to Phase Voltage: U31                            | V/100             | 3                 | 0xFFFFFFFF             |
| 450521                      | 50520       | C558        | 2                    | Simple voltage : V1                                    | V/100             | 3                 | 0xFFFFFFFF             |
| 450523                      | 50522       | C55A        | 2                    | Simple voltage : V2                                    | V/100             | 3                 | 0xFFFFFFFF             |
| 450525                      | 50524       | C55C        | 2                    | Simple voltage : V3                                    | V/100             | 3                 | 0xFFFFFFFF             |
| 450527                      | 50526       | C55E        | 2                    | Frequency : F  | Hz/100            | 3                 | 0xFFFFFFFF             |
| 450529                      | 50528       | C560        | 2                    | Current : I1   | mA                | 3                 | 0xFFFFFFFF             |
| 450531                      | 50530       | C562        | 2                    | Current : I2   | mA                | 3                 | 0xFFFFFFFF             |
| 450533                      | 50532       | C564        | 2                    | Current : I3   | mA                | 3                 | 0xFFFFFFFF             |
| 450535                      | 50534       | C566        | 2                    | Neutral Current : In                                   | mA                | 3                 | 0xFFFFFFFF             |
| 450537                      | 50536       | C568        | 2                    | $\Sigma$ Active Power +/- : P                          | kW/100 (Signed)   | 3                 | 0x7FFFFFFF             |
| 450539                      | 50538       | C56A        | 2                    | $\Sigma$ Reactive Power +/- : Q                        | kvar/100 (Signed) | 3                 | 0x7FFFFFFF             |
| 450541                      | 50540       | C56C        | 2                    | $\Sigma$ Apparent Power : S                            | kVA/100           | 3                 | 0xFFFFFFFF             |
| 450543                      | 50542       | C56E        | 2                    | $\Sigma$ Power Factor : - : leading + : lagging : PF   | 0.001 (Signed)    | 3                 | 0x7FFFFFFF             |
| 450545                      | 50544       | C570        | 2                    | Active Power phase 1 +/- : P1                          | kW/100 (Signed)   | 3                 | 0x7FFFFFFF             |
| 450547                      | 50546       | C572        | 2                    | Active Power phase 2 +/- : P2                          | kW/100 (Signed)   | 3                 | 0x7FFFFFFF             |
| 450549                      | 50548       | C574        | 2                    | Active Power phase 3 +/- : P3                          | kW/100 (Signed)   | 3                 | 0x7FFFFFFF             |
| 450551                      | 50550       | C576        | 2                    | Reactive Power phase 1 +/- : Q1                        | kvar/100 (Signed) | 3                 | 0x7FFFFFFF             |
| 450553                      | 50552       | C578        | 2                    | Reactive Power phase 2 +/- : Q2                        | kvar/100 (Signed) | 3                 | 0x7FFFFFFF             |
| 450555                      | 50554       | C57A        | 2                    | Reactive Power phase 3 +/- : Q3                        | kvar/100 (Signed) | 3                 | 0x7FFFFFFF             |
| 450557                      | 50556       | C57C        | 2                    | Apparent Power phase 1 : S1                            | kVA/100           | 3                 | 0xFFFFFFFF             |
| 450559                      | 50558       | C57E        | 2                    | Apparent Power phase 2 : S2                            | kVA/100           | 3                 | 0xFFFFFFFF             |
| 450561                      | 50560       | C580        | 2                    | Apparent Power phase 3 : S3                            | kVA/100           | 3                 | 0xFFFFFFFF             |
| 450563                      | 50562       | C582        | 2                    | Power Factor phase 1 - : leading and + : lagging : PF1 | 0.001 (Signed)    | 3                 | 0x7FFFFFFF             |
| 450565                      | 50564       | C584        | 2                    | Power Factor phase 2 - : leading and + : lagging : PF2 | 0.001 (Signed)    | 3                 | 0x7FFFFFFF             |
| 450567                      | 50566       | C586        | 2                    | Power Factor phase 3 - : leading and + : lagging : PF3 | 0.001 (Signed)    | 3                 | 0x7FFFFFFF             |

## C650 Hex: Energy Measurement Data

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description                            | Unit    | Modbus function # | Value if not available |
|-----------------------------|-------------|-------------|----------------------|--|---------|-------------------|------------------------|
| 450769                      | 50768       | C650        | 2                    | Hour meter                             | 1/100 h | 3                 | 0xFFFFFFFF             |
| 450781                      | 50780       | C65C        | 2                    | Partial Positive Active Energy: Ea+    | kWh     | 3                 | 0xFFFFFFFF             |
| 450783                      | 50782       | C65E        | 2                    | Partial Positive Reactive Energy: Er + | kvarh   | 3                 | 0xFFFFFFFF             |
| 450769                      | 50768       | C650        | 65                   | Data block                             |         |                   |                        |

### C750 Hex: Average Measurement Data Affected by Current and Voltage Transformers

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description | Unit     | Modbus function # | Value if not available |
|-----------------------------|-------------|-------------|----------------------|-------------|----------|-------------------|------------------------|
| 451071                      | 51070       | C77E        | 2                    | Max/avg I1  | mA       | 3                 | 0xFFFFFFFF             |
| 451073                      | 51072       | C780        | 2                    | Max/avg I2  | mA       | 3                 | 0xFFFFFFFF             |
| 451075                      | 51074       | C782        | 2                    | Max/avg I3  | mA       | 3                 | 0xFFFFFFFF             |
| 451077                      | 51076       | C784        | 2                    | Max/avg In  | mA       | 3                 | 0xFFFFFFFF             |
| 451079                      | 51078       | C786        | 2                    | Max/avg P+  | kW/100   | 3                 | 0xFFFFFFFF             |
| 451081                      | 51080       | C788        | 2                    | Max/avg P-  | kW/100   | 3                 | 0xFFFFFFFF             |
| 451083                      | 51082       | C78A        | 2                    | Max/avg Q+  | kvar/100 | 3                 | 0xFFFFFFFF             |
| 451085                      | 51084       | C78C        | 2                    | Max/avg Q-  | kvar/100 | 3                 | 0xFFFFFFFF             |
| 451087                      | 51086       | C78E        | 2                    | Max/avg S   | kVA/100  | 3                 | 0xFFFFFFFF             |
| 451025                      | 51024       | C750        | 70                   | Data block  |          |                   |                        |

### C850 Hex: Measurement Data Not Affected by Current and Voltage Transformers

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description   | Unit              | Modbus function # | Value if not available |
|-----------------------------|-------------|-------------|----------------------|---|-------------------|-------------------|------------------------|
| 451281                      | 51280       | C850        | 1                    | Hour Meter  | h                 | 3                 | 0xFFFF                 |
| 451282                      | 51281       | C851        | 1                    | Phase to Phase Voltage: U12                             | V/100             | 3                 | 0xFFFF                 |
| 451283                      | 51282       | C852        | 1                    | Phase to Phase Voltage: U23                             | V/100             | 3                 | 0xFFFF                 |
| 451284                      | 51283       | C853        | 1                    | Phase to Phase Voltage: U31                             | V/100             | 3                 | 0xFFFF                 |
| 451285                      | 51284       | C854        | 1                    | Simple voltage : V1                                     | V/100             | 3                 | 0xFFFF                 |
| 451286                      | 51285       | C855        | 1                    | Simple voltage : V2                                     | V/100             | 3                 | 0xFFFF                 |
| 451287                      | 51286       | C856        | 1                    | Simple voltage : V3                                     | V/100             | 3                 | 0xFFFF                 |
| 451288                      | 51287       | C857        | 1                    | Frequency : F   | Hz/100            | 3                 | 0xFFFF                 |
| 451289                      | 51288       | C858        | 1                    | Current : I1  | mA                | 3                 | 0xFFFF                 |
| 451290                      | 51289       | C859        | 1                    | Current : I2  | mA                | 3                 | 0xFFFF                 |
| 451291                      | 51290       | C85A        | 1                    | Current : I3  | mA                | 3                 | 0xFFFF                 |
| 451292                      | 51291       | C85B        | 1                    | Neutral Current : In                                    | mA                | 3                 | 0xFFFF                 |
| 451293                      | 51292       | C85C        | 1                    | $\Sigma$ active Power +/- : P                           | kW/100 (Signed)   | 3                 | 0x7FFF                 |
| 451294                      | 51293       | C85D        | 1                    | $\Sigma$ aeactive Power +/- : Q                         | kvar/100 (Signed) | 3                 | 0x7FFF                 |
| 451295                      | 51294       | C85E        | 1                    | $\Sigma$ apparent power : S                             | kVA/100           | 3                 | 0xFFFF                 |
| 451296                      | 51295       | C85F        | 1                    | $\Sigma$ power factor : -: leading and + : lagging : PF | 0.001 (Signed)    | 3                 | 0x7FFF                 |
| 451297                      | 51296       | C860        | 1                    | Active Power phase 1 +/- : P1                           | kW/100 (Signed)   | 3                 | 0x7FFF                 |
| 451298                      | 51297       | C861        | 1                    | Active Power phase 2 +/- : P2                           | kW/100 (Signed)   | 3                 | 0x7FFF                 |
| 451299                      | 51298       | C862        | 1                    | Active Power phase 3 +/- : P3                           | kW/100 (Signed)   | 3                 | 0x7FFF                 |
| 451300                      | 51299       | C863        | 1                    | Reactive Power phase 1 +/- : Q1                         | kvar/100 (Signed) | 3                 | 0x7FFF                 |
| 451301                      | 51300       | C864        | 1                    | Reactive Power phase 2 +/- : Q2                         | kvar/100 (Signed) | 3                 | 0x7FFF                 |
| 451302                      | 51301       | C865        | 1                    | Reactive Power phase 3 +/- : Q3                         | kvar/100 (Signed) | 3                 | 0x7FFF                 |
| 451303                      | 51302       | C866        | 1                    | Apparent power phase 1 : S1                             | kVA/100           | 3                 | 0xFFFF                 |
| 451304                      | 51303       | C867        | 1                    | Apparent power phase 2 : S2                             | kVA/100           | 3                 | 0xFFFF                 |
| 451305                      | 51304       | C868        | 1                    | Apparent power phase 3 : S3                             | kVA/100           | 3                 | 0xFFFF                 |
| 451306                      | 51305       | C869        | 1                    | Power Factor phase 1 -: leading and + : lagging : PF1   | 0.001 (Signed)    | 3                 | 0x7FFF                 |
| 451307                      | 51306       | C86A        | 1                    | Power Factor phase 2 -: leading and + : lagging : PF2   | 0.001 (Signed)    | 3                 | 0x7FFF                 |
| 451308                      | 51307       | C86B        | 1                    | Power Factor phase 3 -: leading and + : lagging : PF3   | 0.001 (Signed)    | 3                 | 0x7FFF                 |
| 451312                      | 51311       | C86F        | 1                    | Total Positive Active Energy (not resetable) : Ea+      | MWh               | 3                 | 0xFFFF                 |
| 451314                      | 51313       | C871        | 1                    | Total Negative Active Energy (not resetable) : Ea-      | MWh               | 3                 | 0xFFFF                 |

## C900 Hex: Temperatures

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description                         | Unit            | Modbus function # |
|-----------------------------|-------------|-------------|----------------------|-------------------------------------|-----------------|-------------------|
| 451457                      | 51456       | C900        | 1                    | Internal module Temperature present | yes(1) / no (0) | 3                 |
| 451458                      | 51457       | C901        | 1                    | Module Temperature                  | celsius degree  | 3                 |

## C6A0 Hex: Energies Per Tariff

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description  | Unit  | Modbus function # | Value if not available |
|-----------------------------|-------------|-------------|----------------------|--|-------|-------------------|------------------------|
| 450849                      | 50848       | C6A0        | 1                    | Total Tariff count (0-8)   |       | 3                 | 0                      |
| 450850                      | 50849       | C6A1        | 1                    | Current Tariff number (1 to 8)                                   |       | 3                 | 0                      |
| 450851                      | 50850       | C6A2        | 16                   | Tariff * Positive Active Energies (8 Tarrif Storage registers)   | kWh   | 3                 | 0xFFFFFFFF             |
| 450867                      | 50866       | C6B2        | 16                   | Tariff * Positive Reactive Energies (8 Tariff Storage registers) | kvarh | 3                 | 0xFFFFFFFF             |

## C950 Hex

### Total Harmonic Distortion (THD)

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description | Unit  | Modbus function # | Value if not available |
|-----------------------------|-------------|-------------|----------------------|-------------|-------|-------------------|------------------------|
| 451537                      | 51536       | C950        | 1                    | THD U12     | 0.10% | 3                 | 0XFFFF                 |
| 451538                      | 51537       | C951        | 1                    | THD U23     | 0.10% | 3                 | 0XFFFF                 |
| 451539                      | 51538       | C952        | 1                    | THD U31     | 0.10% | 3                 | 0XFFFF                 |
| 451540                      | 51539       | C953        | 1                    | THD V1      | 0.10% | 3                 | 0XFFFF                 |
| 451541                      | 51540       | C954        | 1                    | THD V2      | 0.10% | 3                 | 0XFFFF                 |
| 451542                      | 51541       | C955        | 1                    | THD V3      | 0.10% | 3                 | 0XFFFF                 |
| 451543                      | 51542       | C956        | 1                    | THD I1      | 0.10% | 3                 | 0XFFFF                 |
| 451544                      | 51543       | C957        | 1                    | THD I2      | 0.10% | 3                 | 0XFFFF                 |
| 451545                      | 51544       | C958        | 1                    | THD I3      | 0.10% | 3                 | 0XFFFF                 |
| 451546                      | 51545       | C959        | 1                    | THD In      | 0.10% | 3                 | 0XFFFF                 |

### E000 Hex: Network Setting

| <i>Modicon-style start address</i> | <i>Dec address</i> | <i>Hex address</i> | <i>Word count (16 bits)</i> | <i>Description</i>  | <i>Unit</i> | <i>Modbus function #</i> | <i>Value if not available</i> |
|------------------------------------|--------------------|--------------------|-----------------------------|---|-------------|--------------------------|-------------------------------|
| 457345                             | 57344              | E000               | 1                           | Network Type :<br>0 : 1BL<br>1 : 2BL<br>2 : 3BL<br>3 : 3NBL<br>4 : 4BL<br>5 : 4NBL<br>6 : 2BL | -           | 3,6,16                   | 0xFFFF                        |
| 457346                             | 57345              | E001               | 1                           | Current Transformer secondary :<br>1: 1 A<br>5: 5 A   | A           | 3,6,16                   | 0xFFFF                        |
| 457347                             | 57346              | E002               | 1                           | Current Transformer primary   | A           | 3,6,16                   | 0xFFFF                        |

### E200 Hex: Action System (Write Function Only)

| <i>Modicon-style start address</i> | <i>Dec address</i> | <i>Hex address</i> | <i>Word count (16 bits)</i> | <i>Description</i>  | <i>Unit</i> | <i>Modbus function #</i> |
|------------------------------------|--------------------|--------------------|-----------------------------|---|-------------|--------------------------|
| 457857                             | 57856              | E200               | 1                           | Action :<br>0xA1 : Product Configuration storage<br>0xB2 : Product reboot |             | 6                        |

# DIRIS A10 Specific Tables

## 8D50 Hex: Alarms

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description   | Unit  | Modbus function # |
|-----------------------------|-------------|-------------|----------------------|---|---|-------------------|
| 436177                      | 36176       | 8D50        | 1                    | Current alarm on lower threshold cause:<br>0 : No Alarm /<br>1 : I1 / 2 : I2 / 3 : I3 / 4 : IN /<br>5 : U12 / 6 : U23 / 7 : U31 /<br>8 : $\Sigma P+$ /<br>9 : $\Sigma Q+$ /<br>10 : $\Sigma S$ /<br>11 : F /<br>12 : $\Sigma PFL$ /<br>15 : thdI1 / 16: thdI2 / 17 : thdI3 /<br>18 : thdU12 / 19 : thdU23 / 20 : thdU31 /<br>21 : Hour /<br>22: V1 / 23 : V2 / 24 : V3 /<br>26: thdV1 / 27 : thdV2 / 28 : thd V3 /<br>31 : $\Sigma PFC$ /<br>32 : T°C 1 | "<br>0 : -<br>1 / 2 / 3 / 4 : mA<br>5 / 6 / 7 : mV<br>8 : mW<br>9 : mVAr<br>10 : mVA<br>11 : Hz/1000<br>12 : -<br>15 / 16 / 17 : /1000<br>18 / 19 / 20 : /1000<br>21 : Hour/100<br>22 / 23 / 24 : mV<br>31 : -<br>32 : °C/10" | 3                 |
| 436178                      | 36177       | 8D51        | 2                    | Current alarm on lower threshold : min value  | -   | 3                 |
| 436180                      | 36179       | 8D53        | 1                    | Current alarm on upper threshold cause:<br>0 : No Alarm /<br>1 : I1 / 2 : I2 / 3 : I3 / 4 : IN /<br>5 : U12 / 6 : U23 / 7 : U31 /<br>8 : $\Sigma P+$ /<br>9 : $\Sigma Q+$ /<br>10 : $\Sigma S$ /<br>11 : F /<br>12 : $\Sigma PFL$ /<br>15 : thdI1 / 16: thdI2 / 17 : thdI3 /<br>18 : thdU12 / 19 : thdU23 / 20 : thdU31 /<br>21 : Hour /<br>22: V1 / 23 : V2 / 24 : V3 /<br>26: thdV1 / 27 : thdV2 / 28 : thd V3 /<br>31 : $\Sigma PFC$ /<br>32 : T°C 1 | "<br>0 : -<br>1 / 2 / 3 / 4 : mA<br>5 / 6 / 7 : mV<br>8 : mW<br>9 : mVAr<br>10 : mVA<br>11 : Hz/1000<br>12 : -<br>15 / 16 / 17 : /1000<br>18 / 19 / 20 : /1000<br>21 : Hour/100<br>22 / 23 / 24 : mV<br>31 : -<br>32 : °C/10" | 3                 |
| 436181                      | 36180       | 8D54        | 2                    | Current alarm on upper threshold : max value  | -   | 3                 |
| 436183                      | 36182       | 8D56        | 1                    | Current alarm duration  | sec   | 3                 |



## 8E00 Hex: Table Setup

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description   | Unit | Modbus function # |
|-----------------------------|-------------|-------------|----------------------|---|------|-------------------|
| 436353                      | 36352       | 8E00        | 1                    | Network :<br>0 : 1BL<br>1 : 2BL<br>2 : 3BL<br>3 : 3NBL<br>4 : 4BL<br>5 : 4NBL   | /    | 3,6,16            |
| 436354                      | 36353       | 8E01        | 1                    | Current Transformer secondary :<br>1 : 1 A<br>5 : 5 A   | A    | 3,6,16            |
| 436355                      | 36354       | 8E02        | 1                    | Current Transformer primary   | A    | 3,6,16            |
| 436356                      | 36355       | 8E03        | 1                    | Reserved  |      | 3,6,16            |
| 436357                      | 36356       | 8E04        | 1                    | Integration time of I AVG/MAX:<br>2 : 2 seconds<br>10 : 10 seconds<br>300 : 5 minutes<br>480 : 8 minutes<br>600 : 10 Minutes<br>900 : 15 minutes<br>1200 : 20 minutes<br>1800 : 30 minutes<br>3600 : 60 minutes | /    | 3,6,16            |
| 436358                      | 36357       | 8E05        | 1                    | Integration time of P/Q/S AVG/MAX<br>10 : 10 seconds<br>300 : 5 minutes<br>480 : 8 minutes<br>600 : 10 Minutes<br>900 : 15 minutes<br>1200 : 20 minutes<br>1800 : 30 minutes<br>3600 : 60 minutes               | /    | 3,6,16            |
| 436359                      | 36358       | 8E06        | 1                    | OUT 1 : pulse output allocation :<br>0 : kWh+<br>1 : kvarh +<br>2 : Alarm<br>3 : Command  | /    | 3,6,16            |
| 436360                      | 36359       | 8E07        | 1                    | OUT 1 : pulse output value :<br>0 : 0,1 kWh/kvarh<br>1 : 1 kWh/kvarh<br>2 : 10 kWh/kvarh<br>3 : 100 kWh/kvarh<br>4 : 1000 kWh/kvarh<br>5 : 10000 kWh/kvarh  |      | 3,6,16            |
| 436361                      | 36360       | 8E08        | 1                    | OUT 1 : pulse output duration :<br>1 : 100ms - 2 : 200ms<br>3 : 300ms - 4 : 400ms<br>5 : 500ms - 6 : 600ms<br>7 : 700ms - 8 : 800ms<br>9 : 900ms*   |      | 3,6,16            |
| 436362                      | 36361       | 8E09        | 1                    | Hour meter allocation<br>1 : Auxiliary power supply<br>2 : Currents<br>3 : phase to phase voltage   |      | 3,6,16            |
| 436363                      | 36362       | 8E0A        | 1                    | Hour meter trigger threshold  | A/V  | 3,6,16            |

### 8E00 Hex: Table Setup (continued)

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description  | Unit | Modbus function # |
|-----------------------------|-------------|-------------|----------------------|--|------|-------------------|
| 436364                      | 36363       | 8E0B        | 1                    | Alarm Type :<br>1 : I<br>2 : In<br>3 : U<br>4 : V<br>5 : ΣP+<br>6 : ΣQ+<br>7 : ΣS+<br>8 : ΣPFC<br>9 : ΣPFL<br>5 : P<br>6 : Q<br>7 : S<br>8 : CPF<br>9 : LPF<br>10 : THDU<br>11 : THDV<br>12 : THDI<br>13 : HOUR<br>14 : F<br>15 : Internal temperature |      | 3,6,16            |
| 436365                      | 36364       | 8E0C        | 1                    | Alarm Specified time (0-999)   |      | 3,6,16            |
| 436366                      | 36365       | 8E0D        | 1                    | Alarm upper Threshold  |      | 3,6,16            |
| 436367                      | 36366       | 8E0E        | 1                    | Alarm Lower Threshold  |      | 3,6,16            |
| 436368                      | 36367       | 8E0F        | 1                    | Alarm Hysteresis(0-99)   |      | 3,6,16            |
| 436369                      | 36368       | 8E10        | 1                    | Relay State : (Remote command/monitor of relay)<br>0 : Open<br>1 : Closed  |      | 3,6,16            |

### 400 Hex: Reset Commands (Write Function Only)

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description  | Unit | Function |
|-----------------------------|-------------|-------------|----------------------|--|------|----------|
| 401025                      | 1024        | 400         | 1                    | Reset :<br>0x1 : Max 4I<br>0x2 : Max P+, Q+, S<br>0x40 : Hour meter<br>0x80 : kWh+<br>0x100 : kvarh+<br>0x1000 : Reset All | /    | 6        |

### C691 Hex: Reset (Energy Meters residual values [current kWh and kvarh])

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description  | Unit       | Function |
|-----------------------------|-------------|-------------|----------------------|--------------|------------|----------|
| 450834                      | 50833       | C691        | 1                    | Ea+ Residual | 0.01 kWh   | 3        |
| 450835                      | 50834       | C692        | 1                    | Er+ Residual | 0.01 kvarh | 3        |

### 1000 Hex: Customization Specific Data

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description   | Unit | Function |
|-----------------------------|-------------|-------------|----------------------|---|------|----------|
| 404097                      | 4096        | 1000        | 1                    | Customization specific data loaded<br>0x0000 : FALSE<br>0x0001 : TRUE |      | 3        |
| 404098                      | 4097        | 1001        | 1                    | Retrofit activated<br>0x0000 : FALSE<br>0x0001 : TRUE                 |      | 3        |
| 404099                      | 4098        | 1002        | 8                    | TC list :<br>TC 1 / TC2 / TC3 / TC4 / TC5 / TC6 / TC7 / TC8           | A    | 3        |
| 404107                      | 4106        | 100A        | 16                   | TC gain correction X1<br>2 words = 1 TC correction                    |      | 3        |
| 404123                      | 4122        | 101A        | 16                   | TC gain correction X2<br>2 words = 1 TC correction                    |      | 3        |

# DIRIS A20 Modbus Common Table version 1.01

## C350 Hex: Product Identification

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3                 | 3                   | C350          | 66   | FALSE       |

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description   | Unit  | Data type   |
|-----------------------------|-------------|-------------|----------------------|---|---|-------------|
| 450001                      | 50000       | C350        | 4                    | SOCO  |   | STRING_16   |
| 450005                      | 50004       | C354        | 1                    | Product order ID (Countis:100, Protection:200, Atys:300, Diris:400) |   | U16         |
| 450006                      | 50005       | C355        | 1                    | Product ID (EX: 1000 ATS3)  |   | U16         |
| 450007                      | 50006       | C356        | 1                    | JBUS Table Version (EX: 101 Version 1.01)                           |   | U16         |
| 450008                      | 50007       | C357        | 1                    | Product software version (EX: 100 Version 1.00)                     |   | U16         |
| 450009                      | 50008       | C358        | 1                    | Serial_AA_SS  | Poids fort : AA poids faible : SS           | U16_HEX     |
| 450010                      | 50009       | C359        | 1                    | Serial_SST_L  | Poids fort : SST poids faible : L           | U16_HEX     |
| 450011                      | 50010       | C35A        | 1                    | Serial_order  | order                                       | U16         |
| 450012                      | 50011       | C35B        | 2                    | Serial_Reserve  | Non used                                    | U32         |
| 450014                      | 50013       | C35D        | 4                    | See "Code table" tab for more details                               |   | U64_HEX     |
| 450018                      | 50017       | C361        | 1                    | Customization data loaded (True/False)                              |   | U8          |
| 450019                      | 50018       | C362        | 1                    | Product version (Major)   |   | U16         |
| 450020                      | 50019       | C363        | 1                    | Product version (Minor)   |   | U16         |
| 450021                      | 50020       | C364        | 1                    | Product version (Revision)  |   | U16         |
| 450022                      | 50021       | C365        | 1                    | Product version (Build)   |   | U16         |
| 450023                      | 50022       | C366        | 3                    | Product build date  | DDMM - YYhh - mmss                          | DATETIME_3  |
| 450026                      | 50025       | C369        | 1                    | Software technical base version (Major)                             |   | U16         |
| 450027                      | 50026       | C36A        | 1                    | Software technical base version (Minor)                             |   | U16         |
| 450028                      | 50027       | C36B        | 1                    | Software technical base version (Revision)                          |   | U16         |
| 450029                      | 50028       | C36C        | 1                    | Customization version (Major)                                       |   | U16         |
| 450030                      | 50029       | C36D        | 1                    | Customization version (Minor)                                       |   | U16         |
| 450031                      | 50030       | C36E        | 4                    | Product VLO (EX : "880100")   | "8 msb = first char<br>8 lsb = second char" | STRING_NORM |
| 450035                      | 50034       | C372        | 4                    | Customization VLO (EX : "880700")                                   | "8 msb = first char<br>8 lsb = second char" | STRING_NORM |
| 450039                      | 50038       | C376        | 4                    | Software technical base VLO (EX : "880600")                         | "8 msb = first char<br>8 lsb = second char" | STRING_NORM |
| 450043                      | 50042       | C37A        | 8                    | Vendor name (EX : "SOCOME")   | "8 msb = first char<br>8 lsb = second char" | STRING_NORM |
| 450051                      | 50050       | C382        | 8                    | Product name (EX : "DIRIS A40R")                                    | "8 msb = first char<br>8 lsb = second char" | STRING_NORM |
| 450059                      | 50058       | C38A        | 8                    | Extended name   | "8 msb = first char<br>8 lsb = second char" | STRING_NORM |

### C550 Hex : Measurement Data Affected by Current and Voltage Transformers

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | N/A               | 3                   | C550          | 62   | FALSE       |

### C650 Hex : Energy Measurement Data

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | N/A               | 3                   | C650          | 65   | FALSE       |

### C750 Hex : Measurement Data Affected by Current and Voltage Transformers

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | N/A               | 3                   | C750          | 70   | FALSE       |

### C850 Hex : Measurement Data Not Affected by Current and Voltage Transformers

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | N/A               | 3                   | C850          | 35   | FALSE       |

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description  | Unit              | Data type | Value if not available |
|-----------------------------|-------------|-------------|----------------------|--|-------------------|-----------|------------------------|
| 451281                      | 51280       | C850        | 1                    | Hour Meter   | h                 | U16       | 0xFFFF                 |
| 451282                      | 51281       | C851        | 1                    | Phase to Phase Voltage: U12                              | V/100             | U16       | 0xFFFF                 |
| 451283                      | 51282       | C852        | 1                    | Phase to Phase Voltage: U23                              | V/100             | U16       | 0xFFFF                 |
| 451284                      | 51283       | C853        | 1                    | Phase to Phase Voltage: U31                              | V/100             | U16       | 0xFFFF                 |
| 451285                      | 51284       | C854        | 1                    | Simple voltage : V1                                      | V/100             | U16       | 0xFFFF                 |
| 451286                      | 51285       | C855        | 1                    | Simple voltage : V2                                      | V/100             | U16       | 0xFFFF                 |
| 451287                      | 51286       | C856        | 1                    | Simple voltage : V3                                      | V/100             | U16       | 0xFFFF                 |
| 451288                      | 51287       | C857        | 1                    | Frequency : F  | Hz/100            | U16       | 0xFFFF                 |
| 451289                      | 51288       | C858        | 1                    | Current : I1   | mA                | U16       | 0xFFFF                 |
| 451290                      | 51289       | C859        | 1                    | Current : I2   | mA                | U16       | 0xFFFF                 |
| 451291                      | 51290       | C85A        | 1                    | Current : I3   | mA                | U16       | 0xFFFF                 |
| 451292                      | 51291       | C85B        | 1                    | Neutral Current : In                                     | mA                | U16       | 0xFFFF                 |
| 451293                      | 51292       | C85C        | 1                    | $\Sigma$ active Power +/- : P                            | kW/100 (Signed)   | S16       | 0x7FFF                 |
| 451294                      | 51293       | C85D        | 1                    | $\Sigma$ reactive Power +/- : Q                          | kvar/100 (Signed) | S16       | 0x7FFF                 |
| 451295                      | 51294       | C85E        | 1                    | $\Sigma$ apparent power : S                              | kVA/100           | U16       | 0xFFFF                 |
| 451296                      | 51295       | C85F        | 1                    | $\Sigma$ power factor : - : leading and + : lagging : PF | 0.001 (Signed)    | S16       | 0x7FFF                 |
| 451297                      | 51296       | C860        | 1                    | Active Power phase 1 +/- : P1                            | kW/100 (Signed)   | S16       | 0x7FFF                 |
| 451298                      | 51297       | C861        | 1                    | Active Power phase 2 +/- : P2                            | kW/100 (Signed)   | S16       | 0x7FFF                 |
| 451299                      | 51298       | C862        | 1                    | Active Power phase 3 +/- : P3                            | kW/100 (Signed)   | S16       | 0x7FFF                 |
| 451300                      | 51299       | C863        | 1                    | Reactive Power phase 1 +/- : Q1                          | kvar/100 (Signed) | S16       | 0x7FFF                 |
| 451301                      | 51300       | C864        | 1                    | Reactive Power phase 2 +/- : Q2                          | kvar/100 (Signed) | S16       | 0x7FFF                 |
| 451302                      | 51301       | C865        | 1                    | Reactive Power phase 3 +/- : Q3                          | kvar/100 (Signed) | S16       | 0x7FFF                 |
| 451303                      | 51302       | C866        | 1                    | Apparent power phase 1 : S1                              | kVA/100           | U16       | 0xFFFF                 |
| 451304                      | 51303       | C867        | 1                    | Apparent power phase 2 : S2                              | kVA/100           | U16       | 0xFFFF                 |
| 451305                      | 51304       | C868        | 1                    | Apparent power phase 3 : S3                              | kVA/100           | U16       | 0xFFFF                 |
| 451306                      | 51305       | C869        | 1                    | Power Factor phase 1 - : leading and + : lagging : PF1   | 0.001 (Signed)    | S16       | 0x7FFF                 |
| 451307                      | 51306       | C86A        | 1                    | Power Factor phase 2 - : leading and + : lagging : PF2   | 0.001 (Signed)    | S16       | 0x7FFF                 |
| 451308                      | 51307       | C86B        | 1                    | Power Factor phase 3 - : leading and + : lagging : PF3   | 0.001 (Signed)    | S16       | 0x7FFF                 |
| 451312                      | 51311       | C86F        | 1                    | Total Positive Active Energy (not resettable) : Ea+      | MWh               | U16       | 0xFFFF                 |
| 451314                      | 51313       | C871        | 1                    | Total Negative Active Energy (not resettable) : Ea-      | MWh               | U16       | 0xFFFF                 |

### C950 Hex: Total Harmonic Distortion

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3                 | 3                   | C950          | 10   | FALSE       |

### E000 Hex: Network Setting

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3, 6, 16          | 3, 6, 16            | E000          | 12   | FALSE       |

| Modicon-style start address | Dec address | Hex address | Word count (16 bits) | Description  | Unit | Data type | Value if not available |
|-----------------------------|-------------|-------------|----------------------|--|------|-----------|------------------------|
| 457345                      | 57344       | E000        | 1                    | Network Type :<br>0 : 1BL<br>1 : 2BL<br>2 : 3BL<br>3 : 3NBL<br>4 : 4BL<br>5 : 4NBL | -    | U8        | 0xFFFF                 |
| 457346                      | 57345       | E001        | 1                    | Current Transformer secondary :<br>1: 1 A<br>5: 5 A                                | -    | U8        | 0xFFFF                 |
| 457347                      | 57346       | E002        | 1                    | Current Transformer primary  | A    | U16       | 0xFFFF                 |

### E200 Hex: Action System

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 6                 | 6                   | E200          | 1    | FALSE       |

| Modicon-style start address | Dec. Address | Hex. Address | Word count (16 bits) | Description  | Unit | Data Type |
|-----------------------------|--------------|--------------|----------------------|--|------|-----------|
| 457857                      | 57856        | E200         | 1                    | Action :<br>0xA1 : Product Configuration storage<br>0xB2 : Product reset | enum | U8_HEX    |

# DIRIS A20 Specific Tables

## 8D00 Hex: Table Option

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3                 | READ                | 8D00          | 1    | FALSE       |

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description  | Unit | Data Type |
|-----------------------------|--------------|--------------|----------------------|--|------|-----------|
| 436097                      | 36096        | 8D00         | 1                    | Option Slot 2<br>0xFF : None<br>0x0 : Metering option<br>0x1 : Communication option<br>0x2 : 3 inputs + 1 output option" |      | U8        |

## 8D50 Hex: Alarm

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3                 | READ                | 8D50          | 7    | FALSE       |

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description  | Unit  | Data Type |
|-----------------------------|--------------|--------------|----------------------|--|---|-----------|
| 436177                      | 36176        | 8D50         | 1                    | Current alarm on lower threshold cause:<br>0 : No Alarm /<br>1 : I1 / 2 : I2 / 3 : I3 / 4 : IN /<br>5 : U12 / 6 : U23 / 7 : U31 /<br>8 : ΣP+ /<br>9 : ΣQ+ /<br>10 : ΣS /<br>11 : F /<br>12 : ΣPFL /<br>15 : thdI1 / 16 : thdI2 / 17 : thdI3 /<br>18 : thdU12 / 19 : thdU23 / 20 : thdU31 /<br>21 : Hour /<br>22 : V1 / 23 : V2 / 24 : V3 /<br>26 : thdV1 / 27 : thdV2 / 28 : thd V3 /<br>31 : ΣPFC | "<br>0 : -<br>1 / 2 / 3 / 4 : mA<br>5 / 6 / 7 : mV<br>8 : mW<br>9 : mVAr<br>10 : mVA<br>11 : Hz/1000<br>12 : -<br>15 / 16 / 17 : /1000<br>18 / 19 / 20 : /1000<br>21 : Hour/100<br>22 / 23 / 24 : mV<br>31 : -" | U8        |
| 436178                      | 36177        | 8D51         | 2                    | Current alarm on lower threshold : min value   | -   | U32       |
| 436180                      | 36179        | 8D53         | 1                    | Current alarm on upper threshold cause:<br>0 : No Alarm /<br>1 : I1 / 2 : I2 / 3 : I3 / 4 : IN /<br>5 : U12 / 6 : U23 / 7 : U31 /<br>8 : ΣP+ /<br>9 : ΣQ+ /<br>10 : ΣS /<br>11 : F /<br>12 : ΣPFL /<br>15 : thdI1 / 16 : thdI2 / 17 : thdI3 /<br>18 : thdU12 / 19 : thdU23 / 20 : thdU31 /<br>21 : Hour /<br>22 : V1 / 23 : V2 / 24 : V3 /<br>26 : thdV1 / 27 : thdV2 / 28 : thd V3 /<br>31 : ΣPFC | "<br>0 : -<br>1 / 2 / 3 / 4 : mA<br>5 / 6 / 7 : mV<br>8 : mW<br>9 : mVAr<br>10 : mVA<br>11 : Hz/1000<br>12 : -<br>15 / 16 / 17 : /1000<br>18 / 19 / 20 : /1000<br>21 : Hour/100<br>22 / 23 / 24 : mV<br>31 : -" | U8        |
| 436181                      | 36180        | 8D54         | 2                    | Current alarm on upper threshold : max value   | -   | U32       |
| 436183                      | 36182        | 8D56         | 1                    | Current alarm duration   | s   | U8        |

## 8E00 Hex: Table Setup

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3, 6, 16          | 3, 6, 16            | 8E00          | 17   | FALSE       |

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description   | Unit | Data Type |
|-----------------------------|--------------|--------------|----------------------|---|------|-----------|
| 436353                      | 36352        | 8E00         | 1                    | Network Type :<br>0 : 1BL<br>1 : 2BL<br>2 : 3BL<br>3 : 3NBL<br>4 : 4BL<br>5 : 4NBL  | /    | U8        |
| 436354                      | 36353        | 8E01         | 1                    | Current Transformer secondary :<br>1: 1 A<br>5: 5 A   | A    | U8        |
| 436355                      | 36354        | 8E02         | 1                    | Current Transformer primary   | A    | U8        |
| 436356                      | 36355        | 8E03         | 1                    | Reserved  |      | U8        |
| 436357                      | 36356        | 8E04         | 1                    | Integration time of I AVG/MAX:<br>2 : 2 seconds<br>300 : 5 minutes<br>480 : 8 minutes<br>600 : 10 Minutes<br>900 : 15 minutes<br>1200 : 20 minutes<br>1800 : 30 minutes<br>3600 : 60 minutes    | /    | U8        |
| 436358                      | 36357        | 8E05         | 1                    | Integration time of P/Q/S AVG/MAX<br>2 : 2 seconds<br>300 : 5 minutes<br>480 : 8 minutes<br>600 : 10 Minutes<br>900 : 15 minutes<br>1200 : 20 minutes<br>1800 : 30 minutes<br>3600 : 60 minutes | /    | U8        |
| 436359                      | 36358        | 8E06         | 1                    | OUT : pulse output allocation :<br>0 : kWh+<br>1 : kvarh +<br>2 : Alarm<br>3 : Command  | /    | U8        |
| 436360                      | 36359        | 8E07         | 1                    | OUT : pulse output value :<br>0 : 0.1 kWh/kvarh<br>1 : 1 kWh/kvarh<br>2 : 10 kWh/kvarh<br>3 : 100 kWh/kvarh<br>4 : 1000 kWh/kvarh<br>5 : 10000 kWh/kvarh  | /    | U8        |
| 436361                      | 36360        | 8E08         | 1                    | OUT : pulse output duration :<br>1 : 100ms<br>2 : 200ms<br>3 : 300ms<br>4 : 400ms<br>5 : 500ms<br>6 : 600ms<br>7 : 700ms<br>8 : 800ms<br>9 : 900ms  | /    | U8        |



### 8E00 Hex: Table Setup (continued)

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description  | Unit | Data Type |
|-----------------------------|--------------|--------------|----------------------|--|------|-----------|
| 436362                      | 36361        | 8E09         | 1                    | Hour meter allocation<br>1 : Auxiliary power supply<br>2 : Currents<br>3 : phase to phase voltage<br>4 : Input 1<br>5 : Input 2<br>6 : Input 3                           |      | U8        |
| 436363                      | 36362        | 8E0A         | 1                    | Hour meter trigger threshold   | AV   | U8        |
| 436364                      | 36363        | 8E0B         | 1                    | Alarm Type :<br>1 : I<br>2 : In<br>3 : U<br>4 : V<br>5 : ΣP+<br>6 : ΣQ+<br>7 : ΣS+<br>8 : ΣPFC<br>9 : ΣPFL<br>10 : THDU<br>11 : THDV<br>12 : THDI<br>13 : HOUR<br>14 : F | /    | U8        |
| 436365                      | 36364        | 8E0C         | 1                    | Alarm Specified time (0-999)   | s    | U8        |
| 436366                      | 36365        | 8E0D         | 1                    | Alarm upper Threshold  |      | U8        |
| 436367                      | 36366        | 8E0E         | 1                    | Alarm Lower Threshold  |      | U8        |
| 436368                      | 36367        | 8E0F         | 1                    | Alarm Hysteresis(0-99)   |      | U8        |
| 436369                      | 36368        | 8E10         | 1                    | Relay State : (Remote command/monitor of relay)<br>0 : Normaly Open<br>1 : Normaly Closed  | /    | U8        |

### 400 Hex: Reset Commands (Write Function Only)

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 6                 | 6                   | 400           | 1    | FALSE       |

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description  | Unit | Data Type |
|-----------------------------|--------------|--------------|----------------------|--|------|-----------|
| 401025                      | 1024         | 400          | 1                    | Reset :<br>0x1 : Max 4l<br>0x2 : Max P+,Q+,S<br>0x40 : Hour meter<br>0x80 : kWh+<br>0x100 : kvarh+<br>0x1000 : Reset All | /    | U8        |

## 1000 Hex: Customization Specific Data

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3                 | 3                   | 1000          | 138  | FALSE       |

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description   | Unit | Data Type |
|-----------------------------|--------------|--------------|----------------------|---|------|-----------|
| 404097                      | 4096         | 1000         | 1                    | Customization specific data loaded<br>0x0000 : FALSE<br>0x0001 : TRUE |      | U8        |
| 404098                      | 4097         | 1001         | 1                    | Retrofit activated<br>0x0000 : FALSE<br>0x0001 : TRUE                 |      | U8        |
| 404099                      | 4098         | 1002         | 8                    | TC list :<br>TC 1 / TC2 / TC3 / TC4 / TC5 / TC6 / TC7 / TC8           | A    | U32[]     |
| 404107                      | 4106         | 100A         | 16                   | TC gain correction X1<br>2 words = 1 TC correction                    |      | U32[]     |
| 404123                      | 4122         | 101A         | 16                   | TC gain correction X2<br>2 words = 1 TC correction                    |      | U32[]     |
| 404139                      | 4138         | 102A         | 16                   | TC gain correction Y1<br>2 words = 1 TC correction                    |      | U32[]     |
| 404155                      | 4154         | 103A         | 16                   | TC gain correction Y2<br>2 words = 1 TC correction                    |      | U32[]     |
| 404171                      | 4170         | 104A         | 16                   | TC phasys correction X1<br>2 words = 1 TC correction                  |      | U32[]     |
| 404187                      | 4186         | 105A         | 16                   | TC phasys correction X2<br>2 words = 1 TC correction                  |      | U32[]     |
| 404203                      | 4202         | 106A         | 16                   | TC phasys correction Y1<br>2 words = 1 TC correction                  |      | U32[]     |
| 404219                      | 4218         | 107A         | 16                   | TC phasys correction Y2<br>2 words = 1 TC correction                  |      | U32[]     |

## 2000 Hex: Input Status

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3                 | 3                   | 2000          | 3    | FALSE       |

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description   | Unit | Data Type |
|-----------------------------|--------------|--------------|----------------------|---------------|------|-----------|
| 408193                      | 8192         | 2000         | 1                    | Input 1 state |      | U8        |
| 408194                      | 8193         | 2001         | 1                    | Input 2 state |      | U8        |
| 408195                      | 8194         | 2002         | 1                    | Input 3 state |      | U8        |

# Compatibility With Old Communication Table

## 300 Hex: Measurement CT/VT Affected

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3                 | 3                   | 300           | 150  | FALSE       |

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description   | Unit     | Data Type |
|-----------------------------|--------------|--------------|----------------------|---|----------|-----------|
| 400769                      | 768          | 300          | 2                    | Phase 1 Current                                     | mA       | U32       |
| 400771                      | 770          | 302          | 2                    | Phase 2 Current                                     | mA       | U32       |
| 400773                      | 772          | 304          | 2                    | Phase 3 Current                                     | mA       | U32       |
| 400775                      | 774          | 306          | 2                    | Neutral Current                                     | mA       | U32       |
| 400777                      | 776          | 308          | 2                    | Phase to Phase Voltage: U12                         | V/100    | U32       |
| 400779                      | 778          | 30A          | 2                    | Phase to Phase Voltage: U23                         | V/100    | U32       |
| 400781                      | 780          | 30C          | 2                    | Phase to Phase Voltage: U31                         | V/100    | U32       |
| 400783                      | 782          | 30E          | 2                    | Phase to Neutral voltage phase 1                    | V/100    | U32       |
| 400785                      | 784          | 310          | 2                    | Phase to Neutral voltage phase 2                    | V/100    | U32       |
| 400787                      | 786          | 312          | 2                    | Phase to Neutral voltage phase 3                    | V/100    | U32       |
| 400789                      | 788          | 314          | 2                    | Frequency   | Hz/100   | U32       |
| 400791                      | 790          | 316          | 2                    | $\Sigma$ active power +/- : P                       | kW/100   | U32       |
| 400793                      | 792          | 318          | 2                    | $\Sigma$ reactive power +/- : Q                     | kvar/100 | U32       |
| 400795                      | 794          | 31A          | 2                    | $\Sigma$ apparent power : S                         | kVA/100  | U32       |
| 400797                      | 796          | 31C          | 2                    | $\Sigma$ power factor : -: leading + : lagging : PF | 0.001    | U32       |
| 400799                      | 798          | 31E          | 2                    | Active Power phase1 +/-                             | kW/100   | U32       |
| 400801                      | 800          | 320          | 2                    | Active Power phase2 +/-                             | kW/100   | U32       |
| 400803                      | 802          | 322          | 2                    | Active Power phase3 +/-                             | kW/100   | U32       |
| 400805                      | 804          | 324          | 2                    | Reactive Power phase1 +/-                           | kVar/100 | U32       |
| 400807                      | 806          | 326          | 2                    | Reactive Power phase2 +/-                           | kVar/100 | U32       |
| 400809                      | 808          | 328          | 2                    | Reactive Power phase3 +/-                           | kVar/100 | U32       |
| 400811                      | 810          | 32A          | 2                    | Apparent Power phase1                               | kVa/100  | U32       |
| 400813                      | 812          | 32C          | 2                    | Apparent Power phase2                               | kVa/100  | U32       |
| 400815                      | 814          | 32E          | 2                    | Apparent Power phase3                               | kVa/100  | U32       |
| 400817                      | 816          | 330          | 2                    | Power factor phase 1 -:leading and +: lagging       | 0.001    | U32       |
| 400819                      | 818          | 332          | 2                    | Power factor phase 2 -:leading and +: lagging       | 0.001    | U32       |
| 400821                      | 820          | 334          | 2                    | Power factor phase 3 -:leading and +: lagging       | 0.001    | U32       |
| 400823                      | 822          | 336          | 16                   | Reserved  |          | U32[]     |
| 400839                      | 838          | 346          | 2                    | Max/Avg I1  | mA       | U32       |
| 400841                      | 840          | 348          | 2                    | Max/Avg I2  | mA       | U32       |
| 400843                      | 842          | 34A          | 2                    | Max/Avg I3  | mA       | U32       |
| 400845                      | 844          | 34C          | 2                    | Max/Avg $\Sigma$ active power +                     | kW/100   | U32       |
| 400847                      | 846          | 34E          | 2                    | Reserved  |          | U32       |
| 400849                      | 848          | 350          | 2                    | Max/Avg $\Sigma$ reactive power +                   | kVar/100 | U32       |
| 400851                      | 850          | 352          | 2                    | Reserved  |          | U32       |
| 400853                      | 852          | 354          | 2                    | Max/Avg $\Sigma$ apparent power                     | kVa/100  | U32       |
| 400855                      | 854          | 356          | 2                    | Hour Meter  | Hour/100 | U32       |
| 400857                      | 856          | 358          | 2                    | Active Energy +                                     | kWh      | U32       |
| 400859                      | 858          | 35A          | 2                    | Reactive Energy +                                   | kvarh    | U32       |
| 400861                      | 860          | 35C          | 56                   | Reserved  |          | U32[]     |
| 400917                      | 916          | 394          | 2                    | Max/Avg In  | mA       | U32       |

## 700 Hex: Measurement NOT CT/VT Affected

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3                 | 3                   | 700           | 100  | FALSE       |

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description   | Unit     | Data Type |
|-----------------------------|--------------|--------------|----------------------|---|----------|-----------|
| 401793                      | 1792         | 700          | 1                    | Phase 1 Current                                     | mA       | U8        |
| 401794                      | 1793         | 701          | 1                    | Phase 2 Current                                     | mA       | U8        |
| 401795                      | 1794         | 702          | 1                    | Phase 3 Current                                     | mA       | U8        |
| 401796                      | 1795         | 703          | 1                    | Neutral Current                                     | mA       | U8        |
| 401797                      | 1796         | 704          | 1                    | Phase to Phase Voltage: U12                         | V/100    | U8        |
| 401798                      | 1797         | 705          | 1                    | Phase to Phase Voltage: U23                         | V/100    | U8        |
| 401799                      | 1798         | 706          | 1                    | Phase to Phase Voltage: U31                         | V/100    | U8        |
| 401800                      | 1799         | 707          | 1                    | Phase to Neutral voltage phase 1                    | V/100    | U8        |
| 401801                      | 1800         | 708          | 1                    | Phase to Neutral voltage phase 2                    | V/100    | U8        |
| 401802                      | 1801         | 709          | 1                    | Phase to Neutral voltage phase 3                    | V/100    | U8        |
| 401803                      | 1802         | 70A          | 1                    | Frequency   | Hz/100   | U8        |
| 401804                      | 1803         | 70B          | 1                    | $\Sigma$ active power +/- : P                       | kW/100   | U8        |
| 401805                      | 1804         | 70C          | 1                    | $\Sigma$ reactive power +/- : Q                     | kvar/100 | U8        |
| 401806                      | 1805         | 70D          | 1                    | $\Sigma$ apparent power : S                         | kVA/100  | U8        |
| 401807                      | 1806         | 70E          | 1                    | $\Sigma$ power factor : -: leading + : lagging : PF | 0.001    | U8        |
| 401808                      | 1807         | 70F          | 1                    | Active Power phase1 +/-                             | kW/100   | U8        |
| 401809                      | 1808         | 710          | 1                    | Active Power phase2 +/-                             | kW/100   | U8        |
| 401810                      | 1809         | 711          | 1                    | Active Power phase3 +/-                             | kW/100   | U8        |
| 401811                      | 1810         | 712          | 1                    | Reactive Power phase1 +/-                           | kVar/100 | U8        |
| 401812                      | 1811         | 713          | 1                    | Reactive Power phase2 +/-                           | kVar/100 | U8        |
| 401813                      | 1812         | 714          | 1                    | Reactive Power phase3 +/-                           | kVar/100 | U8        |
| 401814                      | 1813         | 715          | 1                    | Apparent Power phase1                               | kVa/100  | U8        |
| 401815                      | 1814         | 716          | 1                    | Apparent Power phase2                               | kVa/100  | U8        |
| 401816                      | 1815         | 717          | 1                    | Apparent Power phase3                               | kVa/100  | U8        |
| 401817                      | 1816         | 718          | 1                    | Power factor phase 1 -:leading and +: lagging       | 0.001    | U8        |
| 401818                      | 1817         | 719          | 1                    | Power factor phase 2 -:leading and +: lagging       | 0.001    | U8        |
| 401819                      | 1818         | 71A          | 1                    | Power factor phase 3 -:leading and +: lagging       | 0.001    | U8        |
| 401820                      | 1819         | 71B          | 8                    | Reserved  |          | U16[]     |
| 401828                      | 1827         | 723          | 1                    | Max/Avg I1  | mA       | U8        |
| 401829                      | 1828         | 724          | 1                    | Max/Avg I2  | mA       | U8        |
| 401830                      | 1829         | 725          | 1                    | Max/Avg I3  | mA       | U8        |
| 401831                      | 1830         | 726          | 1                    | Max/Avg $\Sigma$ active power +                     | kW/100   | U8        |
| 401832                      | 1831         | 727          | 1                    | Reserved  |          | U8        |
| 401833                      | 1832         | 728          | 1                    | Max/Avg $\Sigma$ reactive power +                   | kVar/100 | U8        |
| 401834                      | 1833         | 729          | 1                    | Reserved  |          | U8        |
| 401835                      | 1834         | 72A          | 1                    | Max/Avg $\Sigma$ apparent power                     | kVa/100  | U8        |
| 401836                      | 1835         | 72B          | 1                    | Active Energy +<10 000                              | kWh      | U8        |
| 401837                      | 1836         | 72C          | 1                    | Active Energy +>10 000                              | kWh      | U8        |
| 401838                      | 1837         | 72D          | 1                    | Reactive Energy+< 10 000                            | kvarh    | U8        |
| 401839                      | 1838         | 72E          | 1                    | Reactive Energy +>10 000                            | kvarh    | U8        |
| 401840                      | 1839         | 72F          | 52                   | Reserved  |          | U16[]     |
| 401892                      | 1891         | 763          | 1                    | Max/Avg In  | mA       | U8        |

## 100 Hex: Option

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3                 | 3                   | 100           | 4    | FALSE       |

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description   | Unit | Data Type |
|-----------------------------|--------------|--------------|----------------------|---|------|-----------|
| 400257                      | 256          | 100          | 1                    | Product option code (bit field) :<br>bit 1: Metering Option<br>bit 2: Communication option<br>bit 3: 3 inputs + 1 output option |      | U8        |
| 400258                      | 257          | 101          | 1                    | Reserved  |      | U8        |
| 400259                      | 258          | 102          | 1                    | Option Slot 1<br>0xFF : None<br>0x0 : Metering option<br>0x1 : Communication option<br>0x2 : 3 inputs + 1 output option         |      | U8        |
| 400260                      | 259          | 103          | 1                    | Option Slot 2<br>0xFF : None<br>0x0 : Metering option<br>0x1 : Communication option<br>0x2 : 3 inputs + 1 output option         |      | U8        |

## 200 Hex: Setup

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3, 6, 16N/A       | 3,6,16              | 200           | 108  | FALSE       |

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description   | Unit | Data Type |
|-----------------------------|--------------|--------------|----------------------|---|------|-----------|
| 400513                      | 512          | 200          | 1                    | Network Type :<br>0 : 1BL<br>1 : 2BL<br>2 : 3BL<br>3 : 3NBL<br>4 : 4BL<br>5 : 4NBL  | /    | U8        |
| 400514                      | 513          | 201          | 1                    | Current Transformer secondary :<br>1: 1 A<br>5: 5 A   | A    | U8        |
| 400515                      | 514          | 202          | 1                    | Current Transformer primary   | A    | U8        |
| 400516                      | 515          | 203          | 4                    | Reserved  |      | U16[]     |
| 400520                      | 519          | 207          | 1                    | Integration time of I AVG/MAX:<br>2 : 2 seconds<br>300 : 5 minutes<br>480 : 8 minutes<br>600 : 10 Minutes<br>900 : 15 minutes<br>1200 : 20 minutes<br>1800 : 30 minutes<br>3600 : 60 minutes    | /    | U8        |
| 400521                      | 520          | 208          | 1                    | Integration time of P/Q/S AVG/MAX<br>2 : 2 seconds<br>300 : 5 minutes<br>480 : 8 minutes<br>600 : 10 Minutes<br>900 : 15 minutes<br>1200 : 20 minutes<br>1800 : 30 minutes<br>3600 : 60 minutes | /    | U8        |

## 200 Hex: Setup (continued)

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description  | Unit | Data Type |
|-----------------------------|--------------|--------------|----------------------|--|------|-----------|
| 400522                      | 521          | 209          | 1                    | OUT : pulse output allocation :<br>0 : kWh+<br>1 : kvarh +<br>2 : Alarm<br>3 : Command   | /    | U8        |
| 400523                      | 522          | 20A          | 1                    | OUT : pulse output value :<br>0 : 0.1 kWh/kvarh<br>1 : 1 kWh/kvarh<br>2 : 10 kWh/kvarh<br>3 : 100 kWh/kvarh<br>4 : 1000 kWh/kvarh<br>5 : 10000 kWh/kvarh                 | /    | U8        |
| 400524                      | 523          | 20B          | 1                    | OUT : pulse output duration :<br>1 : 100ms<br>2 : 200ms<br>3 : 300ms<br>4 : 400ms<br>5 : 500ms<br>6 : 600ms<br>7 : 700ms<br>8 : 800ms<br>9 : 900ms                       | /    | U8        |
| 400525                      | 524          | 20C          | 27                   | Reserved   |      | U16[]     |
| 400552                      | 551          | 227          | 1                    | Alarm Type :<br>1 : I<br>2 : In<br>3 : U<br>4 : V<br>5 : ΣP+<br>6 : ΣQ+<br>7 : ΣS+<br>8 : ΣPFC<br>9 : ΣPFL<br>10 : THDU<br>11 : THDV<br>12 : THDI<br>13 : HOUR<br>14 : F |      | U8        |
| 400553                      | 552          | 228          | 1                    | Alarm Upper Threshold  |      | U8        |
| 400554                      | 553          | 229          | 1                    | Reserved   |      | U8        |
| 400555                      | 554          | 22A          | 1                    | Alarm Lower Threshold  |      | U8        |
| 400556                      | 555          | 22B          | 1                    | Reserved   |      | U8        |
| 400557                      | 556          | 22C          | 1                    | Alarm Hysteresis(0-99)   |      | U8        |
| 400558                      | 557          | 22D          | 1                    | Alarm Specified Time (0-999)   | s    | U8        |
| 400559                      | 558          | 22E          | 1                    | Relay State :<br>0 : Normaly Open<br>1 : Normaly Closed  | /    | U8        |
| 400560                      | 559          | 22F          | 58                   | Reserved   |      | U16[]     |
| 400618                      | 617          | 269          | 1                    | Hour Meter Allocation<br>1 : Auxiliary power supply<br>2 : Currents<br>3 : phase to phase voltage<br>4 : Input 1<br>5 : Input 2<br>6 : Input 3                           | /    | U8        |
| 400619                      | 618          | 26A          | 1                    | Hour meter trigger threshold   | AV   | U8        |
| 400620                      | 619          | 26B          | 1                    | Reserved   |      | U8        |

## 500 Hex: Alarms

| Type     | Lock level | Locked function # | Unlocked function # | Start address | Size | Debug table |
|----------|------------|-------------------|---------------------|---------------|------|-------------|
| Standard | None       | 3                 | 3                   | 500           | 7    | FALSE       |

| Modicon-style start address | Address Dec. | Address Hex. | Word Count (16 bits) | Description  | Unit  | Data Type |
|-----------------------------|--------------|--------------|----------------------|--|---|-----------|
| 401281                      | 1280         | 500          | 1                    | Current alarm on lower threshold cause:<br>0 : No Alarm /<br>1 : I1 / 2 : I2 / 3 : I3 / 4 : IN /<br>5 : U12 / 6 : U23 / 7 : U31 /<br>8 : $\Sigma P+$ /<br>9 : $\Sigma Q+$ /<br>10 : $\Sigma S$ /<br>11 : F /<br>12 : $\Sigma PFL$ /<br>15 : thdI1 / 16 : thdI2 / 17 : thdI3 /<br>18 : thdU12 / 19 : thdU23 / 20 : thdU31 /<br>21 : Hour /<br>22 : V1 / 23 : V2 / 24 : V3 /<br>26 : thdV1 / 27 : thdV2 / 28 : thd V3 /<br>31 : $\Sigma PFC$ | "<br>0 : -<br>1 / 2 / 3 / 4 : mA<br>5 / 6 / 7 : mV<br>8 : mW<br>9 : mVAr<br>10 : mVA<br>11 : Hz/1000<br>12 : -<br>15 / 16 / 17 : /1000<br>18 / 19 / 20 : /1000<br>21 : Hour/100<br>22 / 23 / 24 : mV<br>31 : -" | U8        |
| 401282                      | 1281         | 501          | 2                    | Current alarm on lower threshold : min value   | -   | S32       |
| 401284                      | 1283         | 503          | 1                    | Current alarm on upper threshold cause:<br>0 : No Alarm /<br>1 : I1 / 2 : I2 / 3 : I3 / 4 : IN /<br>5 : U12 / 6 : U23 / 7 : U31 /<br>8 : $\Sigma P+$ /<br>9 : $\Sigma Q+$ /<br>10 : $\Sigma S$ /<br>11 : F /<br>12 : $\Sigma PFL$ /<br>15 : thdI1 / 16 : thdI2 / 17 : thdI3 /<br>18 : thdU12 / 19 : thdU23 / 20 : thdU31 /<br>21 : Hour /<br>22 : V1 / 23 : V2 / 24 : V3 /<br>26 : thdV1 / 27 : thdV2 / 28 : thd V3 /<br>31 : $\Sigma PFC$ | "<br>0 : -<br>1 / 2 / 3 / 4 : mA<br>5 / 6 / 7 : mV<br>8 : mW<br>9 : mVAr<br>10 : mVA<br>11 : Hz/1000<br>12 : -<br>15 / 16 / 17 : /1000<br>18 / 19 / 20 : /1000<br>21 : Hour/100<br>22 / 23 / 24 : mV<br>31 : -" | U8        |
| 401285                      | 1284         | 504          | 2                    | Current alarm on upper threshold : max value   | -   | S32       |
| 401287                      | 1286         | 506          | 1                    | Current alarm duration   | s   | U8        |