

# RTCU-D4 MAX

## Remote Telemetry and Control Unit

The RTCU-D4 MAX offers an impressive list of features and possibilities. The product is a unique combination of a powerful Programmable Logic Controller (PLC) and a GSM phone tightly connected in a single easy programmable unit. The RTCU-D4 MAX product provides the user friendly answer to your remote monitoring, remote control, surveillance and datalogging needs.



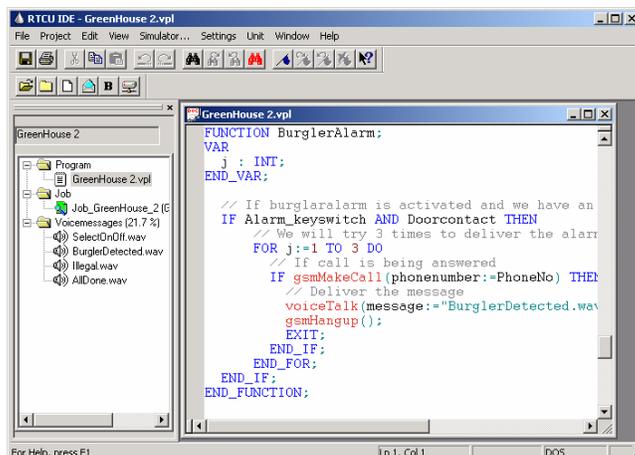
The RTCU-D4 MAX product allows rapid development of custom specified applications combining control / monitoring / datalogging with advanced communication techniques such as voice / DTMF interaction (voice response systems), alarm/messages send to / from the unit as SMS messages or via data-transfer directly to / from a Windows application. The product includes a user-friendly Integrated Development Environment (RTCU IDE) running under Windows where the complete application is developed and finally transferred to the unit via a standard serial port, or alternatively using the GSM data transfer capability available as a standard feature. .

The unit is programmed in a PLC language called VPL based on the ST language from the international standard IEC1131-3. This language is very easy to learn and can be compared to BASIC / PASCAL but with a number of facilities to allow easy development of PLC-like applications. Voice-messages are also created within the environment by the use of a simple microphone and a soundcard in the PC. The RTCU IDE environment also includes a very sophisticated simulator so that the application can be executed and debugged under Windows - before being transferred to the physical unit !. From the VPL language all the resources on the platform is easily accessible, such as: send / receive SMS-messages, receive / initiate GSM calls, voice, DTMF interaction, Realtime clock, datalogging as well as low level functions such as Timers, up / down counters, edge triggers etc. As an option a support package for data-transfer is available that allows easy data-transfer to / from the unit from within a standard Windows application.

***Stay ahead and choose the Logic IO RTCU-D4 MAX product when dealing with advanced and flexible GSM based control/monitoring/datalogging applications!***

### Some of the application areas includes:

- ❖ Surveillance of industrial equipment
- ❖ Remote site control and data acquisition
- ❖ Dataloggers
- ❖ Process monitoring and reporting
- ❖ Alarm / Security systems
- ❖ *your application....*



*The RTCU-IDE Integrated Development Environment for the RTCU, is an easy-to-use program for all aspects in the development of applications for the RTCU. The RTCU-IDE contains a broad range of features, such as project control, comprehensive online help, built-in syntax highlighting editor, code generating wizard, voice recorder etc. A built-in simulator, enables complete simulation of all features on the actual RTCU: GSM phone, SMS messaging, LCD Display, Analog / Digital I/O etc. A remote update feature allows the application developer to download new versions of a program or voice messages to a remote RTCU, via a simple telephone modem connected to the PC. Together, all of these features enables the user to cut development time to a minimum.*

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### Key features:

- ❖ 12 Digital inputs
- ❖ 12 Digital outputs, max 1 Amp/channel
- ❖ 4 Analog inputs (0..5V)
- ❖ 4 Analog outputs (0..5V)
- ❖ GSM Phone for voice, data, SMS, fax, email etc.
- ❖ Real Time Clock with battery backup
- ❖ 3 User defined dipswitches
- ❖ 2 User defined Bi-color LED indicators
- ❖ Monitors supply voltage
- ❖ RS232 Serial port (110 bps to 115 Kbps)
- ❖ Standard SIM card reader
- ❖ Standard 2x16 characters backlit LCD-Display.
- ❖ 128 Kbyte storage for VPL programs
- ❖ 4 Kbyte storage for user variables
- ❖ Upto 110 seconds storage for voicemessages
- ❖ Maximum of 128 separate voicemessages
- ❖ 512 Kbyte for datalogging
- ❖ 8 Kbyte FRAM for fast access, no write endurance limit.
- ❖ 16 simultaneous VPL jobs operating in one of two priorities
- ❖ Optional RS485 multidrop network

Analog inputs	Min		Max			
	0	-	+5	VDC	Resolution is 10 bits. All inputs are protected against transients and lowpass filtered.	
Analog outputs	Min		Max			
	0	-	+5	VDC	Resolution is 10 bits. All outputs are protected against transients and lowpass filtered.	
Digital inputs	Min	Typ	Max			
	Logic "High"	8	10	40	VDC	All inputs are protected against transients and lowpass filtered
	Logic "Low"	-5	-	5	VDC	
Digital outputs	Min	Typ	Max			
	5	-	34	VDC	All outputs are protected against short-circuit.	
	-	-	1000	mA		
Power supply	Min	Typ	Max			
Operating Voltage	8	-	36	VDC	Protected against wrong polarity, self healing fuse	
Unit Active with GSM off		75		mA	At 24 VDC supply voltage	
Unit Active with GSM on		80	150	mA		
Unit in Sleep with GSM off		50		mA		
Storage temperature	-40	-	+90	°C	For mounting on standard DIN rail (EN50022).	
Operating temperature (According to GSM 11.10 specification)	-20	-	+55	°C	SMA-Female connector for Dual band (900/1800 MHz) GSM antenna.	
Restricted operation (deviations from the GSM specification may occur)	-29	-	+70	°C		
Humidity (non condensing)	5	-	90	%		
Weight	0.3			Kg		
External dimensions	W 157 x H 86 x D 58 mm			Standard M36 DIN enclosure		
Ingress Protection (IP)	IP20					
Approvals	EN-50081-1 Emission EN-61000-6-2 Immunity			Unit is CE Approved		

Technical data subject to change

**For more information:**

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