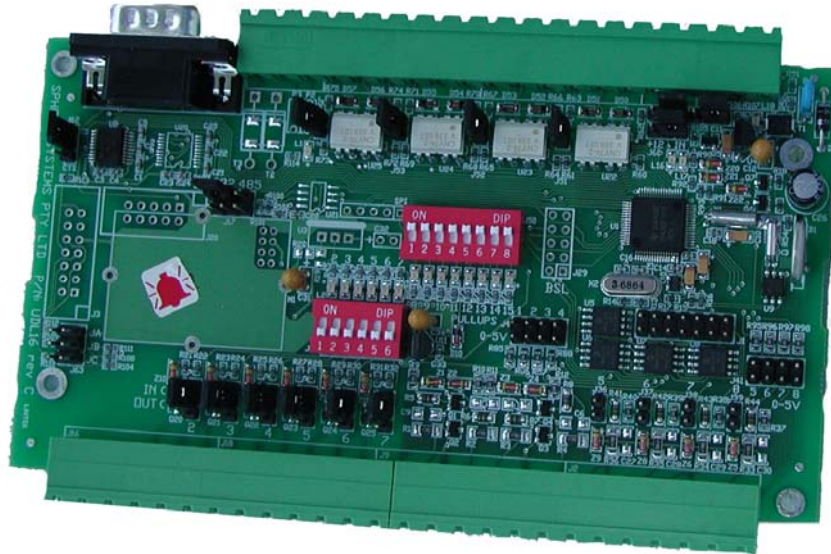


Wudl/Wudl-PT

Wide Universal Data Logger



Remote Data Logging, Alarm & Control

8/7 analogue inputs

0/8 PT1000 temperature inputs

16/8 digital Inputs

Up to 7/3 outputs

Supports Web Reporting of Data*

SMS Alarm and Status

Remote Configuration[#]

Remote Access to Data[#]

Compatible with ETM 3G (Telstra NextG™ approved) Modems

** Requires external services, by others*

[#] Requires CSD capable SIM

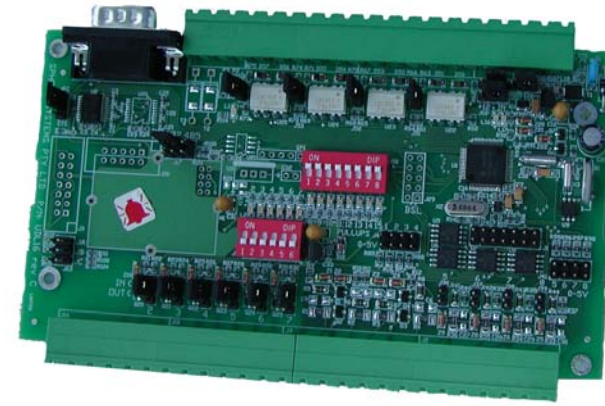
Data Logging, Alarm & Control

Wherever, Whenever You Need It

The WUDL/WUDL-PT data logger effectively combines the capabilities of a traditional data logger, basic PLC, SMS Alarm Sender and time clock in a single unit, which makes it ideal for a multitude of data logging, alarm and control applications.

Logged information can be downloaded directly to a PC via the RS232 serial interface or alternatively via an ETM GSM/GPRS (2G) or WCDMA/UMTS (3G) modem using a CSD connection. Data can also be automatically sent via an ETM modem to a nominated server for processing and saving to enable web delivery of data and alarms over the internet.

The unit incorporates SMS alarm capabilities, logic functions, and a calendar along with its analogue and pulse/counter data logging capabilities.



Configure the unit download data and receive alarms on your PC either by direct connection or via a GSM/GPRS or WCDMA/UMTS modem using CSD connection



Receive status and alarm signals or control the unit via SMS to/from your mobile phone

Control pumps, valves, warning lights, sirens or signs with the units digital outputs...or...use the digital inputs to count events/pulses

Configuration Software

Current logger status

Current value	Alarm state	Dig out 1	Dig out 2	Dig out 3	Dig out 4	Dig out 5	Dig out 6	Dig out 7	Dig out 8	Dig out 9
1 0.00m	Outside limits	Off	Off	Off	Off	Off	Off	Off	Off	Off
2 0.00m	not in alarm	Off	Off	Off	Off	Off	Off	Off	Off	Off
3 0.16	not in alarm	Off	Off	Off	Off	Off	Off	Off	Off	Off
4 0.66	not in alarm	Off	Off	Off	Off	Off	Off	Off	Off	Off
5 7.18V	not in alarm	Off	Off	Off	Off	Off	Off	Off	Off	Off
6 1.01	not in alarm	Off	Off	Off	Off	Off	Off	Off	Off	Off
7 1.29	not in alarm	Off	Off	Off	Off	Off	Off	Off	Off	Off
8 1.25	not in alarm	Off	Off	Off	Off	Off	Off	Off	Off	Off

Input config

Input type	Zero	Full scale	Units	Log
1 4 to 20mA	0.00	5.00	m	Yes
2 4 to 20mA	0.00	5.00	m	Yes
3 0 to 2.5V	0.00	2.50	No	No
4 0 to 2.5V	0.00	2.50	No	No
5 0 to 2.5V	0.00	16.00	V	Yes
6 0 to 2.5V	0.00	2.50	No	No
7 0 to 2.5V	0.00	2.50	No	No
8 0 to 2.5V	0.00	2.50	No	No

Time schedules

Time	Action	1	2	3	4
1 6:00	On	X	X	X	X
2 8:30	Off	X	X	X	X
3 9:00	Off	X	X	X	X
4 10:30	On	X	X	X	X
5 12:00	On	X	X	X	X
6 13:45	Off	X	X	X	X
7 17:30	On	X	X	X	X
8 21:00	Off	X	X	X	X

Applications

- Remote water metering with WEB based reporting (requires external services, by others)
- Rainfall Monitoring and Alarm
- Environmental Data Logging including water level, temperature, humidity, pressure and more
- Energy use data logging

Specifications

Analogue Inputs (AI)		Wudl	Wudl-PT
No. of Analogue Inputs		8 4-20mA / 0-2.5V / 0-5V	7 4-20mA / 0-2.5V / 0-5V
No. of PT1000 temperature I		N/A	8 -50°C to 150°C
Input Trip Level Discriminator		i) Normal Switch ii) Inverted Switch iii) Normal Window iv) Inverted Window All include a hysteresis setting to prevent excessive switching at threshold levels	
Programmable Delay		Yes, 0 to 255 seconds	
Programmable Sampling Rate		Yes, 1/second to 1/18 hours	
Input Averaging		Yes, average over logging period or instantaneous value when log is taken	
Accuracy ¹		4-20mA ±0.25% 0-2.5V ±0.25% (input resistance >100kΩ) 0-5V ±5% (Input resistance 20kΩ) Temperature ±0.5K (Resolution 0.05K)	
Digital Inputs (DI)			
Quantity/Type		16 Optically Isolated (6 of which can be configured as Outputs)	8 Optically Isolated
LED Status Indication		Yes	
Onboard Switchable Pull-up Resistor to accept switch closure to ground		Yes, selecting onboard pull-up resistors negates the optical isolation	
32 Bit Counter for Each Input		Yes, counter counts the positive transitions on an input	
Logging of Counters		Yes, can be reset at logging interval or via DI, DV, AI or time clock	
Scaling of counters		Yes	
Alarms derived from Counters		Yes	
Digital Outputs (DO)			
No. of Open Collector MOSFET Outputs		1, Maximum 100mA @ 25VDC	3, Maximum 100mA @ 25VDC
Shared I/O		6 additional shared with DI	N/A
Setting/driving of outputs		Via any DI, DV, AI or time clock	
Digital Variables DV			
No. of Digital Variables		48	
Digital Variable Features		All DV accept outputs from any internal function and can be used as inputs to any function 2 logical OR functions for combining of variables	
Edge detector			
No. of Edge Detectors		1, detects rising edge of either a DI, DV AI or time clock	
Alarms			
No. of Individual Programmable Alarms		16, reported via SMS (suitable GSM or UMTS modem required)	
No. Destination Phone Numbers		8	
Scheduling		Yes	
Escalation		Yes	
Time delay		Yes, programmable	
Alarm Generation		From any DI, DV, AI or time clock	
Daily alarm limit		Yes	
Logic functions			
No. of Logic Functions		8, derived from any DI, DV, AI or time clock, with 4 inputs and 4 AND/OR arrays. Logic output can be inverted	
Delay functions			
No. of Delay Functions		4, each with 3 types of output: delayed turn on, fixed width output or input stretching Delay function can be programmed to operate from either the rising or falling edge of the input	
Delay Times		1 to 255 seconds	
Time clocks			
Time clock functionality		8 separate time/action events per day 4 daily schedules 6 weekly schedules 8 public holidays schedules	
Counter functions			
No. of Counters		2, 16 bit counters which can be derived or cleared from any DI, DV, AI, or time clock Counters can be used to generate alarms	
Logging			
Memory Size		256kbytes	
Items which can be logged		AI, DI, Digital Counters, Alarms, Reprogramming events	
Maximum Logging rate		1 per second check	
Variable Logging Rate		Yes, controlled via any DI, DV, AI or time clock	
Output		Each recorded log can be sent to Serial Port as a .csv style frame each time a log is stored	
Communication			
Serial Port		DB9 Male RS232 9600 Baud Rate	
Remote Access		SMS, GPRS/UMTS with suitable modem	
SMS command capability			
Items/parameters Which Can be Remotely Interrogated		AI AI Limits DI & DO Status Phone Numbers in List Change Phone Numbers	
Can set/change		Phone Numbers AI Limits Enable/disable Alarms Switch DO Acknowledge Alarms and Cancel Escalation	
Sensor power control			
MOSFET Switched Power Supply to Sensors		1 Switched Supply 30mA maximum	
Programmable Sensor Warm Up Time		Yes, 30ms to 1000 seconds	
Physical Characteristics			
Dimensions		151mm x 82.5mm x 12mm	
Weight		50g	
Power Input		3.6V to 16VDC 50uA without pull-up resistors. Power Consumption may vary depending on configuration	12V to 16VDC 50uA without pull-up resistors. Power Consumption may vary depending on configuration
Environmental		-20°C to +50°C, 5 to 95% humidity non-condensing	
I/O Mating Terminal Block Type(s)		5mm Pitch Plug (Phoenix Contact or Equivalent)	

Notes:

1. Stated accuracy is over full range
2. For 0-5V range accuracy is after calibration (by others). 0-5V range not calibrated unless specifically requested.

ETM Pacific Pty Ltd
Suite 6, 273 Alfred Street
North Sydney NSW 2060
Australia
Tel: +61 (0)2 9956 7377
Fax: +61 (0)2 9956 5791
Email: info@etmpacific.com.au
Web: www.etmpacific.com.au

