

ioPro

Remote MODBUS IO Modules & Wireless Data Links

MODULAR IO DESIGN

Stand alone Analog & Digital IO modules for all major signal types

WIRELESS EXTENSIONS

ioPro Wireless Data Links allow seamless connections between all units

IO MAPPING

Simple to Complex Mapping of all IO connections is supported

FULL ISOLATION

Up to 1500VRMS input-to-output and 500VDC channel-to-channel isolation

HIGH ACCURACY

Temperature resolutions (T/C or RTD) of 0.1°C

REMOVABLE TERMINALS

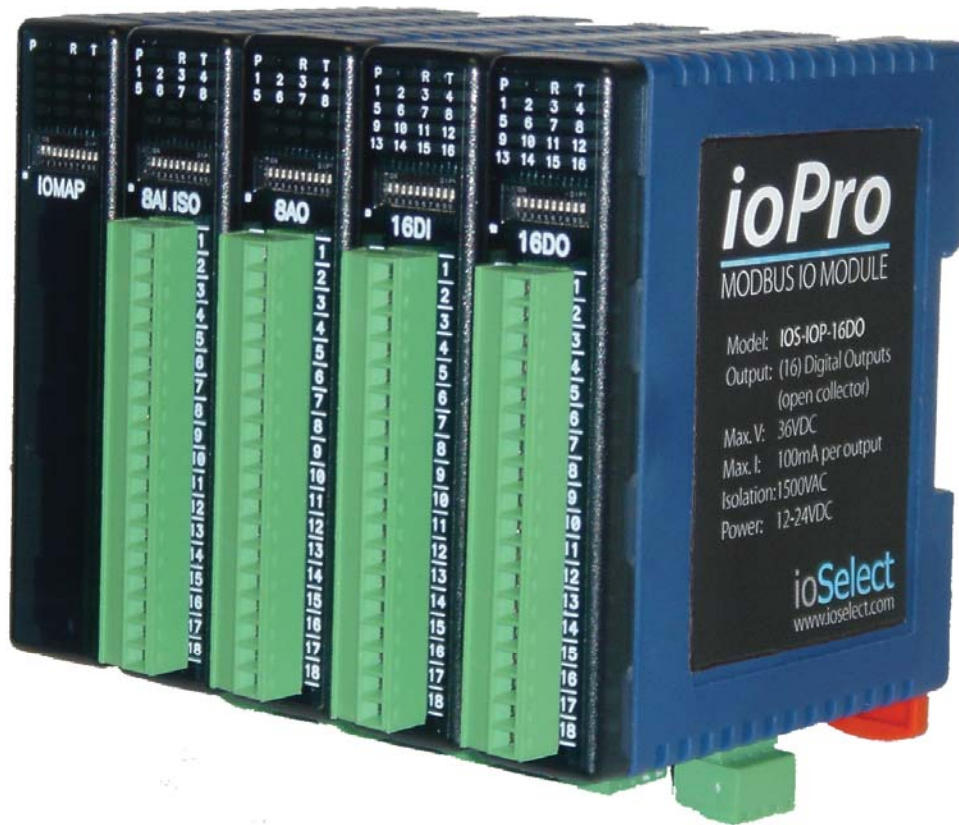
Removable 2-piece terminals for easy wiring and quick change outs

INDUSTRIAL SPECS

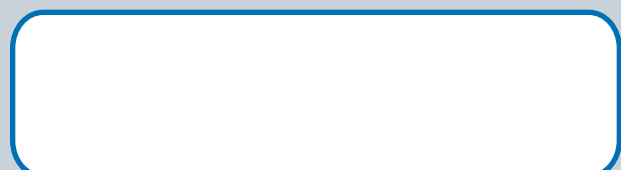
Operating Temperature Range: -40°C to +80°C

COMPACT DESIGN

22.5mm (< 1") wide DIN-mount packaging on all units



- ANALOG AND DIGITAL IO MODULES
- MODULES FOR ALL SIGNAL TYPES
- MODBUS RTU COMMUNICATIONS
- IO MAPPING MODULES
- WIRELESS DATA LINKS



TECHNICAL SPECIFICATIONS

INPUT MODULES, OUTPUT MODULES, IO MAPPERS, & WIRELESS DATA LINKS

Model IOPRO-8AI Analog Input Module



Number of Inputs: 8
 Voltage Inputs (Option V): 0-10V, 0-5V
 Current Inputs (Option I): 4-20mADC
 Resolution: 12-bits
 Accuracy: 0.2% of span
 Isolation: 1500V (rms), field to logic
 Input Impedance: 20K Ω (voltage), 250 Ω (current)
 Power Supply: 12-24VDC (@ 50mA max.)

Model IOPRO-8AO-V Analog Output Module



Number of Outputs: 8
 Output Range: 0-10VDC
 Output Compliance: 2000 Ω minimum load
 Resolution: 12-bits
 Accuracy: 0.05% of span
 Isolation: 1500V (rms), field to logic
 Power Supply: 24VDC (@ 120mA max.)

Model IOPRO-8AI-ISO Analog Input Module



Number of Inputs: 8
 Voltage Inputs (Option V): 0-10V, 0-5V
 Current Inputs (Option I): 4-20mADC
 Resolution: 16-bits
 Accuracy: 0.2% of span
 Isolation: 1000VRSM (I/O), 500VDC (channel-to-channel)
 Input Impedance: 20K Ω (voltage), 250 Ω (current)
 Power Supply: 12-24VDC (@ 50mA max.)

Model IOPRO-8AO-I Analog Output Module



Number of Outputs: 8
 Output Range: 4-20mA
 Output Compliance: 1K Ω max. @24V, 500 Ω max. @12V
 Resolution: 12-bits
 Accuracy: 0.05% of span
 Isolation: 1500V (rms), field to logic
 Power Supply: 24VDC (@ 210mA max.)

Model IOPRO-8TC Thermocouple Input Module



Number of Inputs: 8
 T/C input types: J, K, T, E, N, B, S, R, C, D or G
 mV input: 0-50mV or \pm 100mV
 Resolution: 16-bits (0.1 $^{\circ}$ C)
 Accuracy: T/C type dependant (0.1 $^{\circ}$ C to 0.9 $^{\circ}$ C)
 Isolation: 1500VRMS (field-to-logic)
 Drift: 100ppm/ $^{\circ}$ C, typical
 Power Supply: 12-24VDC (@ 100mA max.)

Model IOPRO-16DO Digital Output Module



Number of Outputs: 16
 Output Type: Open collector
 Maximum Voltage: 36VDC
 Maximum Current: 100mA per output
 Isolation: 1500V (rms), field to logic
 Watchdog Timer: 1 to 255 seconds
 Power Supply: 12-24VDC (@25mA, logic only)

Model IOPRO-8TC-ISO Thermocouple Input Module



Number of Inputs: 8
 T/C input types: J, K, T, E, N, B, S, R, C, D or G
 mV input: 0-50mV or \pm 100mV
 Resolution: 16-bits (0.1 $^{\circ}$ C)
 Accuracy: T/C type dependant (0.1 $^{\circ}$ C to 0.9 $^{\circ}$ C)
 Isolation: 1000VRSM (I/O), 500VDC (channel-to-channel)
 Drift: 100ppm/ $^{\circ}$ C, typical
 Power Supply: 12-24VDC (@ 100mA max.)

Model IOPRO-4RO Relay Output Module



Number of Outputs: 4
 Output Type: Relay, SPDT
 Maximum Current: 0.5A@ 220VAC, 1.0A@28VDC
 Isolation: 1000V (rms), field to logic & between outputs
 Watchdog Timer: 1 to 255 seconds
 Power Supply: 24VDC (@50mA, logic only)

Model IOPRO-6RTD RTD Input Module



Number of Inputs: 6
 RTD input types: PT100, PT1000, NI120, NI1000, Ohms
 RTD Configuration: 2 or 3 Wire
 Resolution: 16-bits (0.1 $^{\circ}$ C)
 Accuracy: 0.3 $^{\circ}$ C
 Isolation: 1500VRMS (field-to-logic)
 Drift: 100ppm/ $^{\circ}$ C, typical
 Power Supply: 12-24VDC (@ 100mA max.)

Model IOPRO-8DIO Digital Input/Output Module



Digital Inputs: 8
 Input Voltage: 12-24VDC (5-11mA)
 Digital Outputs: 8
 Output Max. Voltage: 36VDC @ 100mA per output
 Counter Inputs: Input Points: 1 to 16
 Resolution: 32 bits
 Frequency: 1000Hz, maximum
 Pulse Width: 500 μ S, minimum
 Power Supply: 12-24VDC (@50mA, logic only)

Model IOPRO-16DI Digital Input Module



Digital Inputs: Input Points: 16
 Input Voltage Range: 12-24VDC
 Input Current: 5mA (12V), 11mA (24V)
 Counter Inputs: Input Points: 1 to 16
 Resolution: 32 bits
 Frequency: 1000Hz, maximum
 Pulse Width: 500 μ S, minimum
 Power Supply: 12-24VDC (@30mA max, logic only)

Model IOPRO-IOMAP IO Mapper Module



Digital I/O Channels: 0-31 (max. 32 pairs)
 Analog I/O Channels: 32-47 (max. 16 pairs)
 Communications: Modbus Master
 Power: 12-24VDC (@ 25mA max.)

Model IOPRO-DAIO Multifunction IO Module



Number of I/O: (2)AI, (2)RTD, (1)AO, (4)DI, (2)DO
 Analog Inputs: 0-20mA or 0-10VDC
 RTD Inputs: PT100, PT1000, NI120, NI1000
 Analog Output: 0-10VDC or 0-20mADC
 Digital Inputs: 4 (10-26VDC), 4mA@12VDC, 8mA@24VDC
 Counters: 1 to 4, 32-bit resolution, 50Hz max.,
 20mS minimum pulse width
 Digital Outputs: 2 (36V @ 100mA, maximum per output)
 Input Impedance (AI): 20K Ω (voltage), 250 Ω (current)
 Output Compliance (AO): 500 Ω (12V), 1000 Ω (24V)
 Power Supply: 24VDC (@ 140mA max.)

Model IOPRO-WDL-900 Wireless Data Link



Operating Frequency: 902-928MHz
 RF Modulation type: FHSS
 Transmitter Power: 1mW to 1W, selectable
 Receiver Sensitivity: -110dBm
 Hopping Channels: 50
 Addressing: 65535 unique addresses
 Encryption: 256-bit AES Encryption
 Transport: Peer-to-peer, point-to-point,
 point-to-multipoint, and multidrop.
 Power Supply: 12-24VDC (@ 600mA max.)