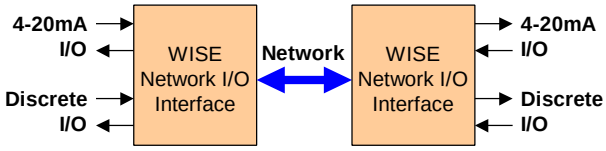
WISE I/O Interface - Network

Model #: ***WISE DIN-IOE***

FEATURES

- ***Plant-wide connectivity – connect 4-20 mA sensors and control signals point-to-point using existing network infrastructure***
- ***'Plug and play' – set IP addresses locally or via Telnet***
- ***IP addresses (local and destination) match I/O interfaces to each other***
- ***Includes web browser interface***
- ***DIN rail compact enclosure***
- ***Works with wireless Ethernet connections***
- ***I/O test button asserts local and remote outputs***
- ***Industrial grade - -40°C to +70°C, ESD and RF filtering on all I/O – suitable for in-plant and remote site applications***
- ***Easy set-up – Simply assign local and destination IP addresses.***
- ***LED indicators – DC Power, TX Data, RX Data, Alarm***
- ***Power sources – AC supply, battery, solar panel***
- ***Low DC power – External AC, or battery / solar operation***

WISE I/O Interface - Network



WISE I/O Interface - Network: Send 4-20 mA current loops and discretes over Ethernet.

Overview

The WISE Network I/O Interface allows standard 10BT or 100BT network connections to carry industrial 'legacy' signals, in an error protected digital format over Ethernet. 4-20 mA current readings on one side are replicated (16 bit precision) as 4-20 mA output currents on the other side. Likewise, discrete inputs are reproduced as relay outputs. The system provides for an equal number of inputs and outputs on both sides so a pair of I/O Interface units form a symmetric 'two-way' system.

The equipment is designed for in-plant and remote site applications. Power is supplied from an external AC adapter or external battery and solar panel. The solar panel interface accepts a wide range of voltage (12-24V) and a built-in regulator charges the battery and powers the gear.

Installation

WISE gear is shipped factory-configured and tested. There is no field configuration necessary other than setting the IP addresses – a local and a remote address. Once in operation, each side delivers data to the preset remote address via the network. For example, the configuration for a pair that talks to each other is simply that each use a remote address corresponding to the other's local address.

Self Test

A test button on the front panel of each WISE I/O unit forces local and remote 4-20mA and relay outputs to assert (20mA, relays closed) and de-assert, (4mA, relays open) momentarily. This allows quick verification of output interfaces and the network connection.

Status LEDs

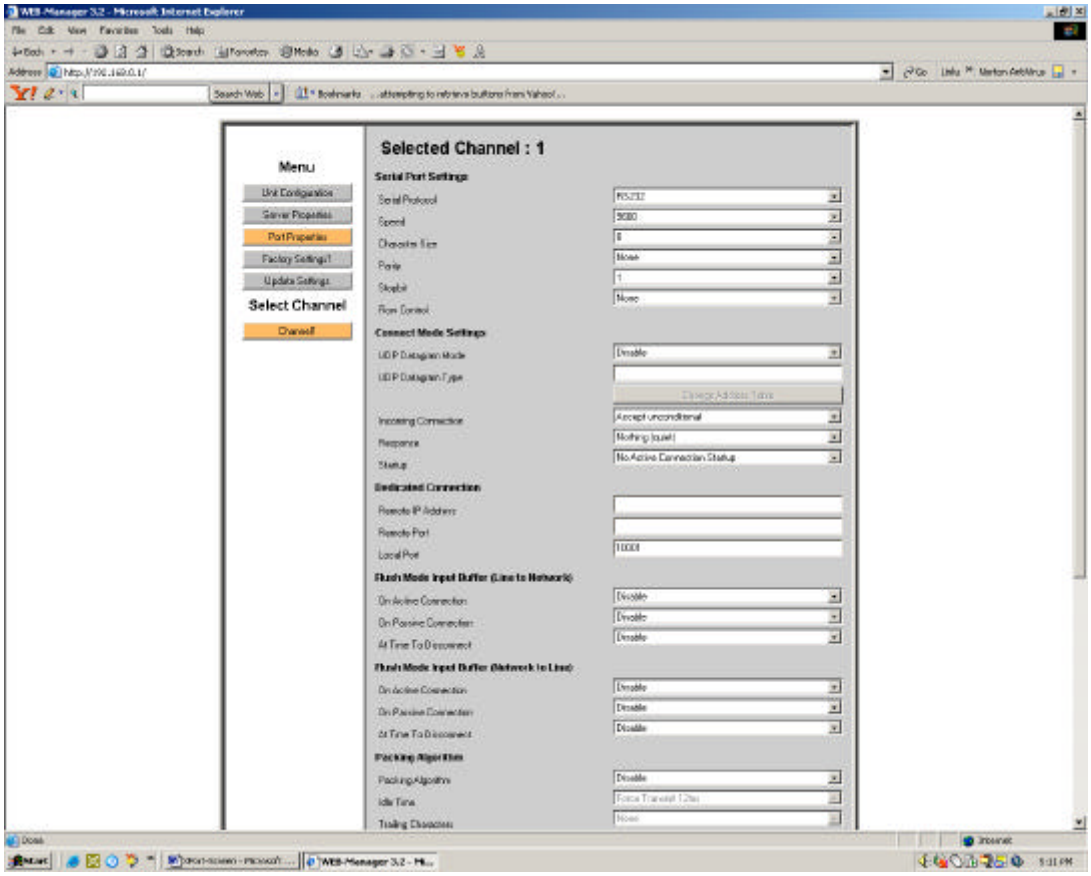
Status LED's display TX/RX data activity over the Ethernet link. An Alarm LED illuminates if the network connection is lost.

Sensor Power Supply

Sensors can be powered from the I/O Interface 'Sensor DC' ports (12 VDC, regulated). Higher voltages are available, as an option.

Web Interface

The web page interface (shown below) allows for easy configuration of the WISE Network I/O Interface. This is accessed locally (via the Ethernet port) or remotely over the network.



Specifications: WISE Network I/O Interface

Parameter	Capability
Analog Inputs	4: 4-20 mA current loops, 16 bit, 100 ohm internal termination
Digital Inputs	4: CMOS Level, internal pull-up – ground to assert
Analog Outputs	2: 4-20 mA current loops
Relay Outputs	2: Dry contact relay closures (normally open)
Analog Accuracy	4-20 mA: .1% full-scale @ 20ºC, .3% full-scale -40ºC to +70ºC
Interface Protection	RFI filtering all I/O, Transient suppressors all I/O, Self-reset fuses 4-20mA In
Sensor Power Out	15VDC @ 100mA regulated or 2 optional gated 24V outputs @ 70mA each
Network Topologies	Point to point (remote IP address setting determines connectivity)
Network Interface	10 / 100BT RJ45 Connector with connect / data indicators
DC Power In	12VDC to 24VDC @ 150 mA (external battery /external AC power supply available) Built-in internal solar panel regulator
Enclosure Type	Glassfilled Polycarbonate, DIN rail mount
Enclosure Size (LWH)	5” x 4” x 3”
Environmental	-40ºC to +70ºC

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