



## S2000NANO

Battery operated, ultra-low power wireless telemetry unit and data logger for remote applications

### INPUTS & OUTPUTS

Removable I/O connectors	Yes
Maximum I/O points	1 x Digital Output 5 x Digital Input 2 x Analogue Input

### ANALOGUE INPUTS

Type of input (not independent)	-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	5V DC nominal
Sampling Period	1ms to 1 day

### DIGITAL OUTPUTS

Type of Output	Solid state relay (Photo MOSFET)
Maximum Switching Voltage	16VAC/35VDC
Maximum Switching Current	200mA DC
On Resistance (Typical)	1 Ohms
On Resistance (Maximum)	10 Ohms

### PROCESSOR UNIT

Type	Kinetis K66 (ARM Cortex M4)
Flash	96MHz
SRAM	8MB Flash + 2 x 1MB CPU Flash RAM 4MB SRAM + 512KB FRAM + 256KB 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

Wireless	GSM CSD, GPRS 2G, LTE 4G
LTE Frequencies	FDD B1, B3, B7, B8, B20
GSM Frequencies	GSM900, DCS1800
Local	USB
Protocols	WITS DNP3 1.1, 1.2, 1.3 Web Server (HTTP) FTP Telnet DNP3 Slave

### CONFIGURATION

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

### POWER

Battery (default)	21.6V DC lithium battery 13 Ah
Power down modes	Full Sleep, Snooze with IO monitoring

### ENVIRONMENTAL

Working temperature	-20°C to +70°C
Storage temperature	-20°C to +85°C
Submersion	IP68 to 4M for 4 days

### DIMENSIONS

Width	142mm (5.59")
Height	197mm (7.75")
Depth	115mm (4.52")
Weight	1.5kg

### MOUNTING

Backplate, DIN Rail, Enclosure options
--

### DIAGNOSTICS

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

[www.ovarro.com](http://www.ovarro.com)

Ovarro has a global network of offices and distributors. Visit our website to find your local office.



## 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

[www.ovarro.com](http://www.ovarro.com)

Ovarro has a global network of offices and distributors.  
Visit our website to find your local office.

