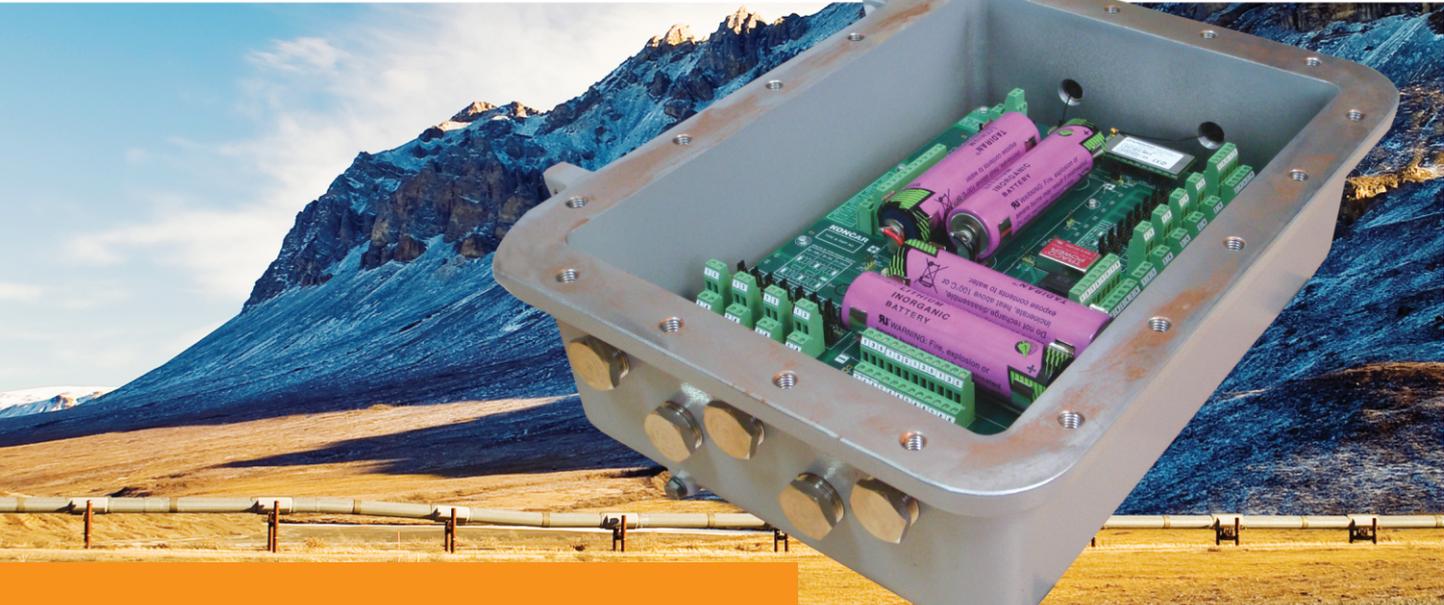




KONČAR

Končar Electronics and Informatics, Inc



KONRTU

KONRTU is KONČAR Remote Terminal Input Output Unit, a cost efficient, configurable microprocessor-controlled device that interfaces objects in the physical world to a distributed control system by transmitting telemetry data and by executing control commands received form master system. Large amount of configurable and isolated process interfaces allow connecting to various kinds of process values and at the same time easily meeting different field installation requirements.

Designed for harsh climatic conditions and hazardous environment. It can be battery operated or externally powered. High level of quality manufacturing and industrial hardware designs ensures high reliability and endurance.

KONRTU provides straightforward monitoring functionality, control functions and the integration of other field equipment. Implementing industrial grade digital and analogue inputs along with control interfaces through digital and analogue outputs, device contains serial RS232 or RS485 communication port for easy integration of existing field equipment allowing all in one solution for monitoring, supervision and control.

Unit provides native USB interface, SD card storage for easy and intuitive local system configuration and maintenance procedures.

Build around RPMA (Random Phase Multiple Access) wireless technology patented by On-Ramp Wireless, KONRTU device integrates high reliability, long range wireless networking capabilities with versatile process connectivity options.

Random Phase Multiple Access™ is a wireless innovation for wide-area M2M communication. KONRTU as part of On-Ramp Total Reach Network powered by RPMA with -142 dBm receive sensitivity and 172 dB of link-budget makes ideal solution for efficient long range wireless connection and integration of your critical assets urban, rural or even underground.

Highlights

- 2,4GHz free spectrum
- long range
- low power consumption
- industrial grade reliability
- easily interface anything

Technical data

General

Environmental specifications:

- Operating temperature range *-40°C to +55°C*
- Hazardous areas (ATEX) *Zone-1*
- Ex type of protection *Ex d [mb]*
- Ingress protection *IP66 (according to IEC 60 529)*

Process interface

Digital inputs:

- Number of digital inputs *8 channels*
- Input voltage ranges *0-12V, 0-24V, 0-48V*
- Pulse counting ability *2 channels*

Digital outputs:

- Number of digital output *8 channels*
- Type of outputs *relay contacts - change over*
- Switching capacity *2A / 60V_{DC}*

Analog inputs:

- Number of analog inputs *8 channels, differential voltage, current*
- Type *voltage, current*
- Input measuring voltage ranges *±5V_{DC}, ±10V_{DC}, 0-24mA_{DC}*

Analog outputs:

- Number of analog outputs *8 channels*
- Output voltage ranges *0-5V, 0-10V, 0-20mA, 4-20mA, 0-24mA*

Communication interface

Radio module:

- Frequency *2,4 GHz, free spectrum*
- Receiver sensitivity *-142dBm*
- Average transmission range *up to 10 km*

Serial RS232:

- Maximum data rate *250kbps*
- Interface lines *RX, TX, RTS, DTR and GND*

Serial RS485:

- Maximum data rate *1Mbps*
- Nodes supports *254 nodes*
- Protocol supported *Full / Half duplex*

USB port:

- Type *USB 2.0 full-speed*
- Connector *USB mini-B*
- Usage *System configuration, logging, diagnostics*

Power supply

Battery:

- Primary cells *2 or 4, Li-SOCl₂*
- Nominal voltage *7,2V (2 x 3,6V) or 14,4V (4 x 3,6V)*

External power*:

- Input voltage ranges *12 V_{DC}; 24 V_{DC}; 48 V_{DC};*
- Efficiency *> 83%*
- Maximum power consumption *14,5W*
- Short circuit protection *Yes*
- Isolation *1,5 kV_{DC}*

I/O power supply:

- Count *4*
- Output voltage *12 V_{DC}*
- Output current *167mA*
- Efficiency *> 80%*
- Isolation *1500V*

Storage

Memory card:

- Type *micro SD card (industrial grade)*
- Size *user defined*

Flash memory:

- Type *serial FLASH RAM*
- Capacity *32 Mb*

Optional solar power system **RPMA-PV-PS** (ordered separately)

- 50W solar module with horizontal pole mount with U-bolts
- #10-2 x 2m, output cable
- 12V controller with breakers and back plate
- 12V/99Ah, gel battery
- battery/controller enclosure, NEMA3R, with U-bolts

RPMA-PV-PS is C1D2 approved.



II 2G Ex d [mb] IIB + H2 T6



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