

Core Technology — JANOS Operating System

The **JNIOR Series 4** is INTEG's newest series of the JNIOR family of automation controllers. The **JNIOR** (pronounced 'junior') brings cost-effective connectivity to a small amount of process signals for stand alone control and/or integration with a variety of applications. The core of the INTEG technology is the JANOS operating system. Completely developed and maintained by INTEG using their many decades of experience.



HARDWARE

- 32-bit Microprocessor from Renesas
- 64 MB Dynamic RAM, 32 MB Flash memory, 2 MB Static RAM—battery backed lithium coin battery
- Core compliment of digital I/O
- Plug and Play I/O Expansion Modules for Analog signals and other sensors
- Ethernet Port—10/100MB, Two Serial Ports Sensor Port for Expansion Modules

PROCESS MANAGER

- Multi-Tasking
- Up to 16 processes running at the same time
- 48 threads per process
- 32 millisecond time slice on a round robin basis
- Interrupt driven I/O network
- Inter-process communication via Message Pump

FILE SYSTEM

- Handles various file types
- Battery backed RAM and FLASH memory

SECURITY

- SHA256—Certificate Management
- IP Filtering
- HTTPS, FTPS
- User Management

WEB SERVER

- HTML5, Ajax, and Web Sockets
- Server Side Scripting (PHP)
- Configuration, Monitor and Control Web Page
- Add-on Web Pages for Custom/Specific Applications

SOFTWARE APPLICATIONS

- Built-in and add-on applications from INTEG
- Custom applications

SUPPLY OPTIONS

- INTEG Standard Products
- Private Label
- Custom Hardware Versions/License Technology

NETWORK MANAGER

- Up to 48 Socket Connections
- TLS 1.2—secure connections
- Telnet (Secure/Unsecure)
- FTP (Secure/Unsecure)
- Network Time Protocol (NTP)
- DNS
- Syslog
- SNMP

JAVA VIRTUAL MACHINE (JVM)

- JDK 1.8
- Each instance of an application is a new process
- JANOS Class Library
- Utilize JANOS Registry System for user variables

COMMUNICATION PROTOCOLS

- JNIOR Protocol (Secure/Unsecure)
- Modbus—Master/ Slave—Ethernet TCP and RS485
- SNMP
- Custom and Proprietary Methods Also Available

EMAIL

- Email Client
- Login, secure connections, email port configurable

USER TOOLS

- JNIOR Support Tool—PC based
- Easy to load and update software
- Command Line Actions for quick items
- Built-in logs