

- Intelligent Ethernet I/O—“Expandable”
- Cost-Effective
- Web Based Configuration Screen
- No Programming Required
- E-mail Notification of Alarms and Events
- Integrates Easily with Other Applications
- TCP/IP, Modbus and OPC Communications



The **JNIOR** family of I/O modules with “Advanced Capabilities” brings cost-effective and seamless connectivity and control, with web and IT friendly features, to a small amount of process signals for integration over the Ethernet network with a variety of asset management applications.

The **JNIOR** Model 310 contains a built-in controller, a 10/100 Ethernet port, a mix of I/O signals, built-in web pages for easy configuration, monitoring and manual control, ability to communicate simultaneously to multiple devices, communication drivers for integrating with remote applications (TCP/IP, DLL, OPC Server), IT tools, flash file system, remote firmware upgrades, logging capabilities, sensor port, I/O expansion, rugged packaging and industry certification.

FEATURES

- ◇ 8 - Optically isolated inputs
- ◇ 8 - Dry contact relay outputs
- ◇ RS232 port for configuration and interacting with serial devices
- ◇ Usage meters (timers) for each input and output
- ◇ Inputs double as counters handling up to 2,000 counts per second per input
- ◇ Latching of input signals
- ◇ I/O “Slave” – outputs follow I/O on the same or different JNIOR
- ◇ Dual alarm levels for each counter input
- ◇ Configure unique e-mail address per alarm point
- ◇ Sensor Port for I/O expansion and configuration screen

No.1 Grinding Machine										Logout
I/O Control					Configuration	Registry Editor	Command Line	About this JNIOR		
INPUTS					OUTPUTS					
1 - Grinder Status On					1 - Machine Status Light Running Toggle					
Counts	R	Hours	R	Alarms	Hours	R				
12		4.94		Alarm 1 : 75 Alarm 2 : 95	4.94					
2 - Grinder Production Count					2 - Machine Alarm Faulted Toggle					
Pieces	R	Hours	R	Alarms	Hours	R	Slaved To din5			
24		0.02		Alarm 1 : 100	0.02					
3 - Grinder Cycle Complete Clear Latch					3 - Alarm Off Toggle					
Counts	R	Hours	R	Alarms	Hours	R				
10		0.00			0.00					
4 - Grinder Dressing Dressing					4 - Alarm On Toggle					
Counts	R	Hours	R	Alarms	Hours	R				
7		3.44			3.44					
5 - Grinder Faulted FAULTED Clear Latch					5 - Status Off Toggle					
Counts	R	Hours	R	Alarms	Hours	R				
5		0.03		Alarm 1 : 1	0.03					
6 - Safety Switch Open					6 - Status Off Toggle					
Counts	R	Hours	R	Alarms	Hours	R				
2		0.07			0.07					
7 - Door Closed					7 - Stop Running Toggle					
Counts	R	Hours	R	Alarms	Hours	R				
1		3.32			3.32					
8 - Reset Open					8 - Fault Off Toggle					
Counts	R	Hours	R	Alarms	Hours	R				
0		0.00			0.00					

Web-based User Interface Screen

SPECIFICATION

System Software

The JNIOR comes complete with all the software needed to configure, monitor and integrate your I/O. The user interface and configuration screens run in a standard web browser and can be viewed from any computer on the network (or via the Internet) because the software is stored on the JNIOR.

The JNIOR can also be integrated with your business or process control applications via standard TCP/IP communications, Modbus/TCP commands and/or the included OPC Server.

A software package capable of interacting with one or many JNIORs is also provided for easy software upgrades. The software upgrade will automatically be stored in flash memory.

Input Configuration							
din#	Description	On Text	Off Text	Invert	Latch		
					Latch	Time	
din 1	Grinder Status	On	Off	<input type="checkbox"/>	<input type="checkbox"/>		
din 2	Grinder Produ...	Count	Off	<input type="checkbox"/>	<input type="checkbox"/>		
din 3	Grinder Cycle	Complete	In-progress	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
din 4	Grinder Dress...	Dressing	Okay	<input type="checkbox"/>	<input type="checkbox"/>		
din 5	Grinder Faulted	FAULTED	Okay	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
din 6	Safety Switch	Closed	Open	<input type="checkbox"/>	<input type="checkbox"/>		
din 7	Door	Open	Closed	<input type="checkbox"/>	<input type="checkbox"/>		
din 8	Reset			<input type="checkbox"/>	<input type="checkbox"/>		

ORDERING INFORMATION

Item	Catalog No.	Notes
JNIOR Model 310	JNR-100-003A	Main Unit
Power Supply	PSA-120-125	Optional
DIN RAIL Adapter	DIN-300-001	Optional

Power Supply

Recommended 12 to 24 Volts DC or AC
At 500 mA (minimum)

Digital Inputs

Range 0 to 30 Volts AC/DC
Logic Low Input 0 to 1 Volt
Logic High Input 2 to 30 Volts
Input Resistance 1.2 K ohm nominal
Isolation Optically Isolated
Counter Capability 2 KHz Max each input, whether using 1 or all 8 inputs
Functions Latching Capability
Response Time 1 millisecond

Relay Outputs

Range 0 to 30 Volts AC/DC
Type SPST, Form A, 1 Normally Open
Contact Ratings 1 Amp @ 24 Volts AC/DC
Pulse Resolution 1 millisecond

Sensor Port

Applications RJ-11 port for connecting 1-Wire ® temperature sensors and I/O expansion modules

I/O Slaving

Feature Each output can be "slaved" to follow an input ("master") on "any" JNIOR so that the output signal is based on an input and/or to provide relaying of input signals to minimize wiring runs

Installation

Wiring 2-piece connectors for wiring
Mounting Tabs with DIN-rail option available

Physical

Dimensions 6 x 4 x 1.2 in. (152 x 102 x 31 mm)
Weight 11 ounces (312 grams)

RS 232 Serial Port

Baud Rate 115,200 baud
Data Bits 8
Parity None
Stop Bits 1
Flow Control None
Connection DB9 female with 9 pin DTE pin out

RS485 Serial Port

Communication Configurable based on application
Wiring 2-Wire or 4-Wire
Connection 5 pole, 2 piece connector

Ethernet Port

Speed 10/100 Auto-Negotiate, Full Duplex
Connection RJ-45 Connector

Environment

Operating Temp -15°F to 160°F (-25°C to 70°C)
Storage Temp -40°F to 185°F (-40°C to 85°C)
Humidity 5 to 95% Non-Condensing

Certification

World-Wide Safety and EMI/EMC Approvals - TUV Safety Mark (IEC, EN 60950)
- CE Mark
- FCC Class B (includes Class A)
- CB Scheme Available
Case - Flame Retardant ABS Plastic

Warranty

Hardware 2 years
Software 2 years with upgrades (as available)