**Manufacturer: Crestron Germany** 

Model: Modbus/TCP

**Device Type: Modbus Devices** 

GENERAL INFORMATION:  SIMPLWINDOWS NAME:  Modbus-TCP FC4 Read Input Register  CATEGORY:  HVAC  VERSION:  V1.3  SUMMARY:  Read Input Register from a Modbus system.  Modbus is a generic communications protocol. It allows a group of addressable informations to be accessed by the Crestron system. There are digital colls, which have two states - on and off. There are also analog register, which allow 16 bit numbers to be accessed. Some informations/values are read only, while others are read/write. The Input register and Discrete Inputs are read only. The holding register and Colis are read-divinted. While others are read-divinted in the module uses the TCP format. Modbus communicates one fide float the first is 20.2. But the Port is configurable in the Modbus device.  Each device on a Modbus system is uniquely addressed by its IP-Address. Them Input register and colis are read-divinted in the Modbus device is reachable over a TCP/IP Client with his IP-Address. Them Input is a single parameter field for the unit identifier (unit id), Integer. This unit identifier is just needed, when the Modbus device is reachable over a Modbus/TCP the unit id has to be 255 for broadcast and is reachable over the IP-Address for Modbus/TCP. If the Modbus device is read-bride over the IP-Address field which specify the number of register and start address has to be the value 5 and number of addresses has to be the value 6. Of course you can just use one register 5-10, start address has to be the value 5 and number of addresses for sand. For example, you want to read register 5-10, start address has to be the value 5 and number of addresses. The not used Signals can be comment out.  The two serial Signals From, Processor and To, Processor have to be connected to the Modbus-TCP Processor and To, Processor have to be connected to the Modbus-TCP Processor and To, Processor have to be connected to the Modbus-TCP Processor and To, Processor have to be connected to the Modbus-TCP Processor and To, Processor have to be connected to the Modbus	CENERAL INCORMATION:							
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**Manufacturer: Crestron Germany** 

**Model: Modbus/TCP** 

**Device Type: Modbus Devices** 

VENDOR FIRMWARE:

The correct IP-Address has to be set to the corresponding device.

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RJ45

CONTROL:		
Poll_all	D	Pulse to poll the specified input register.
From_Processor	S	Serial Signal that has to be connected to one of the From_Processor Outputs of the Modbus-TCP Processor module. Every used module have to be connected to one From_Processor[1-100] Signal of the Processor.

FEEDBACK:		
Register_value_fb[1-100]	D	Digital Feedback that indicates after a poll Pulse the register value.
To_Processor	S	Serial Signal that has to be connected to the To_Processor Input of the Modbus-TCP Processor module.

PARAMETERS:		
unit id	I	Integer_Parameter to set the unit identifier. This is just then relevant, if you use a Modbus/RTU System connected to the Modbus/TCP over a Gateway. In a Modbus/TCP System the device will be reached over the IP-Address and have to be the value 255.
start address	I	Integer_Parameter to set the desired start address of the input register to read.
number of addresses	1	Integer_Parameter to set the desired number of input register starting with start address. This have to be the same number like the number of used register_values_fb Signals.

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**MODIFICATIONS:** 

OPS USED FOR TESTING: MC3: 1.011.0023

SIMPL WINDOWS USED FOR TESTING: 4.0.2

CRESTRON DB USED FOR TESTING: 51.05.007.00

**DEVICE DB USED FOR TESTING:** 65.05.003.00

SAMPLE PROGRAM: Modbus-TCP Demo v1.3.smw

REVISION HISTORY: Modbus-TCP Demo v1.2

## Version 1.3:

Bugfix for the Analog 32 64 bit Serial Converter. The Converter converts the 2 or 4 Analog 16bit Values to early so that the two high bytes are already set, but the low bytes are still 0 or have the last value. In the Analog 32 64 bit Serial Converter you are now able to Convert discrete with a Digital Pulse, so you have to use a Serial/Analog OneShot with the last

Analog Value which comes out of the Modbus Module.

## Version 1.2:

Now you are able to convert 2xAnalog Values to one Serial 32bit value for visualization or 4xAnalog Values to one Serial 64bit Value for visualization. Therefor you need the Analog 32 64 bit Serial Converter v1.0.