

WI-I/O 9 Multi I/O Units

- Large I/O capability with I/O expansion
- Two-way communications
- Use where communications is required in both directions or for large I/O requirements. Each network can handle multiple I/O applications.
- Frequency hopping spread spectrum
- 902-928 MHz 1W license-free USA/Canada
- Configurable sub-bands license-free Mexico
- Up to 95 wireless units per network
- Support up to 31 I/O expansion modules (WI-I/O-EX-I-S-XX) per wireless unit
- Multi-hop repeater functions – up to 5 intermediate units
- Four I/O versions available:

WI-I/O 9	-1	-2	-3	-4
Digital inputs	4	4	0	4 – 16
			Voltage-free contacts	
Digital outputs	4 Relay contacts	1 FET	8 FET	4 - 16 FET
Analog inputs	2 4-20mA	6 0-20mA/0-10V	0	0
Analog outputs	2 4-20mA	0	8 0-20mA/0-10V	0
Pulse inputs	1 100Hz	4 1 x 1KHz, 3 x 100Hz	0	4 1 x 1KHz, 3 x 100Hz
Pulse outputs	1 100Hz	0 1 x 1KHz, 3 x 100Hz	4	4 1 x 1KHz, 3 x 100Hz

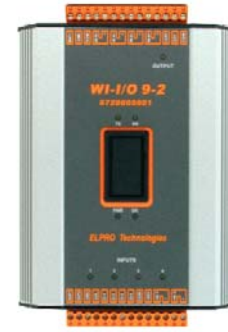
Note: Pulse and digital I/O are same connection.

- Pulse inputs generate separate pulse count and rate value; pulse rates treated as internal analog registers with configurable maximum value.
- Wide voltage power supply, with integral UPS battery charger and solar regulator
- Power supply generates transmittable internal I/O values
- Multiple communication-failure diagnostics with output status
- Class 1 Div 2 approval
- Radio receive signal and background RF noise measurement / logging diagnostics
- Input measurement display and output “forcing” diagnostics
- Communication logging diagnostics
- Easy-to-use E-Series Windows configuration

WI-I/O 9-1



WI-I/O 9-2



Technical Data

Inputs

Digital: opto-isolated (5000V) inputs suitable for voltage free contacts or NPN transistor, contact wetting current 5 mA
 Analog: "floating" differential inputs, common mode voltage 27V, 24VDC for powering external loops provided, digital filtering 1 sec.
 Pulse: as per digital inputs,
 Max pulse rate 100Hz, pulse width min 5ms

Outputs

Digital
 Analog: current sink to common,
 max loop voltage 27V, max loop resistance 1000 ohms
 Pulse: FET 30VDC 500mA max 100Hz

Power Supply

Battery supply
 Normal supply

Battery charging circuit
 Solar regulator

Internal monitoring

Notes

Serial Port

RS232/RS485
 RS232
 RS485

General Data

Operating Temperature
 Humidity
 EMC Standards
 Approvals
 Mounting
 LED indication
 Transmit power
 Sensitivity

Dimensions mm (in)

Ordering Data

four inputs

two 4-20mA resolution 15 bit, accuracy 0.1%

one input (DI1)

four relay contacts, Form A, AC, 50V 5A/ DC 30V 2A
 two 4-20 mA resolution 15 bit, accuracy 0.1%

one

11.5-15.0 VDC
 12-24 VAC or 15-30 VDC, over-voltage and reverse power protected

included for 1.2-12 AHr sealed battery for direct connection of solar panel (up to 30W) and solar battery (100AHr)

power fail, solar charge status, and battery voltage
 An internal DC/DC converter provides 24VDC 150mA for analog loop supply.

serial port 9600 baud, 8 bits, no parity, 1 stop bit
 9pin DB9 female connector
 max cable distance 2000 m terminal connections

-40 to 60°C (-40 to 140°F)

0-99%RH

FCC Part 15, AS3548, 89/336/EEC, EN 301 489

CSA Class 1 Div 2

DIN rail mounting

For power supply, WDT, digital I/O

1W

-108 dB

130 x 185 x 60 (5.1 x 7.3 x 2.4)

Type
 WI-I/O 9-1

Part No.
 6720005000

four inputs

six 0-20mA resolution 12 bit, accuracy 0.1%

four input(DI1-4) - first pulse input (DI1) max 1000Hz, pulse width min 0.5ms

one FET output 30VDC 500mA

11.5-15.0 VDC
 12-24 VAC or 15-30 VDC, over-voltage and reverse power protected

included for 1.2-12 AHr sealed battery for direct connection of solar panel (up to 30W) and solar battery (100AHr)

power fail, solar charge status, and battery voltage
 An internal DC/DC converter provides 24VDC 150mA for analog loop supply.

serial port 9600 baud, 8 bits, no parity, 1 stop bit
 9pin DB9 female connector
 max cable distance 2000 m terminal connections

-40 to 60°C (-40 to 140°F)

0-99%RH

FCC Part 15, AS3548, 89/336/EEC, EN 301 489

CSA Class 1 Div 2

DIN rail mounting

For power supply, WDT, digital I/O

1W

-108 dB

130 x 185 x 60 (5.1 x 7.3 x 2.4)

Type
 WI-I/O 9-2

Part No.
 6720005001

WI-I/O 9-3



WI-I/O 9-4



Technical Data

Inputs

Outputs

Digital
Analog: current sink to common,
max loop voltage 27V, max loop resistance 1000 ohms
Pulse: FET 30VDC 500mA max 100Hz

Power Supply

Battery supply
Normal supply

Battery charging circuit
Solar regulator

Internal monitoring
Notes

Serial Port

RS232/RS485
RS232
RS485

General Data

Operating Temperature
Humidity
EMC Standards
Approvals
Mounting
LED indication
Transmit power
Sensitivity

Dimensions mm (in)

Ordering Data

Technical Data

Inputs

eight FET output 30VDC 500mA
eight 0-20 mA resolution 12 bit, accuracy 0.1%
four (DO1-4)

11.5-15.0 VDC
12-24 VAC or 15-30 VDC, over-voltage
and reverse power protected
included for 1.2-12 Ahr sealed battery
for direct connection of solar panel (up to 30W)
and solar battery (100Ahr)
power fail, solar charge status, and battery voltage
An internal DC/DC converter provides 24VDC 150mA
for analog loop supply.

serial port 9600 baud, 8 bits, no parity, 1 stop bit
9pin DB9 female connector
max cable distance 2000 m terminal connections

-40 to 60°C (-40 to 140°F)
0-99%RH
FCC Part 15, AS3548, 89/336/EEC, EN 301 489
CSA Class 1 Div 2
DIN rail mounting
For power supply, WDT, digital I/O
1W
-108 dB
130 x 185 x 60 (5.1 x 7.3 x 2.4)

Type	Part No.
WI-I/O 9-3	6720005002

Technical Data

Inputs

up to 16 inputs (4 inputs + 12 selectable I/O) the 12 selectable
inputs are surge protected but not isolated
four input(DI1-4) - first pulse input (DI1) max 1000Hz, pulse
width min 0.5ms

up to 16 FET output (4 inputs + 12 selectable I/O)
four (DO1-4)

11.5-15.0 VDC
12-24 VAC or 15-30 VDC, over-voltage
and reverse power protected
included for 1.2-12 Ahr sealed battery
for direct connection of solar panel (up to 30W)
and solar battery (100Ahr)
power fail, solar charge status, and battery voltage
An internal DC/DC converter provides 24VDC 150mA
for analog loop supply.

serial port 9600 baud, 8 bits, no parity, 1 stop bit
9pin DB9 female connector
max cable distance 2000 m terminal connections

-40 to 60°C (-40 to 140°F)
0-99%RH
FCC Part 15, AS3548, 89/336/EEC, EN 301 489
CSA Class 1 Div 2
DIN rail mounting
For power supply, WDT, digital I/O
1W
-108 dB
130 x 185 x 60 (5.1 x 7.3 x 2.4)

Type	Part No.
WI-I/O 9-4	6720005003