



## S2000 MICRO

WITS and Native DNP3 intelligent remote telemetry unit with optional integrated pump controller

### INPUTS & OUTPUTS

Removable I/O connectors	Yes
Maximum I/O points	16 x Digital Input 4 x Digital Output 4 x Analogue Input

### ANALOGUE INPUTS

Type of input	-20mA to +20mA or -5V to +5V
Resolution	20 bits
Accuracy	0.1% (voltage) 0.15% (current)
Sensor supply output	24V DC
Sampling Period	1 second to 1 day

### DIGITAL INPUTS

Type of input	Volt free contacts
Contact wetting voltage	24V DC nominal
Sampling Period	1ms to 1 day

### DIGITAL OUTPUTS

Type of Output	Solid state relay (Photo MOSFET)
Maximum Switching Voltage	48V AC / +-48V DC
Maximum Switching Current	200mA DC
On Resistance (Typical)	1 Ohms
On Resistance (Maximum)	10 Ohms

### PROCESSOR UNIT

Type	Kinetis K60 (ARM Cortex M4) 96MHz
Flash	8MB Flash + 1MB CPU Flash
SRAM	4MB or 8MB SRAM + 512KB FRAM + 128KB CPU SRAM
Memory (SD Card)	Up to 32GB
Real-time clock	Yes
Event logging	WITS Log - 32,638 entries (FRAM Log) OR 114,684 entries (SRAM Log) (4MB SRAM) @32,764 Dataset events (WITS) or @76,450 standard DNP point events (4MB SRAM)

### COMMUNICATIONS

Option Card	GSM CSD/GPRS 2G/LTE 4G, PSTN V92, RS232, RS485
Built in	Ethernet, USB
Protocols	WITS DNP3 1.1, 1.2, 1.3 Web Server (HTTP), FTP, Telnet, DNP3 Slave, Modbus Master, Modbus Slave, AB DF1 Master, Mitsubishi A1S Master, Omron Hostlink Master, Ethernet/IP Master

### CONFIGURATION

Local (PC/Laptop)	Yes using CATool
Remote via network	Yes via WITS DNP3
Programming Languages	Isagraf IEC61131-3 Sequential Function Chart, Function Block, Ladder, Structured Text, Instruction List

### POWER

AC supply	90 - 265V AC
DC supply	10 - 15V DC
Solar supply	Can be powered by any PSU 10-15V DC
Power down modes	Full Sleep, Snooze with IO monitoring
Battery back up	Yes
Battery size	12V Lead Acid

### ENVIRONMENTAL

Working temperature	-20°C to +70°C
Storage temperature	-20°C to +85°C
Relative Humidity	5 to 95% RH @ 25-40°C (non-condensing)

### DIMENSIONS

Width	182mm
Height	114.5mm
Depth	69mm
Weight with internal PSU	1.1kg

### MOUNTING

Backplate, DIN Rail, Enclosure options	
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### DIAGNOSTICS

Local watchdog timer	Yes
Configuration display	Web page
I/O Status	Web page
Debug	Web page
Communications analyser	Web page

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## CERTIFICATIONS

EEN 55016-2-3:2006	Radiated emissions (limits as defined in EN61000-6-3-2007)
EN 55016-2-1:2004	Conducted emissions (limits as defined in EN61000-6-3-2007)
EN 61000-3-2:2006+ A1:2009+A2:2009	Limits for harmonic current emissions (equipment input current @ 16A per phase)
EN 61000-3-3:2008	Limitation of voltage fluctuation and flicker in low-voltage supply systems for equipment with rated current @ 16A
EN 61000-4-2:1995	Electrostatic discharge immunity test
EN 61000-4-3:2002+ A1+A2	Radiated radio frequency, electromagnetic field immunity test
EN 61000-4-4:2004	Electrical fast transient / burst immunity test
EN 61000-4-5:1995	Surge immunity test
EN 61000-4-6:2009	Immunity to conducted disturbances, induced by radio-frequency fields
EN 61000-4-11:2004	Voltage dips, short interruptions and voltage variation tests
EN 61000-4-8:1993+ A1:2001	Voltage dips, short interruptions and voltage variation tests
BS EN 61010-1: 2010	Safety Requirements for Electrical Equipment for Measurement, Control & Laboratory Use
BS EN 60950-1: 2006	Safety Requirements for Information Technology Equipment

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