DATA SHEET

IPS Smart RTU

Flowserve IPS Wireless RTU Model S-EGI-NB-4/20-X*

The IPS Smart RTU model is a wireless transmitting unit designed to monitor multiple analog, discrete or IPS Wireless™ sensor inputs and wirelessly transmit the data to a receiver. It has the option of enabling wireless transmission (to become part of an IPS Wireless system) or disabling wireless functionality (to perform as a local alert or data-logging unit).

The S-EGI-NB-4/20 model also supplies the 24 VDC loop power if required by the customer's installed field instruments. The RTU is available with the following options:

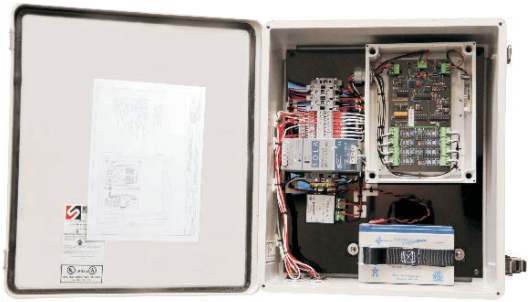
- VB-103-TAM to log measured sensor data
- RTU-OVAL to provide a visual light indication if any sensors are or have been in alarm
- RTU-SAL to provide a visual light indication when each sensor is in alarm
- RTU-SID to display current individual sensor reading

The Smart RTU is either powered by a solar panel or AC power and includes a built-in automatic battery back-up system. It can monitor up to eight different channels (dependent on accessories ordered) of analog, digital or IPS Wireless sensor inputs. The exact type of sensors monitored on each channel is dependent on the individual unit configuration. Consult factory for any applications that require more than eight channels per Smart RTU.

Each unit also has a single diagnostics port (inside the enclosure) for programming and troubleshooting the unit as well as logging data with the optional VB-103-TAM accessory (where collected data is stored).

The Smart RTU has a built-in, omni-directional wireless antenna, allowing for reliable signal transmission. Data transmittal can occur at a customizable time interval, ranging from every five seconds to once a day (this time interval is usually pre-configured at the factory). Transmission rates can also be varied according to sensor signal values, thereby prolonging battery life. The approximate transmitting range is 1.21 km (0.75 miles). For greater distances, Flowserve IPS Wireless Smart Repeaters expand the range to 11.27 km (7 miles). The IPS Wireless integrated data connectivity system is ideal for collection and transmission of data.

Model S-EGI-NB-4/20-VB RTU



Model S-EGI-NB-4/20 RTU

Flowserve
TX, USA Model: S-EGI-NB-4/20 RTU

II 3 G D

Ex nA IIC T6
Cl I, Div 2, Grp A,B,C,D; Cl II, Div2, Grp E,F,G, T6
Cl I, Zone 2, A/Ex nA IIC T6 Type 4X
-20i C ⩽ Ta ⩽ +40iC
Electrical Ratings: 115/230 Vac, 1.3/0.7A, 50-60 Hz
CAUTIONS: OPEN CIRCUIT BEFORE REMOVING COVER.
KEEP COVER TIGHT WHILE CIRCUITS ARE LIVE.
WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.
DO NOT DISCONNECT BATTERY OR EQUIPMENT UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS.
USE ONLY POWER SONIC BATTERY PART NUMBER PS-1270 OR PS-12180.

**X denotes different configurations*

Smart RTU unit specifications

Operating frequency	900 or 868 MHz
Channels	2, 4, 6, 8
Transmission rates	5 seconds or higher
Operating range	1.21 km (0.75 mile)
Operating temperature	-20ºC to 40ºC (-4ºF to 104ºF)
Channel output power	16 or 24 VDC
Channel output time	Programmable
Humidity	0–95% noncondensing
Inputs	4–20 mA, discrete, 0–1 VDC by channel
Power requirement	12 or 24 VDC, 110 VAC or 220 VAC
Enclosure	Fiberglass NEMA 4x (size dependent on accessories ordered)
Weight (solar power)	7.06 kg (15.50 lb) [Battery or accessories not included]
Weight (AC power)	6.80 kg (15 lb) [Battery or accessories not included]

Optional add-on sensor specifications

RTD	1000 or 100 Ohm (Platinum, two-wire)
Thermocouple	Type: J, K, N, T, etc. (+ cold reference and polynomial)
Pressure	Vacuum to 10 kpsi (0–25 mm/sec) [0–1 in/s]
Vibration	0–10 G peak
Discrete	Dry contact only

Optional RTU-OVAL specifications

Channels	1 to 6

Optional RTU-SAL-X specifications

Channels	1 to 6
Humidity	50% at 40ºC (104ºF)
Power requirement	24 VDC, 110 VAC or 220 VAC
Channel output power	24 VDC
Expected lamp life	100,000 hours
Sensor input types	Vibration (overall 4-20 mA signal), thermocouples, RTD (PT100, PT1000), pressure, 4-20 mA, discrete, oil/water, proximity probes

Optional RTU-SID-X specifications

Channels	1 to 6
Operating humidity	0–90% noncondensing
Power requirement	24 VDC, 110 VAC or 220 VAC
Channel output power	24 VDC
Sensor input types	Vibration (overall 4-20 mA signal), thermocouples, RTD (PT100, PT1000), pressure, 4-20 mA, discrete, oil/water, proximity probes
Display digits	Four digits, 6.4 mm (0.25 in) high in pre-specified engineering units
Display accuracy	±0.03% of span ±1 count
Backlight	Orange (intensity varies with signal)
Error display	Display flashes “99999” for over-range and “-99999” for under-range inputs

Developed to interface with most 4-20 mA or discrete signals.

Please refer to test sheets for final parameters.

Flowserve Corporation
5215 North O’Connor Blvd.
Suite 2300
Irving, Texas 75039-5421 USA
Telephone: +1 937 890 5839
Flowserve.com

1948 Foreman Drive
Cookeville, TN 38502
Phone: +1 931 432 4021

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