Stuttgart M8 Controller

User Manual

Table of Contents

Introduction

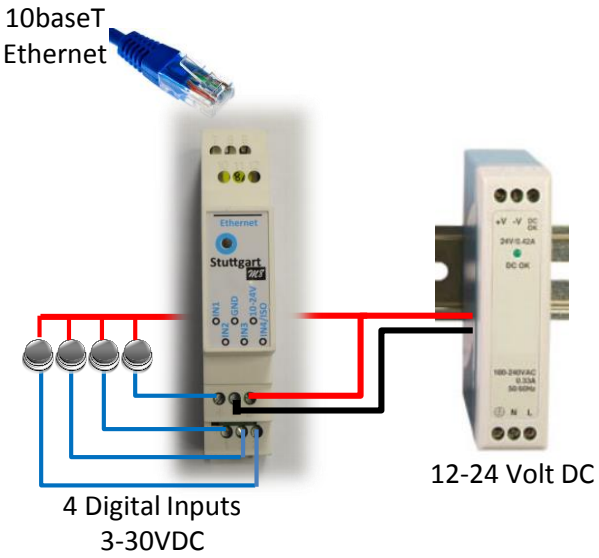
Welcome to the Stuttgart M8 controller.

This guide will guide you through the configuration and setup of the product.

There are different options and versions of the product. Please identify the features that you have purchased.

Connecting Your Controller

The front view of your controller has the following markings indicating connections.



There are 4 Digital Inputs. A voltage present on the input will activate the input.

The Blue LED will flash once per second to indicate that the device is online. The Link and Data LED on the Ethernet connector will indicate Link and Data status.

The system requires approximately 1.2 Watt of power or 0.1 Amp at 12V or 0.05 Amp at 24V.

Factory Defaults

You can reset the factory defaults by using a sharp object to push the DEFAULTS button just behind the Ethernet connector. The button has to be held in on power-up.

The default IP address is 10.10.0.1

Jumper

When the jumper is inserted as shown above, it will configure the device with 4 digital inputs. The GND signal for the power will be shared with the GND signal for the 4 digital inputs.

When the jumper is inserted in the left 2 pins, the device will be configured with 3 digital inputs. In this configuration all the inputs are fully optically isolated from the rest of the system. Input 4 will become the GND_ISO (Isolated Ground) for all 3 digital inputs.

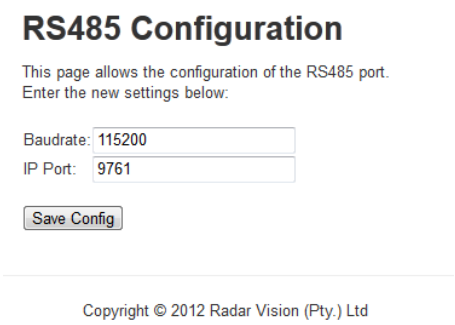
Web Interface

Browsing to the Stuttgart IP address (default is 10.10.0.1) on port 80, will return a web interface as below:

The counters count up for every Digital input state change from low to high or from high to low.

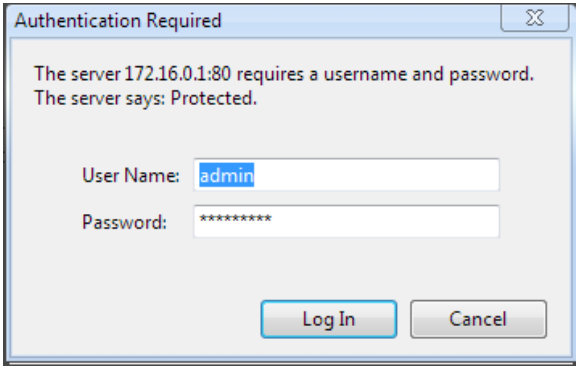
The State Change Flag is set when the state change from low to high or high to low. To clear the flag, you need to use SNMP to read the value.

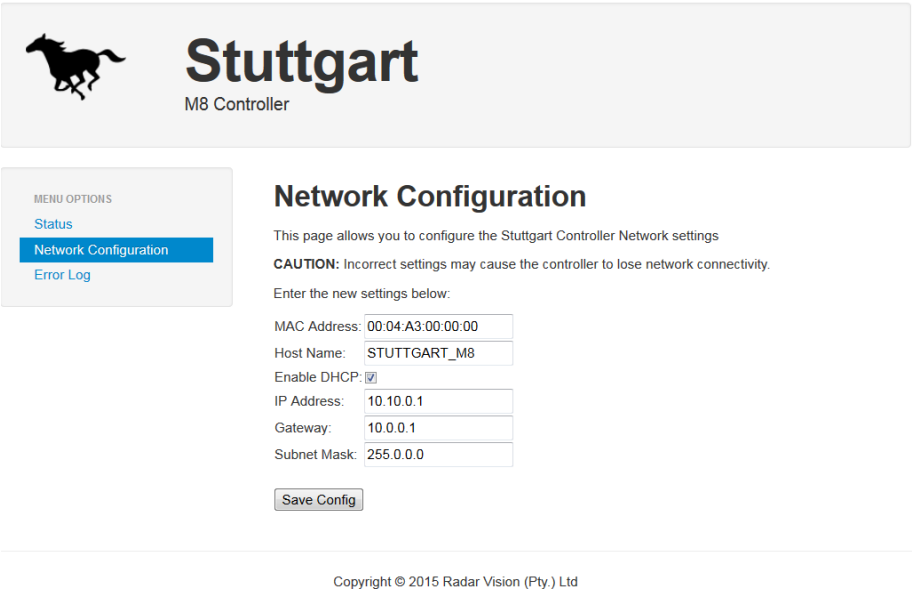
If fitted with a UART, the settings can be configured under the UART configuration page.



Network Configuration

To change the network configuration, you have to login using ‘admin’ as username and ‘stuttgart’ as password.

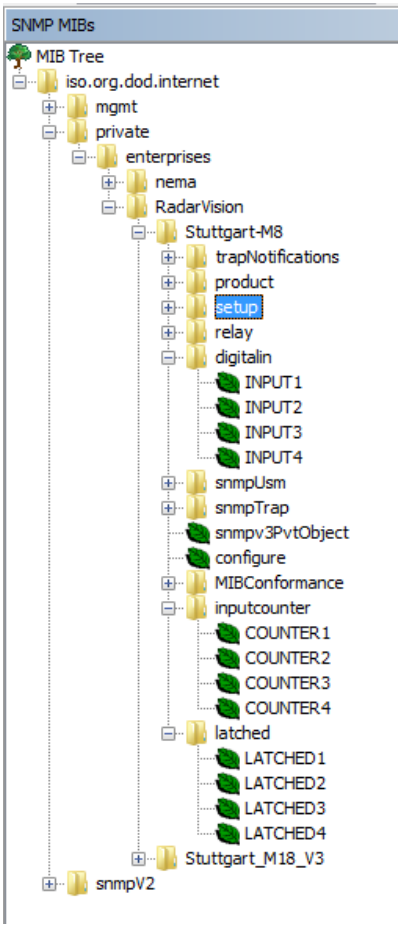




Be careful in changing the MAC address, because the MAC address has to be unique in order for Layer 2 routing to be possible, in other words 2 devices cannot exist on the same network with the same MAC address. When new firmware is loaded the MAC address may be reset. Ensure that you write down the MAC address before firmware update in order to restore it after update. Note that the MAC address can be programmed only once. If the last two numbers in the MAC address are other than 00:00, the MAC address will not be configurable.

SNMP

Basic MIB tree is indicated below. The product is provided with a MIB.



You can download a MIB browser from http://www.ireasoning.com/

Firmware Update

The firmware can be updated using Tiny FTP. TFTP will be enabled in Windows XP. In Windows Vista and above press the Windows button and type “turn windows features on or off” to get to the features options. Scroll down the list to TFTP client en check the checkbox.

With TFTP enabled, use the command prompt to go to the folder where the firmware is located.

Then type “**tftp 10.10.0.1 put Stuttgart_Field_Controller_V1.00.hex**”

Substitute the IP address with the correct one.

Technical Specifications

Characteristic	Min	Max	Units	Conditions
Storage Temperature	-25	105	°C	
Operating Temperature	-10	+70	°C	*Extended temperature available*
Digital Outputs				
Relay 1-3 outputs contact rating	0.1	3	A	*Designed contact ratings*
Relay 4 output contact rating	1	30	A	*Designed contact ratings*
Digital Inputs				
Input voltage	4	30	VDC	
Analog Inputs				
Input impedance	480		kohm	
Input voltage limits	-40	+40	VDC	
Input voltage measurement (AN1,2,3)	0.1	10	VDC	
Current measurement (AN2 & AN3)	4	20	mA	
RS485				
Input voltage limits	-7	12	V	
Output current		60	mA	
RS232				
Input voltage limits	-25	25	V	
Battery Protection				
Relay 4 Connector wire size	0.2	4	mm^2	*Multi stranded cable*
Relay 4 Connector wire size	0.2	6	mm^2	*Single core cable*
Power Supply				
Input Voltage	10	30	V	*Reverse input protected*
Power Consumption		4.1	W	*Without wireless*
Wireless				
WiFi Output Power		10	dBm	
Zigbee Output Power		19	dBm	*At antenna connector*