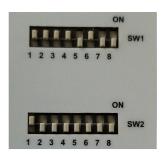
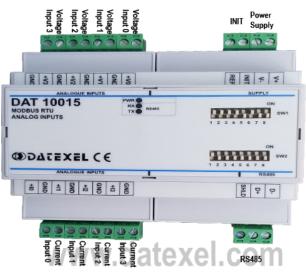
DATEXEL LLC

DAT10015 Voltage and Current to Modbus RTU

The DAT10015 can be set up with DIP Switches or Software.

- 1. SW1, set 1,2,3,4 and 6 to the ON position.
- 2. SW2, set 1 to the ON position.
- 3. This DIP Switch setting is RTU, Parity None, Baud rate 38400.





- 1. Connect 24 Vdc to V+ and V-.
- 2. Connect RS485 to D+ and D-.
- 3. Connect a Voltage between 0-10Vdc on Voltage Input 0 and a Current on Current Input 0.
- 4. Power up the DAT10015 Modbus RTU Voltage and Current input Slave.

It is advisable to use the DAT3580 to connect the DAT10015 to the PC. The advantage of using the DAT3580 is that it will isolate your PC from the DAT10015. The DAT3580 options are USB, Ethernet and RS232. If the DAT3580USB version is used, install the USB drivers. If the DAT3580MBTCP or the DAT3580GW are used, make sure the Ethernet parameters are compatible with the net and transmission of data over port 502 is allowed.

Set Up the PC.

- 1. Download the 3000-10000 Software from www.datexel.com download page.
- 2. Close all other software.
- 3. UnZIP the Modbus_3000_10000_setup software.
- 4. Run the 3000-10000 software.
- 5. To start the software click the English version.

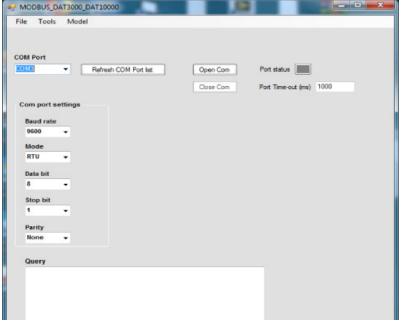
www.datexel.com

Call 561 779 5660 for technical support.



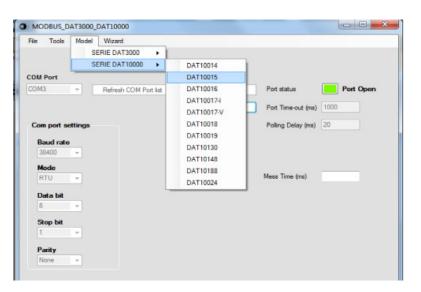
Set Up Communication.

- 1. The software should automatically select the correct communication port. It is possible to override the communication port or refresh if you change the physical port.
- Select the communication port setting as per the DIP Switches Baud rate 38400bps, RTU, Data Bit 8, Stop Bit1, Parity None. Click Open communication. The Port Status will change to green.



Selecting the DAT10015 Voltage and Current to Modbus RTU.

- 1. The green light only indicates the port is open. Even if the settings are incorrect the light will turn green.
- 2. Select Model and the drop down navigation will appear.
- 3. Select DAT10015.



Setting the address of the DAT10015 Modbus Slave.

- 1. The address should be 1, if not change to 1, unless the DIP Switches have been changed.
- 2. Click "Read data" (Single poll).
- 3. The screen should now display the below screen.
- 4. If there is a function error, no CRC match, check Baud rate, RS485 connection or Modbus Slave Address.
- 5. This needs to be fixed before further progress.
- 6. Also, it is advisable to recheck the DIP Switch settings.

O DAT10015				
DAT10015 - 4 mA and Volt Inputs	Address to connect	Read data (Single poll)	Continuous Read	Stop on Error
Input type Set ch = Measures CH0 Disabled - Write	Syncr.	Type 1 here for address 1.		Comm. parameters Address 0 Write Baud-rate 1200 -
CH1 Disabled -				Parity None N*Bit 8
CH2 Disabled -				Mode RTU - Write
CH3 Disabled -		á	This area only populates after communication is	Name Write
CH4 Disabled -		2	successful.	FW vers.
CH5 Disabled -				WDT(x0.5 s) Write
CH6 Disabled -				Delay(x1 ms) Write
CH7 Disabled •			l	Wdt_en Wdt_ev Pup_ev
Scale				

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Setting the analog input on the DAT10015.

- 1. The DAT10015 has 4 dedicated channels to Voltage and Current hence you do not have to select the input type.
- 2. Click the Read data or Continuous Read button.

O DAT10015				540	
DAT10015 - 4 mA and		ddress to connect 1	Read data (Single poll)	Continuous Read	Comm. parameters
Input type Set ch = M	leasures Syncr.	Write	 Type 1 here for address 1 		Address 1 Write
CHO Vot v Write 0.	0.000				Baud-rate 38400 Panty None 1 stop bit
CH1 Volt - 0.	0.000				N* Bt 8
CH2 Vot - 0.	0.000				Mode RTU - Write
CH3 Volt - 0.	0.000			This is the Comm port settings for the DAT10015	Name AD15 Write
CH4 mA 0.	0.000			DIP Switches.	FW vers. 5502
CH5 mA - 0.	0.000				WDT(x0.5 s) 10 Write
СН6 mA 👻 0.	0.000				Delay(x1 ms) 1 Write
СН7 mA 🔹 0.	0.000				Wdt_en Wdt_ev Pup_ev
Scale					
					-

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Reading the analog input on the DAT10015.

1. The measured value should now be displayed under the Measures label.

O DAT10015	-	
DAT10015 - 4 mA and Volt Inputs	Address to connect 1 Read data (Single poll) Continuous Read	Stop on Error
		Comm. parameters
Input type Set ch = Measures	Syncr. Write	Address 1 Write
CH0 Volt Volt Voltage Reading	0.000	Baud-rate 38400 -
CH1 Vot - 0.000	0.000	Parity None 1 stop bit 💌
		N* Bit 8 👻
CH2 Vot • 0.000	0.000	Mode RTU 🕶 Write
CH3 Vot - 0.000	0.000	Name A015 Write
CH4 mA - 4.741 Current	0.000	FW vers. 5502
CH5 mA CH5 mA	0.000	WDT(x0.5 s) 10 Write
CH6 mA • 0.000	0.000	Delay(x1 ms) 1 Write
CH7 mA • 0.000	0.000	Wdt_en Wdt_ev Pup_ev
Scale		

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Explanation of Communication parameters for Modbus Slave DAT3024.

Address

The actual address of the DAT10015 connected.

Baud rate The actual baud rate of the DAT10015 connected.

Parity The actual parity mode of the DAT10015 connected.

N°Bit The actual number of bit selection of the DAT10015 connected.

Mode The actual Modbus modality (RTU or ASCII) set for the DAT10015 connected

Name The string read from the DAT3024 of 4 ASCII characters used to name it example DAT10015.

FW Vers The firmware version read from the DAT10015.

WTD (x0.5) The watchdog time read from the DAT10015 is in steps of 0.5 seconds.

Delay (x1 ms) The delay time between the reception of a query and transmission of the response. Expressed as steps of 1 millisecond.

Button Wdt_en Indicates if the bit to enable the watchdog time of the device has been set: red indicates the bit is set, grey indicates the bit is not set.

Button Wdt_ev Indicates if the watchdog timer event has occurred: red if the event occurs, grey if the event has not occurred. This condition is also signaled by the blinking of the led "PWR" of the device and the safe state of the digital outputs.

Button Pup_ev Indicates if the Power up event has occurred: red if the event has occurred, grey if the event has not occurred. This condition is also signaled by the power-up state of the digital outputs.

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