

Input Registers (Read Only, fc = 4)

| Address | Name              | Size | Description                                  |
|---------|-------------------|------|--|
| 0000    | SerialNumber      | 5    | Device's serial number                       |
| 0005    | FirmwareVersion   | 1    | Firmware version of the application          |
| 0006    | MsSinceBoot       | 4    | Milliseconds since boot                      |
| 000A    | SaveEEPROM*       | 1    | Persist settings (in EEPROM)                 |
| 000B    | FactoryDefaults*  | 1    | Reset settings to factory defaults           |
| 000C    | Reset*            | 1    | Restart application                          |
| 000D    | EnterBootloader*  | 1    | Enter bootloader mode                        |
| 000E    | ChallanceResponse | 1    | Used to verify code                          |
| 000F    | EnableTestMode    | 1    | Not used                                     |
| 0010    | ExternalLock      | 1    | Active external cable lock                   |
| 0011    | I2c errors        | 1    | Read and reset number of internal I2C errors |
|         |                   |      | *: protected by magic (default: 0xabcd)      |

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| Address       | Name            | Registers | Description   |
|---------------|-----------------|-----------|---|
| <b>0100</b>   | MinPilot        | 1         | Minimum value measured of pilot signal                                |
| <b>0101</b>   | MaxPilot        | 1         | Maximum value measured of pilot signal                                |
| <b>0102 L</b> | MaxCableCurrent | 1/2       | Current rating of attached cable                                      |
| <b>0102 H</b> | MaxCurrent      | 1/2       | Advertised current  |
| <b>0103 L</b> | State           | 1/2       | IEC61851 state  |
| <b>0103 H</b> | Error           | 1/2       | Error code  |
| <b>0104</b>   | Temperature     | 1         | Temperature of board  |
| <b>0105</b>   | CurrentL1       | 1         | Current draw measured on L1   |
| <b>0106</b>   | CurrentL2       | 1         | Current draw measured on L2   |
| <b>0107</b>   | CurrentL3       | 1         | Current draw measured on L3   |
| <b>0108</b>   | EnergySession   | 1         | Energy delivered (in 1/256 KWh) during current charging session       |
| <b>0109</b>   | VoltageL1       | 1         | Voltage on L1 output  |
| <b>010A</b>   | VoltageL2       | 1         | Voltage on L2 output  |
| <b>010B</b>   | VoltageL3       | 1         | Voltage on L3 output  |
| <b>010C</b>   | Options         | 1         | bits: 7: x, 6: x, 5: x, 4: x, 3: x, 2: x, 1: 32A/16A, 0: DCL          |
| <b>010D</b>   | Energy          | 2         | Total energy delivered (in 1/256 KWh) by board                        |
| <b>010F</b>   | EnergySessionL1 | 1         | Energy delivered (in 1/256 KWh) during current charging session on L1 |
| <b>0110</b>   | EnergySessionL2 | 1         | Energy delivered (in 1/256 KWh) during current charging session on L2 |
| <b>0111</b>   | EnergySessionL3 | 1         | Energy delivered (in 1/256 KWh) during current charging session on L3 |
| <b>0112</b>   | Earth quality   | 1         | Earth quality (experimental feature)                                  |

Input Registers (Read/Write, fc = 3/5/6)

| Address | Name                           | Size | Description   |
|---------|--------------------------------|------|---|
| 0100 L  | ModbusAddress                  | 1/2  | Modbus address  |
| 0100 H  | Discovery                      | 1/2  | Not used  |
| 0101 L  | RemoteMaxCurrent               | 1/2  | Limiting advertised current to this value                     |
| 0101 H  | RemoteMaxCurrentNext<br>Second | 1/2  | Limiting advertised current to this value for the next second |
| 0102    | MagicResetCode                 | 1    | Used to change magic code                                     |
| 0103    | Challange                      | 1    | Used to verify code   |
| 0104    | Settings                       | 1    | bits: 7: x, 6: x, 5: x, 4: x, 3: x, 2: x, 1: LOCK, 0: PHASES  |
| 0105    | Led                            | 1    | value: 0: GRB_ONBOARD, 1: NEO_STRIP_36                        |

# Bootloader registers (ModBus address 0xF0)

| Address<br>[hex] | Function Code<br>[hex] | Registers | Name              | Description   |
|------------------|------------------------|-----------|-------------------|---|
| 500              | 4                      | -         | BootloaderVersion | Bootloader version or 0 when address at application modbus address                    |
| address          | 10                     | 64        | FlashPage         | low address byte indicates flash page, high address indicates "this is the last page" |
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