# Remote I/O Communication Module

Specification and Installation Instructions

## Models

**CMMB1020**

## Description

The CMMB1020 extends your BACnet or Modbus network when your application requires additional inputs and outputs on a physical controller. Capitalizing on the high-density I/O point count of 30 universal inputs and 20 outputs enables the CMMB1020 to provide a cost effective yet advanced integration capability.

CMMB1020

## Features

### Power & Communication

- 24Vac or 24Vdc supply
- BACnet® MS/TP or Modbus communication port (selectable)

### Inputs & Outputs

- 30 universal inputs
- 4 universal outputs
- 4 analog outputs
- 12 binary outputs

### Installation

- LED status indication of each output
- DIN rail mounting
- Removable, non-strip, raising clamp terminals

### Other

- 16-bit A/D Converter for greater resolution
- Supports Pt1000 and Ni1000

## Network Communication

- BACnet® MS/TP or Modbus communication ports (selectable via DIP switch)
- Select MAC address via DIP switch or via network

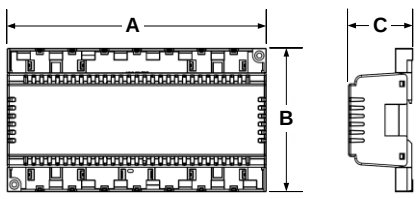
### BACnet®

- MS/TP @ 9600, 19200, 38400, 76800 or 115000 bps
- Automatic baud rate detection
- Automatic device instance configuration
- Improved BACnet Stack
- Firmware upgradable via BACnet
- Expansion slot for connection to Neptronic RPB BACnet Router

### Modbus

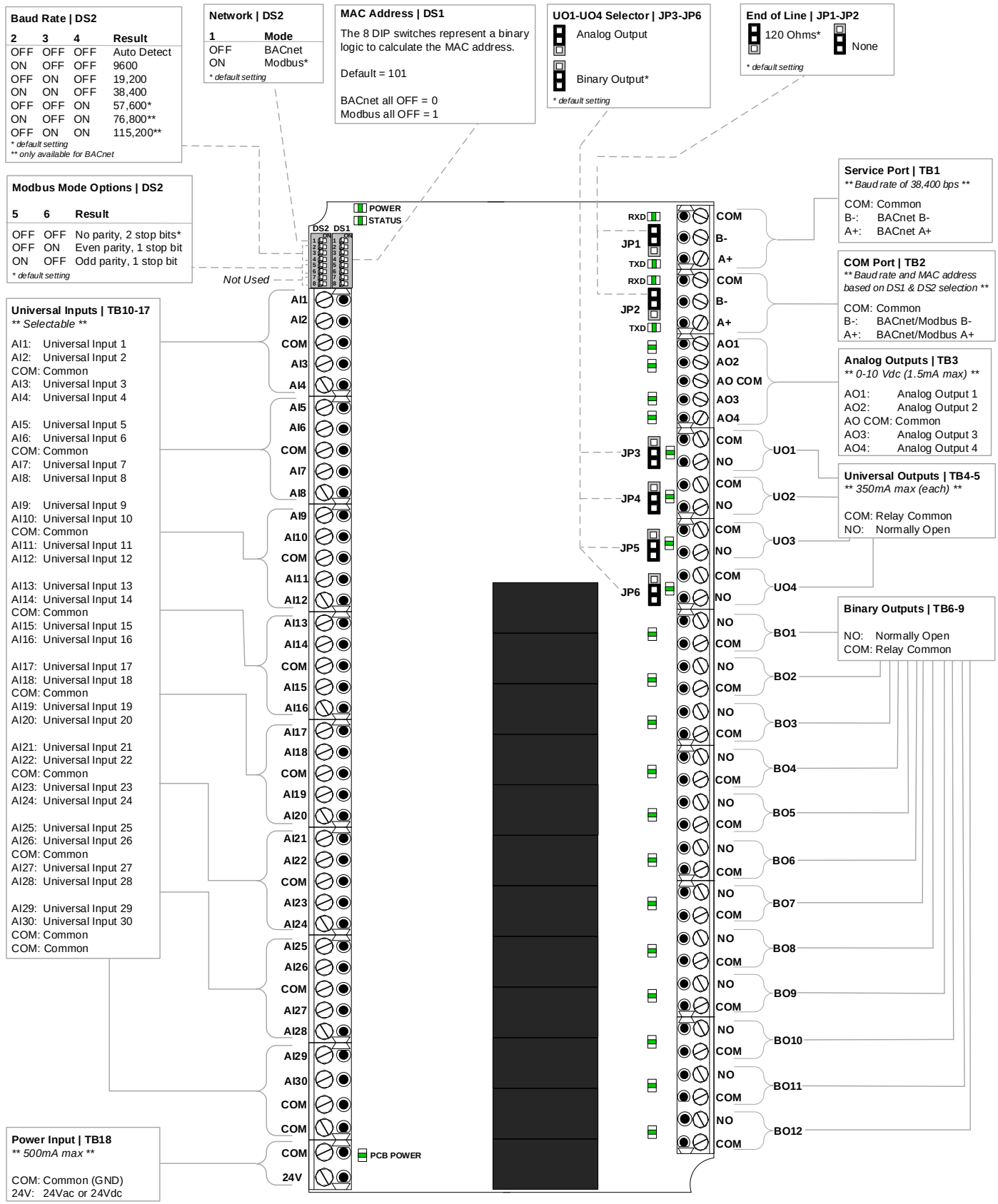
- Modbus @ 9600, 19200, 38400 or 57600 bps
- RTU Slave, 8 bits (configurable parity and stop bits)
- Connects to any Modbus master

## Technical Specifications

| Specifications | CMMB1020 |
|---|---|
| Input Voltage | 24 Vac/Vdc ±10% |
| Consumption | 12VA |
| Universal Inputs | **30** [0-10Vdc, 2-10Vdc, Thermistor, on/off (dry contact), 0-20mA, 4-20mA] / 16-bit resolution |
| Universal Outputs | **4** [0-10Vdc, on/off] / 12-bit resolution |
| Analog Outputs | **4** [0-10Vdc] / 12-bit resolution |
| Digital Relay Binary Outputs | **12** [normally open, independent common per relay, 5A resistive] |
| Service Port | BACnet® MS/TP @ 38400 bps |
| Communication Port | BACnet® MS/TP @ 9600, 19200, 38400, 76800 or 115000 bps (BAS-C).<br>Modbus RTU slave @ 9600, 19200, 38400 or 57600.<br>Selectable parity and stop bit configuration:<br>• No parity, 2 stop bit<br>• Even parity, 1 stop bit<br>• Odd parity, 1 stop bit |
| Communication Connections | 24 AWG twisted-shield cable (Belden 9841 or equivalent) |
| Electrical Connections | 0.8 $mm^2$ [18 AWG] minimum |
| Operational Temperature | 0ºC to 50ºC [32ºF to 122ºF] |
| Storage Temperature | -30ºC to 50ºC [-22ºF to 122ºF] |
| Relative Humidity | 5 to 95% non condensed |
| Weight | 0.6 kg [1.3 lb] |
| Dimensions<br><br>A = 9.18” / 233 mm<br>B = 4.93” / 125 mm<br>C = 2.27” / 58 mm |  |

## Connections and Configurations

Please note that all jumper settings must also be set to the same value through BACnet. Some additional configurations are only available through BACnet.



## FCC Compliance

**WARNING: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## MAC Address DIP Switch (DS1)

MAC address for BACnet and Modbus communication, are selectable by DIP switch DS1 using binary logic.

### BACnet

- Highest MAC address is 254.
- Default is all switches OFF = MAC address 0
- If you do not change device instance in program mode, it will be automatically modified according to the MAC address.

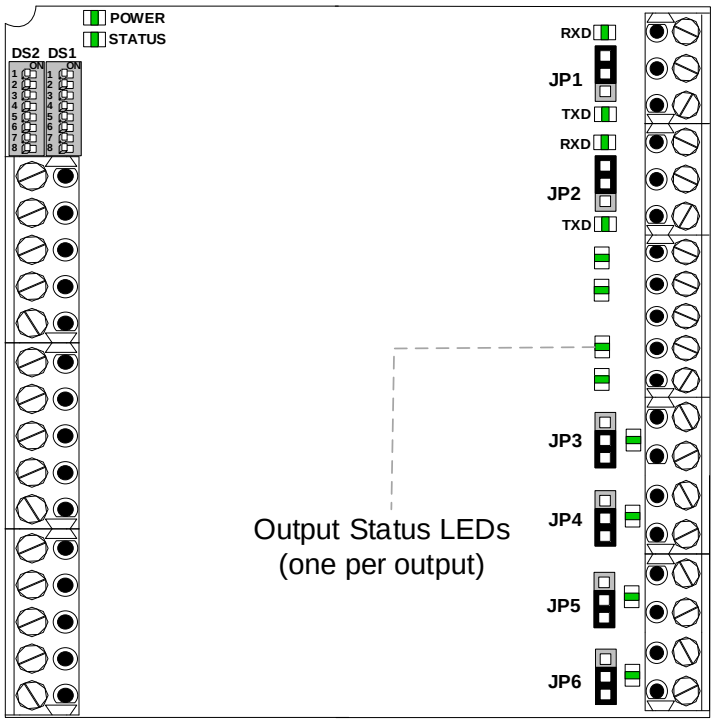
| **MAC Address** | DS.1 = **1** | DS.2 = **2** | DS.3 = **4** | DS.4 = **8** | DS.5 = **16** | DS.6 = **32** | DS.7 = **64** | DS.8 = **128** | **Default Device Instance** |
|---|---|---|---|---|---|---|---|---|---|
| 0 | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | 153000 |
| 1 | ON | OFF | OFF | OFF | OFF | OFF | OFF | OFF | 153001 |
| 2 | OFF | ON | OFF | OFF | OFF | OFF | OFF | OFF | 153002 |
| 3 | ON | ON | OFF | OFF | OFF | OFF | OFF | OFF | 153003 |
| 4 | OFF | OFF | ON | OFF | OFF | OFF | OFF | OFF | 153004 |
| … | … | … | … | … | … | … | … | … | … |
| 126 | OFF | ON | ON | ON | ON | ON | ON | OFF | 153126 |
| … | … | … | … | … | … | … | … | … | … |
| 254 | OFF | ON | ON | ON | ON | ON | ON | ON | 153254 |

### Modbus

- Highest MAC address is 247.
- Default is all switches OFF = MAC address 1.
- There is no device instance for Modbus.

| **MAC Address** | DS.1 = **1** | DS.2 = **2** | DS.3 = **4** | DS.4 = **8** | DS.5 = **16** | DS.6 = **32** | DS.7 = **64** | DS.8 = **128** |
|---|---|---|---|---|---|---|---|---|
| 1 | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| 1 | ON | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| 2 | OFF | ON | OFF | OFF | OFF | OFF | OFF | OFF |
| 3 | ON | ON | OFF | OFF | OFF | OFF | OFF | OFF |
| 4 | OFF | OFF | ON | OFF | OFF | OFF | OFF | OFF |
| … | … | … | … | … | … | … | … | … |
| 126 | OFF | ON | ON | ON | ON | ON | ON | OFF |
| … | … | … | … | … | … | … | … | … |
| 247 | ON | ON | ON | OFF | ON | ON | ON | ON |

## LEDs




**Power**
On = Input voltage normal
Off = No power

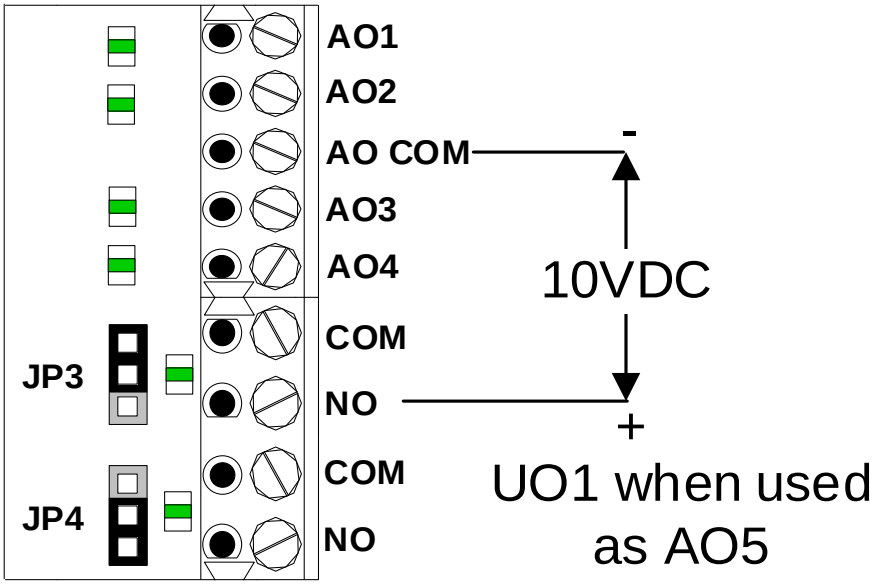
**Status**
Flashing = Normal operation (watchdog)

**RX/TX (BACnet)**
Flashing = Receiving (RX) and/or transmitting (TX) data.

**RX/TX (Modbus)**
Flashing = Receiving (RX) and/or transmitting (TX) data.

**Output Status**
On = Activated
Off = Deactivated
Analog = When Universal and Analog outputs are set to analog values (Vdc); the LED intensity corresponds to the output value. For example: At 10Vdc, the LED will be fully on. At 5Vdc, the LED will be at 50% intensity. At 0 Vdc, the LED will be off.

## UO in AO Mode – Wiring Example



# Modbus Network Conditions

## Modbus Registers and their Relevance Based on Different Input Modes

**Voltage/Current Mode:**

- When UI1 is configured as 0-10VDC or 4-20mA, the raw voltage/current value is seen on register 40012 (Universal Input 1 Reading).
- The value seen in register 40051 (Universal Input 1 Impedance or Linearization) will be based on the value that is entered by the user for registers 40118 (Universal Input 1 Minimum Linear Value) and 40119 (Universal Input 1 Maximum Linear Value).
- The register 40115 (Universal Input 1 Linear Value Scale) functions as scaling for the linearized value that you see for register 40051.
- The range of the sensor/input type (2-10V or 4-20mA) is set by registers 40116 (Universal Input 1 Minimum Voltage) and 40117 (Universal Input 1 Maximum Voltage) and the linearized value is read on register 40051.
- The register 40120 (Universal Input 1 Linear Value Bias) adds a bias to the value read on register 40051.
- The same is applicable for UI2 to UI30 with the registers corresponding to minimum and maximum voltage and/or linear values.

**Thermistor Mode:**

- When UI1 is configured as a temperature sensor, the raw resistance value is seen on register 40051 and the temperature value based on the type of sensor selected is available on register 40012.
- The user can perform calibration of the temperature value by adding a reading bias on register 40114. The value set here affects the reading on register 40012.
- The same is applicable for UI2 to UI30 with the registers corresponding to minimum and maximum voltage and/or linear values.

## UO1 to UO4 Operation

- UO1 to UO4 can be configured to operate as an analog output or a binary output using jumpers JP3 to JP6.
- When using UO1 to UO4 as BO13-BO16 through the jumpers, the user must ensure not to write on the registers for AO5-AO8 as it will interfere with the LED operation and the failsafe modes.
- The failsafe presets for the unused/unrouted outputs (AO5 to AO8) in this case must be set to the value required for safe operation of the equipment.
- When using UO1 to UO4 as AO5-AO8 through the jumpers, the user must ensure not to write on the bits for BO13-BO16 as it will interfere with the LED operation and the failsafe modes.
- The failsafe presets for the unused/unrouted outputs (AO5 to AO8) in this case must be set to the value required for safe operation of the equipment.

## Universal Input Mode Default Settings

| Cfg UI.x Mode (Reg. # for UI1: 112/40113) | Cfg UI.x Reading Bias (113/40114) | Cfg UI.xLinear Value Scale (114/40115) | Cfg UI.x Min Voltage (115/40116) | Cfg UI.x Max Voltage (116/40117) | Cfg UI.x Min Linear Value (117/40118) | Cfg UI.x Max Linear Value (118/40119) | Cfg UI.x Linear Value Bias (119/40120) |
|---|---|---|---|---|---|---|---|
| 1= "0-10V" | N/A | 1 | 0 | 10000 | 0 | 100 | 0 |
| 2= "4-20mA" | N/A | 1 | 0 | 20000 | 0 | 100 | 0 |
| 3= "Dry Contact" | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 4-8 = Thermistors | 0 | N/A | N/A | N/A | N/A | N/A | N/A |

## BACnet Objects Table

| ID[1] | Name | Description | Writable? | Range |
|---|---|---|---|---|
| **AI.1** | UI1 Reading | Universal input 1 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.2** | UI2 Reading | Universal input 2 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.3** | UI3 Reading | Universal input 3 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.4** | UI4 Reading | Universal input 4 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.5** | UI5 Reading | Universal input 5 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 302ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.6** | UI6 Reading | Universal input 6 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.7** | UI7 Reading | Universal input 7 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.8** | UI8 Reading | Universal input 8 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.9** | UI9 Reading | Universal input 9 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.10** | UI10 Reading | Universal input 10 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.11** | UI11 Reading | Universal input 11 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.12** | UI12 Reading | Universal input 12 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.13** | UI13 Reading | Universal input 13 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.14** | UI14 Reading | Universal input 14 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.15** | UI15 Reading | Universal input 15 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.16** | UI16 Reading | Universal input 16 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |

[1] ID is equal to ObjectType.Instance

| ID[1] | Name | Description | Writable? | Range |
|---|---|---|---|---|
| **AI.17** | UI17 Reading | Universal input 17 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.18** | UI18 Reading | Universal input 18 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.19** | UI19 Reading | Universal input 19 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.20** | UI20 Reading | Universal input 20 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.21** | UI21 Reading | Universal input 21 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.22** | UI22 Reading | Universal input 22 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.23** | UI23 Reading | Universal input 23 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.24** | UI24 Reading | Universal input 24 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.25** | UI25 Reading | Universal input 25 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.26** | UI26 Reading | Universal input 26 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.27** | UI27 Reading | Universal input 27 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.28** | UI28 Reading | Universal input 28 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.29** | UI29 Reading | Universal input 29 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AI.30** | UI30 Reading | Universal input 30 Reading | Out of service<br>COV Increment | 0 to 10Volt or -40 to 150ºC or<br>-40 to 212ºF or 0 to 20mA or 0 to 1<br>Resolution: 0.001Volt or 0.01ºC/0.02ºF or<br>0.001mA or 1 |
| **AO.1** | AO1 Voltage | Voltage of analog output 1 | Out of service<br>Present Value | 0 to 10 Volt \| Resolution 0.001 Volt |
| **AO.2** | AO2 Voltage | Voltage of analog output 2 | Out of service<br>Present Value | 0 to 10 Volt \| Resolution 0.001 Volt |
| **AO.3** | AO3 Voltage | Voltage of analog output 3 | Out of service<br>Present Value | 0 to 10 Volt \| Resolution 0.001 Volt |
| **AO.4** | AO4 Voltage | Voltage of analog output 4 | Out of service<br>Present Value | 0 to 10 Volt \| Resolution 0.001 Volt |
| **AO.5** | AO5 Voltage* | Voltage of analog output 5 | Out of service<br>Present Value | 0 to 10 Volt \| Resolution 0.001 Volt |
| **AO.6** | AO6 Voltage* | Voltage of analog output 6 | Out of service<br>Present Value | 0 to 10 Volt \| Resolution 0.001 Volt |

| ID[1] | Name | Description | Writable? | Range |
|---|---|---|---|---|
| **AO.7** | AO7 Voltage* | Voltage of analog output 7 | Out of service<br>Present Value | 0 to 10 Volt \| Resolution 0.001 Volt |
| **AO.8** | AO8 Voltage* | Voltage of analog output 8 | Out of service<br>Present Value | 0 to 10 Volt \| Resolution 0.001 Volt |
| **AV.1** | UI1 Impedance | Universal Input 1 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.2** | UI2 Impedance | Universal Input 2 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.3** | UI3 Impedance | Universal Input 3 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.4** | UI4 Impedance | Universal Input 4 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.5** | UI5 Impedance | Universal Input 5 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.6** | UI6 Impedance | Universal Input 6 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.7** | UI7 Impedance | Universal Input 7 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.8** | UI8 Impedance | Universal Input 8 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.9** | UI9 Impedance | Universal Input 9 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.10** | UI10 Impedance | Universal Input 10 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.11** | UI11 Impedance | Universal Input 11 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.12** | UI12 Impedance | Universal Input 12 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.13** | UI13 Impedance | Universal Input 13 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.14** | UI14 Impedance | Universal Input 14 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.15** | UI15 Impedance | Universal Input 15 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.16** | UI16 Impedance | Universal Input 16 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.17** | UI17 Impedance | Universal Input 17 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.18** | UI18 Impedance | Universal Input 18 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.19** | UI19 Impedance | Universal Input 19 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.20** | UI20 Impedance | Universal Input 20 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.21** | UI21 Impedance | Universal Input 21 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.22** | UI22 Impedance | Universal Input 22 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.23** | UI23 Impedance | Universal Input 23 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.24** | UI24 Impedance | Universal Input 24 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.25** | UI25 Impedance | Universal Input 25 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.26** | UI26 Impedance | Universal Input 26 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.27** | UI27 Impedance | Universal Input 27 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.28** | UI28 Impedance | Universal Input 28 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.29** | UI29 Impedance | Universal Input 29 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |
| **AV.30** | UI30 Impedance | Universal Input 30 Impedance | Out of service | 0 to 100% or 0 to 806800 ohms<br>Resolution: 1% or 1 ohms |

| ID[1] | Name | Description | Writable? | Range |
|---|---|---|---|---|
| **AV.31** | Cfg AO1 Failsafe Preset | Failsafe preset for analog output 1 | Out of service<br>Present Value | 0 to 10Volt \| Resolution: 0.001Volt |
| **AV.32** | Cfg AO2 Failsafe Preset | Failsafe preset for analog output 2 | Out of service<br>Present Value | 0 to 10Volt \| Resolution: 0.001Volt |
| **AV.33** | Cfg AO3 Failsafe Preset | Failsafe preset for analog output 3 | Out of service<br>Present Value | 0 to 10Volt \| Resolution: 0.001Volt |
| **AV.34** | Cfg AO4 Failsafe Preset | Failsafe preset for analog output 4 | Out of service<br>Present Value | 0 to 10Volt \| Resolution: 0.001Volt |
| **AV.35** | Cfg AO5 Failsafe Preset* | Failsafe preset for analog output 5 | Out of service<br>Present Value | 0 to 10Volt \| Resolution: 0.001Volt |
| **AV.36** | Cfg AO6 Failsafe Preset* | Failsafe preset for analog output 6 | Out of service<br>Present Value | 0 to 10Volt \| Resolution: 0.001Volt |
| **AV.37** | Cfg AO7 Failsafe Preset* | Failsafe preset for analog output 7 | Out of service<br>Present Value | 0 to 10Volt \| Resolution: 0.001Volt |
| **AV.38** | Cfg AO8 Failsafe Preset* | Failsafe preset for analog output 8 | Out of service<br>Present Value | 0 to 10Volt \| Resolution: 0.001Volt |
| **BO.1** | BO1 State | Binary Output 1 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.2** | BO2 State | Binary Output 2 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.3** | BO3 State | Binary Output 3 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.4** | BO4 State | Binary Output 4 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.5** | BO5 State | Binary Output 5 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.6** | BO6 State | Binary Output 6 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.7** | BO7 State | Binary Output 7 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.8** | BO8 State | Binary Output 8 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.9** | BO9 State | Binary Output 9 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.10** | BO10 State | Binary Output 10 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.11** | BO11 State | Binary Output 11 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.12** | BO12 State | Binary Output 12 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.13** | BO13 State* | Binary Output 13 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.14** | BO14 State* | Binary Output 14 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.15** | BO15 State* | Binary Output 15 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BO.16** | BO16 State* | Binary Output 16 State | Out of service<br>Present Value | 0 = Open<br>1 = Closed |
| **BV.1** | Cfg Temperature Units | Select the unit system to use on the device. | Present Value | 0= Celsius<br>1= Fahrenheit |
| **MSV.0** | Cfg IO Profile | Select input/output profile. | Out of service<br>Present Value | 1= Custom<br>2= Profile 1<br>3= Profile 2<br>4= Profile 3 |
| **MSV.1** | Cfg UI1 Mode | Select universal input 1 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |

| ID[1] | Name | Description | Writable? | Range |
|---|---|---|---|---|
| **MSV.2** | Cfg UI2 Mode | Select universal input 2 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.3** | Cfg UI3 Mode | Select universal input 3 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.4** | Cfg UI4 Mode | Select universal input 4 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.5** | Cfg UI5 Mode | Select universal input 5 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.6** | Cfg UI6 Mode | Select universal input 6 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.7** | Cfg UI7 Mode | Select universal input 7 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.8** | Cfg UI8 Mode | Select universal input 8 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.9** | Cfg UI9 Mode | Select universal input 9 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.10** | Cfg UI10 Mode | Select universal input 10 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |

| ID[1] | Name | Description | Writable? | Range |
|---|---|---|---|---|
| **MSV.11** | Cfg UI11 Mode | Select universal input 11 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.12** | Cfg UI12 Mode | Select universal input 12 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.13** | Cfg UI13 Mode | Select universal input 13 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.14** | Cfg UI14 Mode | Select universal input 14 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.15** | Cfg UI15 Mode | Select universal input 15 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.16** | Cfg UI16 Mode | Select universal input 16 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.17** | Cfg UI17 Mode | Select universal input 17 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.18** | Cfg UI18 Mode | Select universal input 18 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.19** | Cfg UI19 Mode | Select universal input 19 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |

| ID[1] | Name | Description | Writable? | Range |
|---|---|---|---|---|
| **MSV.20** | Cfg UI20 Mode | Select universal input 20 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.21** | Cfg UI21 Mode | Select universal input 21 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.22** | Cfg UI22 Mode | Select universal input 22 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.23** | Cfg UI23 Mode | Select universal input 23 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.24** | Cfg UI24 Mode | Select universal input 24 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.25** | Cfg UI25 Mode | Select universal input 25 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.26** | Cfg UI26 Mode | Select universal input 26 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.27** | Cfg UI27 Mode | Select universal input 27 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.28** | Cfg UI28 Mode | Select universal input 28 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |

| ID[1] | Name | Description | Writable? | Range |
|---|---|---|---|---|
| **MSV.29** | Cfg UI29 Mode | Select universal input 29 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.30** | Cfg UI30 Mode | Select universal input 30 mode | Out of service<br>Present Value | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K_ NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 |
| **MSV.31** | Cfg AO1 Failsafe Mode | Selected analog output 1 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Preset |
| **MSV.32** | Cfg AO2 Failsafe Mode | Selected analog output 2 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Preset |
| **MSV.33** | Cfg AO3 Failsafe Mode | Selected analog output 3 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Preset |
| **MSV.34** | Cfg AO4 Failsafe Mode | Selected analog output 4 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Preset |
| **MSV.35** | Cfg AO5 Failsafe Mode* | Selected analog output 5 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Preset |
| **MSV.36** | Cfg AO6 Failsafe Mode* | Selected analog output 6 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Preset |
| **MSV.37** | Cfg AO7 Failsafe Mode* | Selected analog output 7 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Preset |
| **MSV.38** | Cfg AO8 Failsafe Mode* | Selected analog output 8 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Preset |
| **MSV.39** | Cfg BO1 Failsafe Mode | Selected binary output 1 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.40** | Cfg BO2 Failsafe Mode | Selected binary output 2 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.41** | Cfg BO3 Failsafe Mode | Selected binary output 3 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.42** | Cfg BO4 Failsafe Mode | Selected binary output 4 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.43** | Cfg BO5 Failsafe Mode | Selected binary output 5 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.44** | Cfg BO6 Failsafe Mode | Selected binary output 6 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.45** | Cfg BO7 Failsafe Mode | Selected binary output 7 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.46** | Cfg BO8 Failsafe Mode | Selected binary output 8 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.47** | Cfg BO9 Failsafe Mode | Selected binary output 9 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.48** | Cfg BO10 Failsafe Mode | Selected binary output 10 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.49** | Cfg BO11 Failsafe Mode | Selected binary output 11 failsafe mode | Out of service<br>Present Value | 1= Last State<br>2= Open<br>3= Closed |

| ID[1] | Name | Description | Writable? | Range |
|---|---|---|---|---|
| **MSV.50** | Cfg BO12 Failsafe Mode | Selected binary output 12 failsafe mode | Out of service Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.51** | Cfg BO13 Failsafe Mode** | Selected binary output 13 failsafe mode | Out of service Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.52** | Cfg BO14 Failsafe Mode** | Selected binary output 14 failsafe mode | Out of service Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.53** | Cfg BO15 Failsafe Mode** | Selected binary output 15 failsafe mode | Out of service Present Value | 1= Last State<br>2= Open<br>3= Closed |
| **MSV.54** | Cfg BO16 Failsafe Mode** | Selected binary output 16 failsafe mode | Out of service Present Value | 1= Last State<br>2= Open<br>3= Closed |

** Only available when JP3 - JP6 jumpers (UO1 - UO4 selector) are set to AO5 - AO8.*
*** Only available when JP3 - JP6 jumpers (UO1 - UO4 selector) are set to BO13 - BO16.*

## Modbus Registers

- Register address
  - As per protocol base (base 0); for PLC add 1 to protocol base.
  - As per holding register (base 40001)
- Functions :
  - 03 Read Holding Register
  - 06 Write Single Register
  - 16 Write Multiple Registers
- Error Codes :
  - 02 Illegal Data Address
  - 03 Illegal Value
  - 06 Slave Device Busy
- W = Writable register, RO = read only.
- No Real number in Modbus register, use scale to calculate real number. Register = Real number * Scale => Real number = Register / Scale. Scale could be 1, 10 or 100
- Attention when writing a register that contains a bit string. If bit is writable (conditional or not), the write will always be accepted. If bit is reserved or not writable, the write will be ignored and will keep its actual state.
- Use READ-MODIFY-WRITE sequence.

| Protocol Base | Holding Register | Description | Data Type | Units/Values | | Writable | Default Value |
|---|---|---|---|---|---|---|---|
| 0 | 4000**1** | MAC Address | Unsigned<br>*Scale 1* | [1..247]<br>* MAC address is 1 if all DIP switches of DS1 are OFF. | | W | 101 |
| 1 | 4000**2** | Firmware Version | Unsigned<br>*Scale 100* | 1.00 | | RO | |
| 2 | 4000**3** | Serial Number (characters 0 & 1) | ASCII | MSB = char 0, LSB = char 1 | | RO | |
| 3 | 4000**4** | Serial Number (characters 2 & 3) | ASCII | MSB = char 2, LSB = char 3 | | RO | |
| 4 | 4000**5** | Serial Number (characters 4 & 5) | ASCII | MSB = char 4, LSB = char 5 | | RO | |
| 5 | 4000**6** | Serial Number (characters 6 & 7) | ASCII | MSB = char 6, LSB = char 7 | | RO | |
| 6 | 4000**7** | Serial Number (characters 8 & 9) | ASCII | MSB = char 8, LSB = char 9 | | RO | |
| 7 | 4000**8** | Serial Number (characters 10 & 11) | ASCII | MSB = char 10, LSB = char 11 | | RO | |
| 8 | 4000**9** | Serial Number (characters 12 & 13) | ASCII | MSB = char 12, LSB = char 13 | | RO | |
| 9 | 400**10** | Serial Number (characters 14 & 15) | ASCII | MSB = char 14, LSB = char 15 | | RO | |
| 10 | 400**11** | System Status | Unsigned | 0 = Operational<br>1 = Operational-read-only<br>2 = download-required | 3 = download-in-progress<br>4 = non-operational<br>5 = backup-in-progress | RO | |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 11 | 400**12** | Universal Input 1 Reading | 0-10V: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0-10Volt,<br>4-20mA: Type: Unsigned, Scale:1000, Unit: mA, Range: 0-20 mA<br>10K NTC Carel, 10K Type 2/3A1/NTC(Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -40 - 150 ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -40 - 212 ºF<br>DI: Type: Unsigned, Scale:1, No Unit, Range: 0-1 | RO | 0 |
| 12 | 400**13** | Universal Input 2 Reading | | | | 0 |
| 13 | 400**14** | Universal Input 3 Reading | | | | 0 |
| 14 | 400**15** | Universal Input 4 Reading | | | | 0 |
| 15 | 400**16** | Universal Input 5 Reading | | | | 0 |
| 16 | 400**17** | Universal Input 6 Reading | | | | 0 |
| 17 | 400**18** | Universal Input 7 Reading | | | | 0 |
| 18 | 400**19** | Universal Input 8 Reading | | | | 0 |
| 19 | 400**20** | Universal Input 9 Reading | | | | 0 |
| 20 | 400**21** | Universal Input 10 Reading | | | | 0 |
| 21 | 400**22** | Universal Input 11 Reading | | | | 0 |
| 22 | 400**23** | Universal Input 12 Reading | | | | 0 |
| 23 | 400**24** | Universal Input 13Reading | | | | 0 |
| 24 | 400**25** | Universal Input 14 Reading | | | | 0 |
| 25 | 400**26** | Universal Input 15 Reading | | | | 0 |
| 26 | 400**27** | Universal Input 16 Reading | | | | 0 |
| 27 | 400**28** | Universal Input 17 Reading | | | | 0 |
| 28 | 400**29** | Universal Input 18 Reading | | | | 0 |
| 29 | 400**30** | Universal Input 19 Reading | | | | 0 |
| 30 | 400**31** | Universal Input 20 Reading | | | | 0 |
| 31 | 400**32** | Universal Input 21 Reading | | | | 0 |
| 32 | 400**33** | Universal Input 22 Reading | | | | 0 |
| 33 | 400**34** | Universal Input 23 Reading | | | | 0 |
| 34 | 400**35** | Universal Input 24 Reading | | | | 0 |
| 35 | 400**36** | Universal Input 25 Reading | | | | 0 |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 36 | 400**37** | Universal Input 26 Reading | 0-10V: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0-10Volt,<br>4-20mA: Type: Unsigned, Scale:1000, Unit: mA, Range: 0-20 mA<br>10K NTC Carel, 10K Type 2/3A1/NTC(Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -40 - 150 ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -40 - 212 ºF<br>DI: Type: Unsigned, Scale:1, No Unit, Range: 0-1 | | RO | 0 |
| 37 | 400**38** | Universal Input 27 Reading | | | | 0 |
| 38 | 400**39** | Universal Input 28 Reading | | | | 0 |
| 39 | 400**40** | Universal Input 29 Reading | | | | 0 |
| 40 | 400**41** | Universal Input 30 Reading | | | | 0 |
| 41 | 400**42** | Analog Output 1 Voltage | Unsigned<br>Scale 1000 | Unit: Volt (V), Range: 0V to10V, *Value x 1000 (e.g. 2V = 2000)*<br>** AO5 to AO8 Voltage can only be commanded when JP3 - JP6 jumpers (UO1 - UO4 selector) are set to AO5 - AO8.* | W | 0V |
| 42 | 400**43** | Analog Output 2 Voltage | | | | 0V |
| 43 | 400**44** | Analog Output 3 Voltage | | | | 0V |
| 44 | 400**45** | Analog Output 4 Voltage | | | | 0V |
| 45 | 400**46** | Analog Output 5 Voltage* | | | | 0V |
| 46 | 400**47** | Analog Output 6 Voltage* | | | | 0V |
| 47 | 400**48** | Analog Output 7 Voltage* | | | | 0V |
| 48 | 400**49** | Analog Output 8 Voltage* | | | | 0V |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 49 | 400**50** | Binary Output States** | Bit String | **B0: Binary Output 1 State** *0 = Open, 1 = Closed*<br>**B1: Binary Output 2 State** *0 = Open, 1 = Closed*<br>**B2: Binary Output 3 State** *0 = Open, 1 = Closed*<br>**B3: Binary Output 4 State** *0 = Open, 1 = Closed*<br>**B4: Binary Output 5 State** *0 = Open, 1 = Closed*<br>**B5: Binary Output 6 State** *0 = Open, 1 = Closed*<br>**B6: Binary Output 7 State** *0 = Open, 1 = Closed*<br>**B7: Binary Output 8 State** *0 = Open, 1 = Closed*<br>**B8: Binary Output 9 State** *0 = Open, 1 = Closed*<br>**B9: Binary Output 10 State** *0 = Open, 1 = Closed*<br>**B10: Binary Output 11 State** *0 = Open, 1 = Closed*<br>**B11: Binary Output 12 State** *0 = Open, 1 = Closed*<br>**B12: Binary Output 13 State**** *0 = Open, 1 = Closed*<br>**B13: Binary Output 14 State**** *0 = Open, 1 = Closed*<br>**B14: Binary Output 15 State**** *0 = Open, 1 = Closed*<br>**B15: Binary Output 16 State**** *0 = Open, 1 = Closed*<br>*** B12 to B15 can only be commanded when JP3 - JP6 jumpers (UO1 - UO4 selector) are set to BO13 - BO16.* | W | 0 |
| 50 | 400**51** | Universal Input 1 Impedance or Linearization (0) | | | | N/A |
| 51 | 400**52** | Universal Input 1 Impedance or Linearization (1) | | | | N/A |
| 52 | 400**53** | Universal Input 2 Impedance or Linearization (0) | | | | N/A |
| 53 | 400**54** | Universal Input 2 Impedance or Linearization (1) | | | | N/A |
| 54 | 400**55** | Universal Input 3 Impedance or Linearization (0) | | | | N/A |
| 55 | 400**56** | Universal Input 3 Impedance or Linearization (1) | | | | N/A |
| 56 | 400**57** | Universal Input 4 Impedance or Linearization (0) | | | | N/A |
| 57 | 400**58** | Universal Input 4 Impedance or Linearization (1) | | | | N/A |
| 58 | 400**59** | Universal Input 5 Impedance or Linearization (0) | | | | N/A |
| 59 | 400**60** | Universal Input 5 Impedance or Linearization (1) | | | | N/A |
| 60 | 400**61** | Universal Input 6 Impedance or Linearization (0) | | | | N/A |

**0-10V, 4-20mA:**
Type: Unsigned, Scale: Depends on values in Linear Value Scale of corresponding UI
Unit: %, Range: Depends on values in Minimum and Maximum Linear Value of the UI

**Thermistors -** 10K NTC Carel, 10K Type 2/3A1/NTC(Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:
Type: Unsigned, Scale:1, Unit: Ohms, Range: 0-806800 Ohms

RO

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 61 | 400**62** | Universal Input 6 Impedance or Linearization (1) | **0-10V, 4-20mA:**<br>Type: Unsigned, Scale: Depends on values in Linear Value Scale of corresponding UI<br>Unit: %, Range: Depends on values in Minimum and Maximum Linear Value of the UI<br><br>**Thermistors -** 10K NTC Carel, 10K Type 2/3A1/NTC(Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Unsigned, Scale:1, Unit: Ohms, Range: 0-806800 Ohms | | RO | N/A |
| 62 | 400**63** | Universal Input 7 Impedance or Linearization (0) | | | | N/A |
| 63 | 400**64** | Universal Input 7 Impedance or Linearization (1) | | | | N/A |
| 64 | 400**65** | Universal Input 8 Impedance or Linearization (0) | | | | N/A |
| 65 | 400**66** | Universal Input 8 Impedance or Linearization (1) | | | | N/A |
| 66 | 400**67** | Universal Input 9 Impedance or Linearization (0) | | | | N/A |
| 67 | 400**68** | Universal Input 9 Impedance or Linearization (1) | | | | N/A |
| 68 | 400**69** | Universal Input 10 Impedance or Linearization (0) | | | | N/A |
| 69 | 400**70** | Universal Input 10 Impedance or Linearization (1) | | | | N/A |
| 70 | 400**71** | Universal Input 11 Impedance or Linearization (0) | | | | N/A |
| 71 | 400**72** | Universal Input 11 Impedance or Linearization (1) | | | | N/A |
| 72 | 400**73** | Universal Input 12 Impedance or Linearization (0) | | | | N/A |
| 73 | 400**74** | Universal Input 12 Impedance or Linearization (1) | | | | N/A |
| 74 | 400**75** | Universal Input 13 Impedance or Linearization (0) | | | | N/A |
| 75 | 400**76** | Universal Input 13 Impedance or Linearization (1) | | | | N/A |
| 76 | 400**77** | Universal Input 14 Impedance or Linearization (0) | | | | N/A |
| 77 | 400**78** | Universal Input 14 Impedance or Linearization (1) | | | | N/A |
| 78 | 400**79** | Universal Input 15 Impedance or Linearization (0) | | | | N/A |
| 79 | 400**80** | Universal Input 15 Impedance or Linearization (1) | | | | N/A |
| 80 | 400**81** | Universal Input 16 Impedance or Linearization (0) | | | | N/A |
| 81 | 400**82** | Universal Input 16 Impedance or Linearization (1) | | | | N/A |
| 82 | 400**83** | Universal Input 17 Impedance or Linearization (0) | | | | N/A |
| 83 | 400**84** | Universal Input 17 Impedance or Linearization (1) | | | | N/A |
| 84 | 400**85** | Universal Input 18 Impedance or Linearization (0) | | | | N/A |
| 85 | 400**86** | Universal Input 18 Impedance or Linearization (1) | | | | N/A |
| 86 | 400**87** | Universal Input 19 Impedance or Linearization (0) | | | | N/A |
| 87 | 400**88** | Universal Input 19 Impedance or Linearization (1) | | | | N/A |
| 88 | 400**89** | Universal Input 20 Impedance or Linearization (0) | | | | N/A |
| 89 | 400**90** | Universal Input 20 Impedance or Linearization (1) | | | | N/A |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 90 | 400**91** | Universal Input 21 Impedance or Linearization (0) | **0-10V, 4-20mA:**<br>Type: Unsigned, Scale: Depends on values in Linear Value Scale of corresponding UI<br>Unit: %, Range: Depends on values in Minimum and Maximum Linear Value of the UI<br><br>**Thermistors -** 10K NTC Carel, 10K Type 2/3A1/NTC(Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Unsigned, Scale:1, Unit: Ohms, Range: 0-806800 Ohms | | RO | N/A |
| 91 | 400**92** | Universal Input 21 Impedance or Linearization (1) | | | | N/A |
| 92 | 400**93** | Universal Input 22 Impedance or Linearization (0) | | | | N/A |
| 93 | 400**94** | Universal Input 22 Impedance or Linearization (1) | | | | N/A |
| 94 | 400**95** | Universal Input 23 Impedance or Linearization (0) | | | | N/A |
| 95 | 400**96** | Universal Input 23 Impedance or Linearization (1) | | | | N/A |
| 96 | 400**97** | Universal Input 24 Impedance or Linearization (0) | | | | N/A |
| 97 | 400**98** | Universal Input 24 Impedance or Linearization (1) | | | | N/A |
| 98 | 400**99** | Universal Input 25 Impedance or Linearization (0) | | | | N/A |
| 99 | 40**100** | Universal Input 25 Impedance or Linearization (1) | | | | N/A |
| 100 | 40**101** | Universal Input 26 Impedance or Linearization (0) | | | | N/A |
| 101 | 40**10**2 | Universal Input 26 Impedance or Linearization (1) | | | | N/A |
| 102 | 40**103** | Universal Input 27 Impedance or Linearization (0) | | | | N/A |
| 103 | 40**104** | Universal Input 27 Impedance or Linearization (1) | | | | N/A |
| 104 | 40**105** | Universal Input 28 Impedance or Linearization (0) | | | | N/A |
| 105 | 40**106** | Universal Input 28 Impedance or Linearization (1) | | | | N/A |
| 106 | 40**107** | Universal Input 29 Impedance or Linearization (0) | | | | N/A |
| 107 | 40**108** | Universal Input 29 Impedance or Linearization (1) | | | | N/A |
| 108 | 40**109** | Universal Input 30 Impedance or Linearization (0) | | | | N/A |
| 109 | 40**110** | Universal Input 30 Impedance or Linearization (1) | | | | N/A |
| 110 | 40**111** | Temperature Units | Unsigned | 1 = Celsius \| 2 = Fahrenheit | W | 1 |
| 111 | 40**112** | Input/Output Profile | Unsigned | 1 = Custom<br>2 = Profile 1<br>3 = Profile 2<br>4 = Profile 3 | W | 2 |
| 112 | 40**113** | Universal Input 1 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 6 |
| 113 | 40**114** | Universal Input 1 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC(Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | 0ºC |
| 114 | 40**115** | Universal Input 1 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 115 | 40**116** | Universal Input 1 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 116 | 40**117** | Universal Input 1 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 117 | 40**118** | Universal Input 1 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 118 | 40**119** | Universal Input 1 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 119 | 40**120** | Universal Input 1 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 120 | 40**121** | Universal Input 2 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 6 |
| 121 | 40**122** | Universal Input 2 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC(Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | 0ºC |
| 122 | 40**123** | Universal Input 2 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |
| 123 | 40**124** | Universal Input 2 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 124 | 40**125** | Universal Input 2 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 125 | 40**126** | Universal Input 2 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 126 | 40**127** | Universal Input 2 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 127 | 40**128** | Universal Input 2 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 128 | 40**129** | Universal Input 3 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 6 |
| 129 | 40**130** | Universal Input 3 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | 0ºC |
| 130 | 40**131** | Universal Input 3 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |
| 131 | 40**132** | Universal Input 3 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 132 | 40**133** | Universal Input 3 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 133 | 40**134** | Universal Input 3 Minimum Linear Value | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 134 | 40**135** | Universal Input 3 Maximum Linear Value | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 135 | 40**136** | Universal Input 3 Linear Value Bias | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 136 | 40**137** | Universal Input 4 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 6 |
| 137 | 40**138** | Universal Input 4 Reading Bias | | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | W | 0ºC |
| 138 | 40**139** | Universal Input 4 Linear Value Scale | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | W | N/A |
| 139 | 40**140** | Universal Input 4 Minimum Voltage | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | W | N/A |
| 140 | 40**141** | Universal Input 4 Maximum Voltage | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | W | N/A |
| 141 | 40**142** | Universal Input 4 Minimum Linear Value | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 142 | 40**143** | Universal Input 4 Maximum Linear Value | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 143 | 40**144** | Universal Input 5 Linear Value Bias | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 144 | 40**145** | Universal Input 5 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 6 |
| 145 | 40**146** | Universal Input 5 Reading Bias | | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | W | 0ºC |
| 146 | 40**147** | Universal Input 5 Linear Value Scale | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | W | N/A |
| 147 | 40**148** | Universal Input 5 Minimum Voltage | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | W | N/A |
| 148 | 40**149** | Universal Input 5 Maximum Voltage | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | W | N/A |
| 149 | 40**150** | Universal Input 5 Minimum Linear Value | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 150 | 40**151** | Universal Input 5 Maximum Linear Value | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 151 | 40**152** | Universal Input 5 Linear Value Bias | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 152 | 40**153** | Universal Input 6 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 6 |
| 153 | 40**154** | Universal Input 6 Reading Bias | | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | W | 0ºC |
| 154 | 40**155** | Universal Input 6 Linear Value Scale | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | W | N/A |
| 155 | 40**156** | Universal Input 6 Minimum Voltage | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | W | N/A |
| 156 | 40**157** | Universal Input 6 Maximum Voltage | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | W | N/A |
| 157 | 40**158** | Universal Input 6 Minimum Linear Value | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 158 | 40**159** | Universal Input 6 Maximum Linear Value | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 159 | 40**160** | Universal Input 6 Linear Value Bias | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 160 | 40**161** | Universal Input 7 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 6 |
| 161 | 40**162** | Universal Input 7 Reading Bias | | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | W | 0ºC |
| 162 | 40**163** | Universal Input 7 Linear Value Scale | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | W | N/A |
| 163 | 40**164** | Universal Input 7 Minimum Voltage | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | W | N/A |
| 164 | 40**165** | Universal Input 7 Maximum Voltage | | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | W | N/A |
| 165 | 40**166** | Universal Input 7 Minimum Linear Value | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |
| 166 | 40**167** | Universal Input 7 Maximum Linear Value | | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | W | N/A |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 167 | 40**168** | Universal Input 7 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 168 | 40**169** | Universal Input 8 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 6 |
| 169 | 40**170** | Universal Input 8 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | 0ºC |
| 170 | 40**171** | Universal Input 8 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |
| 171 | 40**172** | Universal Input 8 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 172 | 40**173** | Universal Input 8 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 173 | 40**174** | Universal Input 8 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 174 | 40**175** | Universal Input 8 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 175 | 40**176** | Universal Input 8 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 176 | 40**177** | Universal Input 9 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 6 |
| 177 | 40**178** | Universal Input 9 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | 0ºC |
| 178 | 40**179** | Universal Input 9 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |
| 179 | 40**180** | Universal Input 9 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 180 | 40**181** | Universal Input 9 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 181 | 40**182** | Universal Input 9 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 182 | 40**183** | Universal Input 9 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 183 | 40**184** | Universal Input 9 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 184 | 40**185** | Universal Input 10 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 3 |
| 185 | 40**186** | Universal Input 10 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 186 | 40**187** | Universal Input 10 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |
| 187 | 40**188** | Universal Input 10 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 188 | 40**189** | Universal Input 10 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 189 | 40**190** | Universal Input 10 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 190 | 40**191** | Universal Input 10 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 191 | 40**192** | Universal Input 10 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 192 | 401**93** | Universal Input 11 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 3 |
| 193 | 40**194** | Universal Input 11 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 194 | 40**195** | Universal Input 11 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |
| 195 | 40**196** | Universal Input 11 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 196 | 40**197** | Universal Input 11 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 197 | 40**198** | Universal Input 11 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 198 | 40**199** | Universal Input 11 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 199 | 40**200** | Universal Input 11 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 200 | 40**201** | Universal Input 12 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 3 |
| 201 | 40**202** | Universal Input 12 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 202 | 40**203** | Universal Input 12 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |
| 203 | 40**204** | Universal Input 12 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 204 | 40**205** | Universal Input 12 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 205 | 40**206** | Universal Input 12 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 206 | 40**207** | Universal Input 12 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 207 | 40**208** | Universal Input 12 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 208 | 40**209** | Universal Input 13 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 3 |
| 209 | 40**210** | Universal Input 13 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 210 | 40**211** | Universal Input 13 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |
| 211 | 40**212** | Universal Input 13 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 212 | 40**213** | Universal Input 13 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 213 | 40**214** | Universal Input 13 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 214 | 40**215** | Universal Input 13 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 215 | 40**216** | Universal Input 13 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 216 | 40**217** | Universal Input 14 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 3 |
| 217 | 40**218** | Universal Input 14 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 218 | 40**219** | Universal Input 14 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |
| 219 | 40**220** | Universal Input 14 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 220 | 40**221** | Universal Input 14 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 221 | 40**222** | Universal Input 14 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 222 | 40**223** | Universal Input 14 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 223 | 40**224** | Universal Input 14 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 224 | 40**225** | Universal Input 15 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>N/A | W | 3 |
| 225 | 40**226** | Universal Input 15 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 226 | 40**227** | Universal Input 15 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 227 | 40**228** | Universal Input 15 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 228 | 40**229** | Universal Input 15 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 229 | 40**230** | Universal Input 15 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 230 | 40**231** | Universal Input 15 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 231 | 40**232** | Universal Input 15 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 232 | 40**233** | Universal Input 16 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 3 |
| 233 | 40**234** | Universal Input 16 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 234 | 40**235** | Universal Input 16 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |
| 235 | 40**236** | Universal Input 16 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 236 | 40**237** | Universal Input 16 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 237 | 40**238** | Universal Input 16 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 238 | 40**239** | Universal Input 16 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 239 | 40**240** | Universal Input 16 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 240 | 40**241** | Universal Input 17 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 3 |
| 241 | 40**242** | Universal Input 17 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 242 | 40**243** | Universal Input 17 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | N/A |
| 243 | 40**244** | Universal Input 17 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 244 | 40**245** | Universal Input 17 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | N/A |
| 245 | 40**246** | Universal Input 17 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 246 | 40**247** | Universal Input 17 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |
| 247 | 40**248** | Universal Input 17 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | N/A |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 248 | 40**249** | Universal Input 18 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 249 | 40**250** | Universal Input 18 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 250 | 40**251** | Universal Input 18 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 251 | 40**252** | Universal Input 18 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 252 | 40**253** | Universal Input 18 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 253 | 40**254** | Universal Input 18 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 254 | 40**255** | Universal Input 18 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 255 | 40**256** | Universal Input 18 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 256 | 40**257** | Universal Input 19 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 257 | 40**258** | Universal Input 19 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 258 | 40**259** | Universal Input 19 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 259 | 40**260** | Universal Input 19 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 260 | 40**261** | Universal Input 19 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 261 | 40**262** | Universal Input 19 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 262 | 40**263** | Universal Input 19 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 263 | 40**264** | Universal Input 19 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 264 | 40**265** | Universal Input 20 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 265 | 40**266** | Universal Input 20 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 266 | 40**267** | Universal Input 20 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 267 | 40**268** | Universal Input 20 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 268 | 40**269** | Universal Input 20 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 269 | 40**270** | Universal Input 20 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 270 | 40**271** | Universal Input 20 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 271 | 40**272** | Universal Input 20 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 272 | 40**273** | Universal Input 21 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 273 | 40**274** | Universal Input 21 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 274 | 40**275** | Universal Input 21 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 275 | 40**276** | Universal Input 21 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 276 | 40**277** | Universal Input 21 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 277 | 40**278** | Universal Input 21 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 278 | 40**279** | Universal Input 21 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 279 | 40**280** | Universal Input 21 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 280 | 40**281** | Universal Input 22 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 281 | 40**282** | Universal Input 22 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 282 | 40**283** | Universal Input 22 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 283 | 40**284** | Universal Input 22 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 284 | 40**285** | Universal Input 22 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 285 | 40**286** | Universal Input 22 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 286 | 40**287** | Universal Input 22 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 287 | 40**288** | Universal Input 22 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 288 | 40**289** | Universal Input 23 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 289 | 40**290** | Universal Input 23 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 290 | 40**291** | Universal Input 23 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 291 | 40**292** | Universal Input 23 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 292 | 40**293** | Universal Input 23 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 293 | 40**294** | Universal Input 23 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 294 | 40**295** | Universal Input 23 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 295 | 40**296** | Universal Input 23 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 296 | 40**297** | Universal Input 24 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 297 | 40**298** | Universal Input 24 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 298 | 40**299** | Universal Input 24 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 299 | 40**300** | Universal Input 24 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 300 | 40**301** | Universal Input 24 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 301 | 40**302** | Universal Input 24 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 302 | 40**303** | Universal Input 24 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 303 | 40**304** | Universal Input 24 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 304 | 40**305** | Universal Input 25 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 305 | 40**306** | Universal Input 25 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 306 | 40**307** | Universal Input 25 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 307 | 40**308** | Universal Input 25 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 308 | 40**309** | Universal Input 25 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 309 | 40**310** | Universal Input 25 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 310 | 40**311** | Universal Input 25 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 311 | 40**312** | Universal Input 25 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 312 | 40**313** | Universal Input 26 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 313 | 40**314** | Universal Input 26 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 314 | 40**315** | Universal Input 26 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 315 | 40**316** | Universal Input 26 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 316 | 40**317** | Universal Input 26 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 317 | 40**318** | Universal Input 26 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 318 | 40**319** | Universal Input 26 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 319 | 40**320** | Universal Input 26 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 320 | 40**321** | Universal Input 27 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 321 | 40**322** | Universal Input 27 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 322 | 40**323** | Universal Input 27 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 323 | 40**324** | Universal Input 27 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 324 | 40**325** | Universal Input 27 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 325 | 40**326** | Universal Input 27 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 326 | 40**327** | Universal Input 27 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 327 | 40**328** | Universal Input 27 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 328 | 40**329** | Universal Input 28 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 329 | 40**330** | Universal Input 28 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 330 | 40**331** | Universal Input 28 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 331 | 40**332** | Universal Input 28 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 332 | 40**333** | Universal Input 28 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 333 | 40**334** | Universal Input 28 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 334 | 40**335** | Universal Input 28 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 335 | 40**336** | Universal Input 28 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 336 | 40**337** | Universal Input 29 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 337 | 40**338** | Universal Input 29 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 338 | 40**339** | Universal Input 29 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 339 | 403**40** | Universal Input 29 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 340 | 40**341** | Universal Input 29 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 341 | 40**342** | Universal Input 29 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 342 | 40**343** | Universal Input 29 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 343 | 40**344** | Universal Input 29 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 344 | 40**345** | Universal Input 30 Mode | Unsigned | 1= 0-10V<br>2= 4-20mA<br>3= Dry Contact<br>4= 10K Type3/G/4A1<br>5= 10K Type2/3A1/NTC(Danfoss)<br>6= 10K NTC Carel<br>7= 20K Type6A1<br>8= 30K Type6A1 | W | 2 |
| 345 | 40**346** | Universal Input 30 Reading Bias | 10K NTC Carel, 10K Type 2/3A1/NTC (Danfoss), 20K Type 6AI, 30K Type 6AI, 10K Type 3/G/4A1:<br>Type: Signed, Scale:100, Unit: ºC, Range: -327.68 - 327.67ºC<br>Type: Signed, Scale:100, Unit: ºF, Range: -557.82 - 621.08 ºF | | W | N/A |
| 346 | 40**347** | Universal Input 30 Linear Value Scale | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: No Unit, Range: 0.001, 0.01, 0.1, 1 or 10 | | W | 1 |
| 347 | 40**348** | Universal Input 30 Minimum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 0V |
| 348 | 40**349** | Universal Input 30 Maximum Voltage | 0-10V, 4-20mA: Type: Unsigned, Scale:1000, Unit: Volt, Range: 0.00 - 65.535V | | W | 20V |
| 349 | 40**350** | Universal Input 30 Minimum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 350 | 40**351** | Universal Input 30 Maximum Linear Value | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 100mA |
| 351 | 40**352** | Universal Input 30 Linear Value Bias | 0-10V: Type: Signed, Scale: 1, Unit: Volt, Range: -32768 - 32767V<br>4-20mA: Type: Signed, Scale: 1, Unit: mA, Range: -32768 - 32767mA | | W | 0mA |
| 352 | 40**353** | Failsafe Timeout | Unsigned<br>*Scale 1* | Unit: Seconds (sec), Range: 0 sec to 65535 sec, *Value x 1 (e.g. 2* sec = *2)* | W | 60 |
| 353 | 40**354** | Analog Output 1 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Preset | W | 2 |
| 354 | 40**355** | Analog Output 1 Preset | Unsigned<br>*Scale 1000* | Unit: Volt (V), Range: 0V to 10V, *Value x 1000 (e.g. 2V = 2000)* | W | 0V |
| 355 | 40**356** | Analog Output 2 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Preset | W | 2 |
| 356 | 40**357** | Analog Output 2 Preset | Unsigned<br>*Scale 1000* | Unit: Volt (V), Range: 0V to 10V, *Value x 1000 (e.g. 2V = 2000)* | W | 0V |
| 357 | 40**358** | Analog Output 3 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Preset | W | 2 |
| 358 | 40**359** | Analog Output 3 Preset | Unsigned<br>*Scale 1000* | Unit: Volt (V), Range: 0V to 10V, *Value x 1000 (e.g. 2V = 2000)* | W | 0V |
| 359 | 40**360** | Analog Output 4 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Preset | W | 2 |
| 360 | 40**361** | Analog Output 4 Preset | Unsigned<br>*Scale 1000* | Unit: Volt (V), Range: 0V to 10V, *Value x 1000 (e.g. 2V = 2000)* | W | 0V |
| 361 | 40**362** | Analog Output 5 Failsafe Mode*** | Unsigned | 1 = Last State \| 2 = Preset | W | 2 |
| 362 | 40**363** | Analog Output 5 Preset*** | Unsigned<br>*Scale 1000* | Unit: Volt (V), Range: 0V to 10V, *Value x 1000 (e.g. 2V = 2000)* | W | 0V |
| 363 | 40**364** | Analog Output 6 Failsafe Mode*** | Unsigned | 1 = Last State \| 2 = Preset | W | 2 |
| 364 | 40**365** | Analog Output 6 Preset*** | Unsigned<br>*Scale 1000* | Unit: Volt (V), Range: 0V to 10V, *Value x 1000 (e.g. 2V = 2000)* | W | 0V |

| Protocol Base | Holding Register | Description | Data Type | Units/Values | Writable | Default Value |
|---|---|---|---|---|---|---|
| 365 | 40**366** | Analog Output 7 Failsafe Mode*** | Unsigned | 1 = Last State \| 2 = Preset | W | 2 |
| 366 | 40**367** | Analog Output 7 Preset*** | Unsigned *Scale 1000* | Unit: Volt (V), Range: 0V to 10V, *Value x 1000 (e.g. 2V = 2000)* | W | 0V |
| 367 | 40**368** | Analog Output 8 Failsafe Mode*** | Unsigned | 1 = Last State \| 2 = Preset | W | 2 |
| 368 | 40**369** | Analog Output 8 Preset*** | Unsigned *Scale 1000* | Unit: Volt (V), Range: 0V to 10V, *Value x 1000 (e.g. 2V = 2000)* | W | 0V |
| 369 | 40**370** | Binary Output 1 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 370 | 40**371** | Binary Output 2 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 371 | 40**372** | Binary Output 3 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 372 | 40**373** | Binary Output 4 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 373 | 40**374** | Binary Output 5 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 374 | 40**375** | Binary Output 6 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 375 | 40**376** | Binary Output 7 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 376 | 40**377** | Binary Output 8 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 377 | 40**378** | Binary Output 9 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 378 | 40**379** | Binary Output 10 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 379 | 40**380** | Binary Output 11 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 380 | 40**381** | Binary Output 12 Failsafe Mode | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 381 | 40**382** | Binary Output 13 Failsafe Mode**** | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 382 | 40**383** | Binary Output 14 Failsafe Mode**** | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 383 | 40**384** | Binary Output 15 Failsafe Mode**** | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |
| 384 | 40**385** | Binary Output 16 Failsafe Mode**** | Unsigned | 1 = Last State \| 2 = Open \| 3 = Closed | W | 2 |

*** Only available when JP3 - JP6 jumpers (UO1 - UO4 selector) are set to AO5 - AO8.*
**** Only available when JP3 - JP6 jumpers (UO1 - UO4 selector) are set to BO13 - BO16.*

Recycling at end of life: please return this product to your Neptronic local distributor for recycling. If you need to find the nearest Neptronic authorized distributor, please consult www.neptronic.com.