



HVAC Controls

Zoning & Specialty Controls Catalog

Volume 6

Zoning
Dampers
Fresh Air Ventilation
Temp-Stats
Specialty Controls

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io

HVAC Controls

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ADDITIONAL RESOURCES

Visit us at www.iohvaccontrols.com for additional resources such as:

- Product overviews
- Installation manuals and wiring diagrams
- How-to videos

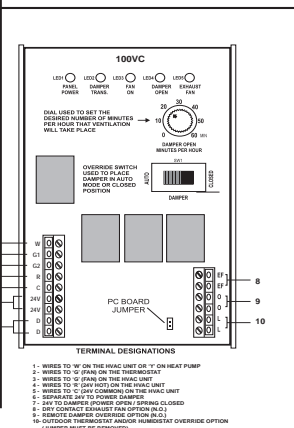
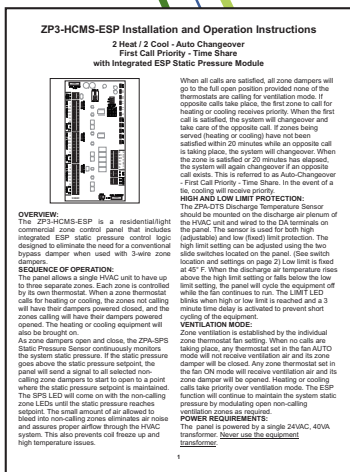


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ZP₂-HC
ZP₃-HPS
ZP₃-HCMS

iO HVAC Controls

HP-3 ZONE 04-15
CON/FUSE/OL O/B
PURGE Eng
24V
ZONE 1 INTERCOMMIT
CO
RO
W
Y1
Y2
G
O/B
RH
RC
W
Y1
Y2
G
O/B
DA
DA
OT
OT
FV1
FV2
HVAC UNIT
HVAC EQUIPMENT
FZ
ZD1
ZD2
ZD3

ZP3-HPS shown
Black boards coming in 2020

Warranty: 10 years

- Zone Panel
- Duct Temperature Sensor
- 40VA Transformer

4

6 Zone Panel

Zone Control Panel

The ZP6 is a 6 zone, two-position forced air zone control panel that can be expanded to 12 zones. The panel can be used with single-stage, multi-stage, heat pump or dual fuel equipment with up to 3 stages of heating and 2 stages of cooling. Slide switch configuration makes setup quick and easy. A wide range of control options provide ultimate application flexibility including adjustable high/low limits, adjustable high/low balance point, stage timing, capacity control and priority cooling control.

Features and Benefits:

- 6 zones expandable up to 12
- Auto changeover
- Cooling priority or majority wins
- Twenty minute time share option
- LED status indication
- On-board adjustable high and low limits and balance points
- Staging by zone thermostat or built-in adjustable upstage timer
- 2nd stage capacity control option
- Purge cycle option
- Works with 2 or 3 wire zone dampers

Warranty: 10 years

3-Zone Expansion Panel

ZP6-EP

This 3-zone expansion panel is used with the ZP6 zoning panel to increase the number of zones to 9 or 12.



Panel cover included

**Also available
as kit including:**

- Zone Panel
- Duct Temperature Sensor
- 75VA Transformer

Specifications:

Construction	Aluminum enclosure with snap-on panel cover
Mounting	Snap track with 2 back plate screws
Dimensions	13.50" Height x 11.00" Width x 2.00" Depth
Operating Temperature	-40° F to 150° F
Adjustable Discharge Air Limits	Low Limit (40° F to 58° F) High Limit (100° F to 175° F)
Outdoor Balance Points	Low Balance Point (0° F to 50° F) High Balance Point (55° F to 70° F)
Purge Cycle	Off or 1 minute
Fan Mode	All zones or by zone thermostat

ESP 2 Zone and 3 Zone

Zone Control Panels

ZP2-HC-ESP
ZP3-HPS-ESP
ZP3-HCMS-ESP

Our ESP zone panels integrate our 2 and 3 zone panels with our award-winning ESP (*Electronic Static Pressure*), technology. Each panel comes with a static pressure sensor. As zone dampers open and close, the static pressure sensor continuously monitors the system static pressure. If the static pressure goes above the static pressure setpoint, the panel will send a signal to the selected non-calling zone dampers to begin opening to a point where the static pressure setpoint is maintained. This eliminates the need for a conventional bypass damper.

The **ZP2-HC-ESP** is a single-stage heat/cool zone panel designed to control 2 zones in residential and light commercial applications. The **ZP3-HPS-ESP** model is designed to fit 3 zone applications for heat pump or dual fuel systems in residential and light commercial applications. The **ZP3-HCMS-ESP** model is designed to fit 3 zone applications for multi-stage heating and cooling in residential and light commercial applications.



NO BYPASS REQUIRED!

Features and Benefits:

- Built-in static pressure control eliminates the need for a bypass damper
- Auto changeover
- First call priority with time share
- LED status indication
- Independent fan control by zone
- Short cycle protection
- Competitively priced
- Works with 2 or 3 wire zone dampers*
- Adjustable high limit
- Adjustable high and low balance point (HPS)

Warranty: 10 years

ZP3-HCMS-ESP shown

Static pressure sensor & panel cover included

*For ESP functionality, 3-wire MD dampers and static pressure sensor must be used

Specifications:

Construction	Aluminum enclosure with snap-on panel cover
Mounting	Snap track with 2 back plate screws
Dimensions	8.00" Height x 6.00" Width x 1.50" Depth
Operating Temperature	-40° F to 150° F
Time Delays	3 minutes off between cooling calls 3 minutes off on low limit 20 minute time share
Discharge Air Limits	Preset Low Limit (45° F) Adjustable High Limit (130° F to 160° F)

ESP 6 Zone Zone Control Panel

The ZP6-ESP is a 6 zone panel that integrates our award winning ESP technology to completely eliminate the need to install a bypass damper. This 4H/2C zone panel comes with a static pressure sensor. The system works like any standard zone control system with one exception; a static pressure sensor continuously monitors the system static pressure. If the static pressure goes above setpoint, the ESP panel will power the selected non-calling zone dampers open just enough to relieve the excess pressure. Tests indicate that bleeding a small amount of conditioned air for a short time into non-calling zones has little to no impact on the zone temperature.

The panel can be used with single-stage, multi-stage, heat pump or dual fuel equipment. Programmable LCD and slide switch configuration makes setup quick and easy. A wide range of control options provide ultimate application flexibility including adjustable high/low limits, adjustable high/low balance point, stage timing, capacity control and priority cooling control.

NO BYPASS REQUIRED!

Features and Benefits:

- 6 zones expandable up to 12 (using ESP expansion panel)
- Auto changeover
- Cooling priority or majority wins
- Twenty minute time share option
- Optional night thermostat
- Humidification/Dehumidification pass-throughs
- Staging by zone thermostat or built in upstage timer
- 2nd stage capacity control option
- Purge cycle option
- Works with 2 or 3 wire zone dampers*
- Adjustable high and low limit
- Adjustable high and low balance point

Warranty: 10 years

*For ESP functionality, 3-wire MD dampers and static pressure sensor must be used

Specifications:

Construction	Aluminum enclosure with snap-on panel cover
Dimensions	13.50" Height x 11.00" Width x 2.00" Depth
Operating Temperature	-40° F to 150° F
Adjustable Discharge Air Limits	Low Limit (40° F to 58° F) High Limit (100° F to 175° F)
Outdoor Balance Points	Low Balance Point (0° F to 50° F) High Balance Point (55° F to 70° F)
Purge Cycle	Off or 1 minute
Fan Mode	All zones or by zone thermostat



Static pressure
sensor & panel
cover included

**Also available
as kit including:**

- Zone Panel
- 2 Duct Temperature Sensors
- Static Pressure Sensor
- 75VA Transformer

D and HD Series

2-Wire Round/Rectangular Zone Dampers

D-XX
HD-XXXX

The D Series dampers are galvanized steel, single-blade dampers with a 24 volt spring return actuator. These dampers are shipped complete and ready for installation. They are rated for duct systems with less than 1.0" WC. The D Series damper has a simple adjustment for setting the minimum position.



Features and Benefits:

- Compatible with most zone control panels
- 24-gauge steel shell
- Tight seal gasket
- 24V synchronous motor
- Can be configured as PC/SO or PO/SC
- Quiet operation
- Simple adjustment for setting the minimum position

Warranty: 5 years

Specifications:

Construction	24-gauge steel shell
Sizes	4", 5", 6", 7", 8", 9", 10", 12", 14", 16", 18", 20"
Damper Actuator Type	24VAC, 10VA, 2-wire power close/spring open

The HD Series dampers are extruded aluminum parallel blade dampers with a 24 volt spring return actuator. The HD Series dampers can be installed in any position. They are rated for duct systems with less than 1.0" WC. The damper has a simple adjustment for setting the minimum position.



Features and Benefits:

- Compatible with most zone control panels
- Extruded aluminum
- 24V synchronous motor
- Can be configured as PC/SO or PO/SC
- Quiet operation
- Simple adjustment for setting the minimum position

Warranty: 5 years

Specifications:

Construction	Extruded aluminum
Sizes	6" x 6" to 36" x 24" side-mount or bottom-mount
Damper Actuator Type	24VAC, 10VA, 2-wire power close/spring open

Retro Series

Retrofit Zone Control Dampers

These low-cost dampers make it easy to quickly add zoning to an existing duct system. The Retro damper is the perfect alternative to pneumatic systems that require special plastic tubing and pumps. This damper uses standard thermostat wire and will work with most zone control panels.

Features and Benefits:

- Compatible with most zone control panels
- 18-gauge steel
- Installation flexibility
- Saves time and labor expense
- Resolves tight space issues
- Includes screws and self-adhesive drilling/mounting template

Warranty: 5 years

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Specifications:

Construction	18-gauge steel
Sizes	5", 6", 7", 8", 9", 10"
Damper Actuator Type	24VAC, 1.5VA, 3-wire power open/power close
Timing	60 seconds

MD Series

Two-Position, 3-Wire Dampers

MD-XX
MD-XXXX

The MD Series dampers are perfect for use with most zoning systems and recommended for use with all of our ESP zone panels. The MD Series dampers can be installed in any position. They are rated for duct systems less than 1.0" WC. The MD Series damper has a simple adjustment for setting the minimum and maximum position.



NO BYPASS REQUIRED!

Features and Benefits:

- Two-position 24V motor; power close/power open, 3-wire
- Compatible with ESP panels to eliminate bypass
- Quiet operation
- Simple adjustment for setting the minimum position

Warranty: 5 years



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Specifications:

Construction	Round: 24-gauge steel shell Rectangular: extruded aluminum
Sizes	Round: 4" to 20" Rectangular: 6" x 6" to 30" x 20" side-mount and bottom-mount
Damper Actuator Type	24VAC, 2.5VA, 3-wire power open/power close
Timing	60 seconds

CD-XX
CD-XXXX
CRD-XX

CD Series

Carrier® Infinity®, Bryant® Evolution® and Comfortmaker® Ion™ Compatible Dampers

iO HVAC Controls offers a wide selection of in-stock round and rectangular dampers that are compatible with the Carrier® Infinity®, Bryant® Evolution® and Comfortmaker® Ion™ zone control systems. We offer standard and custom sizes, competitive pricing and same-day shipping.

Features and Benefits:

- Compatible with the Carrier® Infinity®, Bryant® Evolution® and Comfortmaker® Ion™ systems
- 3-wire 24V motor; power close/power open
- Large selection available in stock — ship the same day
- Round, rectangular and retrofit models offer installation flexibility
- Rectangular offers side-mount and bottom-mount
- Simple adjustment for setting the minimum position

Warranty: 10 years

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Specifications:

Construction	Round: 24-gauge steel shell Rectangular: extruded aluminum Retrofit: 18-gauge steel
Sizes	Round: 4" to 20" Rectangular: 6" x 6" to 36" x 24" side-mount or bottom-mount motor Retro: 5" to 10"
Damper Actuator Type	24VAC, 2.5VA, 3-wire power open/power close
Timing	15 seconds

TD Series

Trane® ComfortLink™ II and American Standard® AccuLink™ Compatible Dampers

TD-XX
TD-XXXX

iO HVAC Controls offers a wide selection of in-stock round and rectangular dampers that are compatible with the Trane® ComfortLink™ II and the American Standard® AccuLink™ zone control systems. We offer standard and custom sizes, competitive pricing and same-day shipping.



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ACTUATORS

Features and Benefits:

- Compatible with the Trane® ComfortLink™ II and the American Standard® AccuLink™ systems
- 3-wire 24V motor;
power close/power open
- Large selection available in stock — ship the same day
- Round and rectangular models offer installation flexibility
- Rectangular offers side-mount and bottom-mount
- Simple adjustment for setting the minimum position

Warranty: 10 years



Ask us about retrofit options

Specifications:

Construction	Round: 24-gauge steel shell Rectangular: extruded aluminum
Sizes	Round: 4" to 20" Rectangular: 6" x 6" to 36" x 24" side-mount and bottom-mount
Damper Actuator Type	24VAC, 2.5VA, 3-wire power open/power close
Timing	60 seconds

RM-XX
RM-XXXX

RM Series

Rheem® and Ruud® EcoNet® Compatible Dampers

iO HVAC Controls offers a wide selection of in-stock round and rectangular dampers that are compatible with the Rheem® and Ruud® EcoNet® zone control systems. We offer standard and custom sizes, competitive pricing and same-day shipping.

Features and Benefits:

- Compatible with Rheem® and Ruud® EcoNet® zone systems
- Two-position 24V motor; power close/power open, 3-wire
- Large selection available in stock — ship the same day
- Round and rectangular offers installation flexibility
- Rectangular offers side-mount and bottom-mount motor
- Simple adjustment for setting the minimum position

Warranty: 5 years



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Ask us about retrofit options



Specifications:

Construction	Round: 24-gauge steel shell Rectangular: extruded aluminum
Sizes	Round: 4" to 18" Rectangular: 6" x 6" to 36" x 24" side-mount or bottom-mount motor
Damper Actuator Type	24VAC, 2.5VA, 18in lb, 3-wire power open/power close
Timing	35 seconds

Register Boot Damper

RBD-XX

The RBD Register Boot Damper is a retrofit zone damper designed to be installed in a register boot without having to take the duct work apart. RBD Register Boot Dampers are available for register boots with 6" and 8" collars and can be installed in most boot configurations.



Register and boot not included.

Features and Benefits:

- Solution for installing dampers when the ductwork is not accessible
- Does not require the ductwork to be taken apart
- Compatible with most zone control panels and systems
- Saves time and cuts labor costs

Warranty: 5 years

Just slide the damper in and screw down the mounting bracket.

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Specifications:

Sizes	6", 8"
Damper Actuator Type	24VAC, 1.5VA, 3-wire power open/power close
Timing	35 seconds

MZR™

Motorized Zone Registers

The MZR, Motorized Zone Register, is a low-cost, rugged motorized register designed to work with most forced air zone control systems. It can also be used as a stand-alone register with a wall mounted thermostat to eliminate over-heating or over-cooling in bonus rooms, sun rooms, guest rooms and basements. The MZR is the perfect solution when you are unable to install zone dampers.

Features and Benefits:

- Low cost
- Easy to install
- Works with most forced air zone control systems
- Allows zoning to be installed in almost any application
- Can be used in floor and ceiling applications
- Designed to fit most register boots
- Available in tan or white

Warranty: 5 years



Specifications:

Operating Voltage	24VAC
Amperage	0.26A
VA Rating	10VA
Configuration	PC/SO or PO/SC
May require plenum-rated wire	

Dimensions	Color
4" x 10"	Tan and White
4" x 12"	Tan and White
4" x 14"	Tan and White
6" x 10"	White
6" x 12"	White

BH and BV Series

Barometric Bypass Dampers

BH-XX

BV-XX

BH and BV Series barometric bypass dampers are used to automatically bypass excess air when increases in duct pressure occur due to closing of zone dampers. Various relief air control settings are accomplished by simple adjustment of the weight on the arm. Barometric bypass dampers are recommended for systems up to 0.75" WC of static pressure. These come as horizontal or vertical configuration.



Features and Benefits:

- Easy adjustment
- Many sizes available
- Installation flexibility
- Reduces system noise
- Used for systems up to 10 tons

Warranty: 5 years

Typical Bypass Damper Sizing

Tons	Damper size
1-1.5	6"
2-2.5	8"
3	10"
4-5	12"
6-7.5	14"
10	16"

Systems that are 10 tons or more should use EB series Electronic Bypass Dampers

Specifications:

Construction	24-gauge steel shell, aluminum shaft, nylon bushings, blade seals, adjustable weights
Sizes	6" to 16"
Application	Systems with static pressure up to 0.75" WC

EB-XX
EB-XXXX

EB Series

Electronic Bypass Dampers

EB Series electronic bypass dampers are used to automatically bypass excess air when increases in duct pressure occur due to closing of zone dampers. The EB Series dampers utilize a floating-point actuator along with the iO-SPC static pressure control. The iO-SPC has a fully calibrated setpoint dial for easy setup and adjustment. The iO-SPC maintains the system static pressure by modulating the bypass damper. EB Series electronic bypass dampers are recommended for systems from 0.08" WC up to 1.20" WC of static pressure.

Features and Benefits:

- Easy adjustment
- Factory-calibrated
- Many sizes available
- Installation flexibility
- Reduces system noise
- Round and rectangular

Warranty: 5 years

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Typical Bypass Damper Sizing	
Tons	Damper size
1-1.5	6"
2-2.5	8"
3	10"
4-5	12"
6-7.5	14"
10	16"
12.5	18"
15	20"

Over 15 tons or more should use 2 Electronic Bypass Dampers (i.e. 1 EB and 1 SD Aux Bypass Damper)

Specifications:

Construction	Round: 24-gauge steel shell, aluminum shaft, nylon bushings, gasketed Rectangular: aluminum frame and blades, brass bushings
Sizes	Round: 6" to 20" Rectangular: 6" x 6" to 36" x 24"
Application	Systems with static pressure .08" to 1.20" WC
Damper Actuator Type	24VAC, 2.5VA, floating-point
Timing	90 seconds
Damper Position Indicator	Green LED indicates when the damper is opening.

Manual Balancing Dampers

MBD-XX
MBD-XXXX

The manual balancing dampers can be used for a variety of applications. Whether you are looking to balance the airflow in a large-scale commercial duct system or need a simple solution for directing airflow in a residential setting, we offer a variety of sizes to fit your needs.



Features and Benefits:

- Controls air flow
- Easy to adjust manual locking quadrant
- Standard and custom sizes available

Warranty: Non-returnable



Specifications:

Construction	Round: 18-gauge steel shell Rectangular: extruded aluminum
Sizes	Round: 6" to 20" Rectangular: 8" x 8" to 36" x 24" side-mount or bottom-mount

D-Z1-XX
D-Z1-XXXX

Zone One™

Two-Position, Stand-Alone Dampers

The Zone One two-position, stand-alone damper is a control damper assembly designed to solve over-heating and over-cooling problems. It can be used to control a single room, or by using multiple dampers, zone multiple rooms. The damper is wired to a thermostat in the room or area that is too hot or too cold. Using a duct temperature sensor mounted on the damper, the damper will open or close to help maintain setpoint based on the air temperature in the duct system.

Features and Benefits:

- Stand-alone control of single room or multiple rooms
- Two-position
- Auto changeover
- Minimum position adjustment
- LED status indicator
- Controls pre-wired
- No control panel required
- Installation flexibility
- Round and rectangular dampers

Warranty: 5 years



UT32 thermostat sold separately

Specifications:

Construction	Round: 24-gauge steel spiral shell, aluminum shaft, nylon bushings, gasketed Rectangular: aluminum frame and blades, nylon bushings
Sizes	Round: 5" to 18" Rectangular: 8" x 6" to 34" x 10" side-mount or bottom-mount
Damper Actuator Type	24VAC, 10VA, 2-wire power open/spring close

Titan Thermostat

3H/2C Touchscreen Thermostat

UT32

The Titan thermostat is a low-cost, universal touchscreen thermostat. The UT32 can be battery powered or hardwired, which makes it ideally suited for use in residential and light commercial applications.



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(Call for details)

Features and Benefits:

- Battery powered or hardwired
- Manual or auto changeover
- Programmable or non-programmable
- Up to 3H/2C, gas/electric, heat pump or dual fuel
- ASHRAE 62.2 compliant timed ventilation control
- Keypad lockout
- Adaptive recovery
- Adjustable heating and cooling setpoint limits
- Outdoor temperature display
(with optional outdoor sensor, T-OTS)
- Temperature averaging
(with optional indoor sensors, T-S1, T-S2)
- Short cycle protection
- High setpoint temperature range makes it ideal for hot yoga rooms

Warranty: 5 years

Specifications:

Dimensions	3.75" Height x 5.5" Width x 1.312" Depth
Display Size	2.375" Height x 4.125" Width
Input Voltage	24VAC, 50/60 Hz or 2 AA alkaline batteries
Relay Rating	24VAC @ 1Amp maximum per relay
Operating Temperature	32° F to 150° F
Operating RH	0% – 90% (non-condensing)
Temperature Sensors	10K NTC type 2
Short Cycle Protection	4 minutes
Setpoint Range	41° F to 122° F

iO-TSXX
iO-CLXX

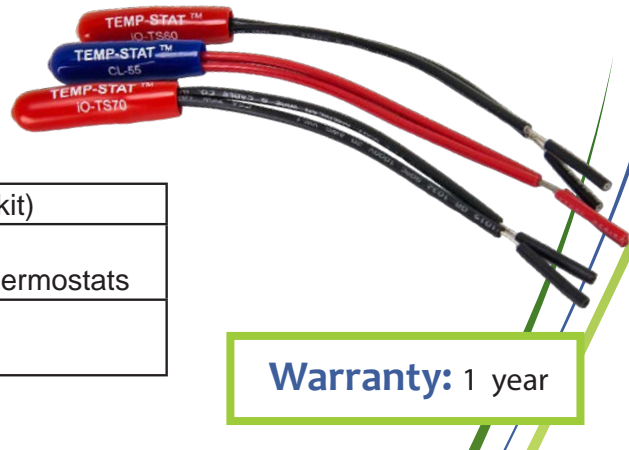
Temp-Stat™

Temporary Construction Thermostat

The Temp-Stat™ is a temporary construction thermostat preset to a non-adjustable temperature for savings on energy costs during construction.

Specifications:

Input Voltage	24VAC, 1A (line voltage control requires a relay kit)
Heating Only	41° F warehouse thermostat 55° F, 60° F, 65° F, 70° F, 75° F construction thermostats
Cooling Only	55° F compressor lockout thermostat 70° F, 75° F, 80° F construction thermostats



Warranty: 1 year

PART NUMBER	TEMPERATURE SETTING	DESCRIPTION
iO-TS60	60°	Heating application
iO-TS65	65°	Heating application
iO-TS70	70°	Heating application
iO-CL70	70°	Cooling application
iO-CL75	75°	Cooling application

Special Application Thermostats		
PART NUMBER	TEMPERATURE SETTING	DESCRIPTION
iO-TS41	41°	Heating application
iO-TS55	55°	Heating application
iO-CL55	55°	Compressor lock-out

iO-CSXXWP
iO-CSACXXWP

Conceal-A-Stat™

Flush-Mounted, Tamper-Resistant Thermostats

This concealed thermostat is designed to control unit heaters, cabinet heaters, in-wall heaters, fan coils or air conditioning units. Common applications include locker rooms, entryways, warehouses and hallways.

Specifications:

Input Voltage	24VAC, 1A (line voltage control requires a relay kit)
Heating Only	41° F, 60° F, 65° F, 70° F
Cooling Only	70° F, 75° F

PART NUMBER	TEMPERATURE SETTING	DESCRIPTION
iO-CS41WP	41°	Heating application
iO-CS60WP	60°	Heating application
iO-CS65WP	65°	Heating application
iO-CS70WP	70°	Heating application
iO-CSAC70WP	70°	Cooling application
iO-CSAC75WP	75°	Cooling application

Warranty: 1 year

Accessories

PART NUMBER	DESCRIPTION
iO-CSRY120	Relay kit for 120 volt control circuits
iO-CSRY240	Relay kit for 240 volt control circuits



Fresh Air Ventilation Kits

iO-FAV-o6

iO-FAV-o8

The Fresh Air Ventilation system is designed to introduce fresh air into a home through an intake damper controlled by a micro-processor logic panel. The iO-FAV has single adjustment setup, exhaust fan control option, outdoor temperature and/or humidity limit option and damper override capabilities. It is easy to install and meets ASHRAE Standard 62.2. The iO-FAV kit comes with a control panel, 20VA transformer and 6" or 8" round damper. The control panel is available separately (iO-FAVPAN) and can be ordered with additional size dampers.



Panel cover included

Features and Benefits:

- Micro-controller logic panel
- Status LEDs
- Single adjustment setup
- Meets ASHRAE Standard 62.2
- Exhaust fan control options
- Shut off switch on panel
- Outdoor temperature and humidity override option
- Optional on-demand CO₂ ventilation

Warranty: 5 years



Outdoor Thermostat
iO-ODT



Humidistat
H8908A SPST

Sold Separately

Specifications:

Mounting	Aluminum enclosure with snap-on panel cover
Panel Dimensions	8.00" Height x 6.00" Width x 1.50" Depth
Adjustable Ventilation Schedule	1 – 60 minutes
Power	24VAC
Damper	24VAC, 10VA, power open/spring close actuator

ASENSE-R-REL
ASENSE-D-REL

On-Demand CO₂ Ventilation



Sensors sold separately

Connecting the CO₂ sensor to the over-ride terminals on our Fresh Air Ventilation panel activates the on-demand ventilation function to provide fresh air. Contact iO HVAC Controls for engineering and installation instructions and schematics.

The ASENSE room and duct transmitters monitor the carbon dioxide (CO₂) levels in industrial, school, and office type environments.

- Single beam non-dispersive infrared technology
- Relay energizes fresh air ventilation
- Measures the CO₂ concentration in the ambient air up to 2,000 ppm
- Limited 5 year manufacturer's warranty



iO-FAV-ENHANCED
iO-FAVR-ENHANCED

Enhanced Fresh Air Ventilation

The FAV Enhanced panels have single adjustment setup, exhaust fan control options, outdoor temperature and/or humidity limit options and damper override capabilities. They are easy to install and meet ASHRAE Standard 62.2

- **iO-FAV-ENHANCED** is a preassembled and wired panel with 20VA transformer and gang box for line voltage separation.
- **iO-FAVR-ENHANCED** is a preassembled and wired panel with 20VA transformer, gang box for line voltage separation and relay to energize an exhaust fan.

Both products are available as kits which include a 6" or 8" damper

UT32-VK-XX

Titan Ventilation Kit



The UT32-VK Ventilation Kit is a low-cost combination of our Titan thermostat and intake damper, designed to meet code requirements in both single and multifamily new construction applications. This universal control, which meets ASHRAE 62.2 standards, allows for a fresh air damper to be wired directly to the thermostat and eliminates the need for an additional control panel. Kit includes Titan thermostat, 4", 6" or 8" damper and 20VA transformer.

Have your logo imprinted on the thermostat for FREE on orders of 12 or more!

Make-Up Air Damper Kit

MUA-XX

The Make-Up Air Damper Kit comes with an adjustable static pressure sensor that allows the contractor to calibrate when the make-up air damper opens, eliminating excessive unconditioned air in the home. The make-up air damper safely equalizes pressure within the home keeping unwanted and harmful gases from entering the living space due to negative pressure caused by exhaust fans.



Features and Benefits:

- Easy to install
- Adjustable sensor which allows for outside air to be introduced when necessary to meet code requirements
- Safely equalizes pressure within the living space
- Adjustable static pressure sensor .08" - 1.20" WC
- Multiple dampers can be chained together for high volume situations
- Ensures exhaust fan operates at optimal capacity

Warranty:

- 5 years on damper
- 1 year on controls

Specifications:

Construction	24 gauge steel damper, adjustable static pressure sensor (.08" - 1.20" WC), 20VA transformer
Sizes	6", 8"
Damper Actuator Type	24VAC, 10VA, power open/spring close

Wireless Relay Kits

The iO HVAC Controls Wireless Relays are the perfect solution when you can't run wire or existing wires have been cut or damaged.

Features and Benefits:

Can wirelessly control or monitor the following:

- Cooling equipment
- Heating equipment
- Condensing units
- Fans, pumps, lighting
- Industrial equipment

Warranty: 1 year

**WIRELESS
PRODUCTS**

4 channel wireless communication up to 100 ft

Specifications: Base and Satellite Modules

Dimensions	5.125" Height x 2.625" Width x 1.125" Depth
Input Voltage	24 VAC
Signal Input	24 VAC
Signal Output	24 VAC
Channels	4 channels
Contact Rating	1A per channel
Frequency	915MHz proprietary protocol
Range	100' between modules depending on building type
Factory-paired, unlimited number of pairs can be installed in same building	



iO-WR

2 channel wireless communication up to 1/2 mile

Specifications: Base and Satellite Modules

Dimensions	3.75" Height x 5.25" Width x 2" Depth
Input Voltage	12 or 24 VAC or VDC
Signal Input	Dry contacts
Signal Output	Dry contacts
Channels	2 channels that both send and receive
Contact Rating	10A per channel
Frequency	902-928 MHz
Range	1/2 mile through obstructions
Factory-paired, unlimited number of pairs can be installed in same building	



iO-WR-XR

Twinning Kit

iO-TWIN-TR

The Twinning Kit is designed to allow a single thermostat to control two identical HVAC units. It can also be expanded to control 4 identical HVAC units with one thermostat. The iO-TWIN-TR can be used on common or separate ducted systems with single-stage, multi-stage or heat pump equipment. Uses standard 18-gauge thermostat wire. Thermostats and HVAC units can be located up to 300' from the twinning kit panel. Kit includes control panel and 20VA transformer. The control panel only is available separately (iO-TWIN).



Panel cover included

Features and Benefits:

- Easy to install and setup
- Uses standard 18-gauge thermostat wire
- Optional control of up to four units
- Reduces installation time and cost
- Can be used with the Lead/Lag Controller
- Transformer included

Warranty: 5 years



Specifications:

Mounting	Aluminum enclosure with snap-on panel cover
Dimensions	8.00" Height x 6.00" Width x 1.50" Depth
Input Voltage	24VAC

Lead/Lag Controller

This versatile 24V Lead/Lag Controller offers balanced operating time between 2 redundant devices. Status LEDs indicate the controller is powered and which piece of equipment is currently being energized. The iO-LL can be used on HVAC equipment, industrial equipment, heating equipment, cooling equipment, fans, pumps and motors.

Features and Benefits:

- Microprocessor controlled
- Compact design
- Isolated inputs and outputs
- Status LEDs
- Reduces equipment maintenance and wear
- Can be used with the Twinning Kit

Warranty: 5 years



Panel cover included

Specifications:

Mounting	Aluminum enclosure with snap-on panel cover
Dimensions	8.00" Height x 6.00" Width x 1.50" Depth
Input Voltage	24VAC

Wireless Lodge Watch

Wireless Energy Management System

LW-1
LW-2
LW-3
LW-4

The Wireless Lodge Watch is a wireless monitoring system designed to save money on energy costs by making sure the equipment isn't running needlessly because a door or window has been left open. The Lodge Watch detects when a door or window is left open for more than 2 minutes. The Lodge Watch then locks out the HVAC equipment until it detects the closure of the door or window. This saves on energy costs, but also reduces short cycling of the HVAC equipment, reducing equipment icing, condensate pan overflow and wear on the equipment. Kits available for 1 to 4 doors and/or windows. Additional doors and/or windows can be added. Up to 30 transmitters per receiver module. Lodge Watch receiver module is for indoor use only.



For outdoor installation of the receiver module, must specify Lodge Watch system in water tight enclosure.



Features and Benefits:

- Locks out HVAC equipment when doors or windows are left open
- Restores HVAC operation when doors and windows are closed
- Reduces energy consumption
- Reduces equipment maintenance
- Extends equipment life
- Up to 30 doors or windows monitored on one panel
- Watertight enclosure available (LW1-WT, LW2-WT, LW3-WT, LW4-WT)

Warranty: 5 years

Specifications:

Receiver Module Dimensions	4.75" Height x 8.75" Width x 2.25" Depth
Sensor Dimensions	3.15" Height x 1.3" Width x .60" Depth (combined)
Transmitter Power	Solar or CR1216 battery
Control Module Power	24VAC
Transmission Range	80 ft.
Frequency	902MHz
Compliance	FCC, IC

Geothermal Interface Panel

The Geothermal Interface Panel is designed to control a geothermal radiant floor heating system and a forced air geothermal system from a single room thermostat. The iO-GEO panel eliminates the hassle of installing a second thermostat. The panel integrates the radiant floor heat as Stage 1 and the geothermal forced air heat pump as Stage 2.

Features and Benefits:

- Stages the radiant floor heat with the geothermal forced air heat pump
- Can be used with any 3H/2C thermostat
- Uses standard 18-gauge thermostat wire
- Saves hours of installation time
- Reduces installation cost
- Simplifies servicing the system
- Provides a clean, professional installation

Warranty: 5 years



Panel cover included

Specifications:

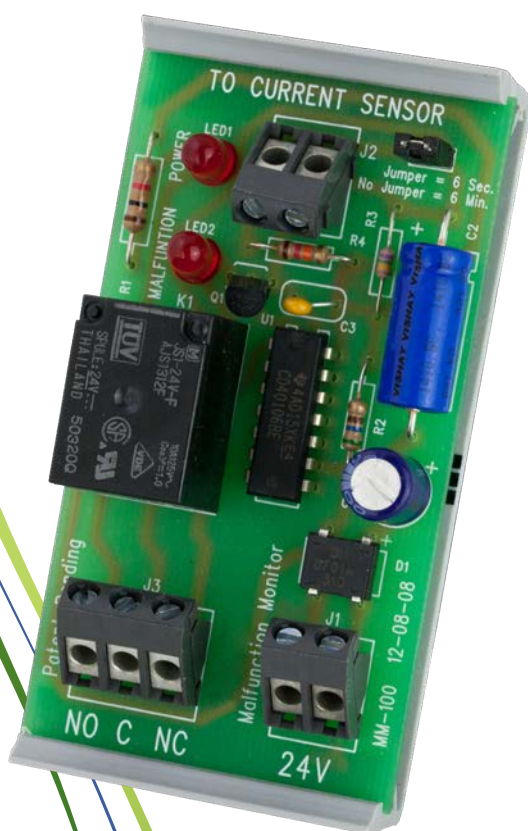
Mounting	Aluminum enclosure with snap-on panel cover
Enclosure Dimensions	8.00" Height x 6.00" Width x 1.50" Depth
Input Voltage	24VAC, powered by equipment transformer

Universal Malfunction Monitor Kits

UMM-XX

Fix It Before It's Broken!

The UMM Universal Malfunction Monitor is a solid-state, 24 VAC module designed to accept a variety of dry contact inputs such as a current sensing relay, static pressure switch, refrigerant pressure switch or freeze stat. Based on the selected input, the module will trigger a SPDT relay after a selected time of 6 seconds or 6 minutes once the input contacts open. The relay contacts can be used to disrupt equipment operation and/or send a signal to an alarm or other external monitoring device that a malfunction has occurred. This can greatly reduce damage to equipment and property as well as save down time and expensive equipment failure costs.



Features and Benefits:

- Multiple Sensor Options
- Easy to Install
- 6 second or 6 minute delay option depending on sensor

Monitor Options:

- Static Pressure Switch
- Freeze Sensor
- Current Sensor Relay
- Refrigerant Pressure Switch

Warranty: 1 year

Specifications:

Dimensions with enclosure	5.00"W x 6.00"H x 1.5"D
Max Control Voltage	30VAC
Relay Contacts	SPDT (Rated at 5A)
Enclosure	Plastic

UMM-SP

Static Pressure Switch



The UMM-SP can monitor a HVAC system blower through the use of a static pressure switch. If no airflow is detected, the UMM will disrupt the thermostat signal. The sensor probe should be mounted in the main discharge air plenum.

UMM-FS

Freeze Sensor



The UMM-FS can monitor the suction line temperature of an AC unit to prevent coil freeze up and potential water damage in the event of a blower motor failure, or restricted airflow caused by dirty filter, clogged coil or low refrigerant. It is recommended that the time delay be set for 6 minutes to prevent false triggering due to cold ambient compressor start up. It is highly recommended that the freeze sensor be wrapped with insulated tape.

UMM-CS

Current Sensor Relay



The UMM-CS can monitor the current to an HVAC blower. If no current is detected after 6 seconds, the relay contacts can be used to trigger an alarm or remote monitoring device. Make sure to connect 24VAC to the UMM that signals equipment to run. The relay has 0.25-150A sense range.

UMM-RP

Refrigerant Pressure Switch



The UMM-RP can monitor refrigerant pressure using a pressure control mounted on the liquid line side of a compressor. If the refrigerant pressure drops below the setpoint of the pressure control, the relay contact can be used to trigger an alarm or remote monitoring device.

Warning Watchdog™

Condensing Unit Alarm System

iO-WW

The Warning Watchdog is a condensing unit alarm system that sounds a loud siren and can also trigger a central alarm, phone dialer or other device. It can monitor up to 4 condensing units with one panel. This easy-to-install condensing unit alarm system can be used with packaged units or split systems. The alarm will sound if refrigerant loss is detected, the disconnect is pulled, or wiring is cut.

Warranty: 1 year



Warning Watchdog Packaged Hardwired Kits

ITEM	DESCRIPTION
iO-WW1	Logic panel with key lock, siren cut-off timer and siren silence switch Kit includes (1) iO-WWLP, (1) iO-WWPS, (1) iO-WWS, (1) iO-WWR240, (1) iO-WWPC
iO-WW2	Logic panel with key lock, siren cut-off timer and siren silence switch Kit includes (1) iO-WWLP, (1) iO-WWPS, (1) iO-WWS, (2) iO-WWR240, (2) iO-WWPC
iO-WW3	Logic panel with key lock, siren cut-off timer and siren silence switch Kit includes (1) iO-WWLP, (1) iO-WWPS, (1) iO-WWS, (3) iO-WWR240, (3) iO-WWPC
iO-WW4	Logic panel with key lock, siren cut-off timer and siren silence switch Kit includes (1) iO-WWLP, (1) iO-WWPS, (1) iO-WWS, (4) iO-WWR240, (4) iO-WWPC

Warning Watchdog Components and Optional Items

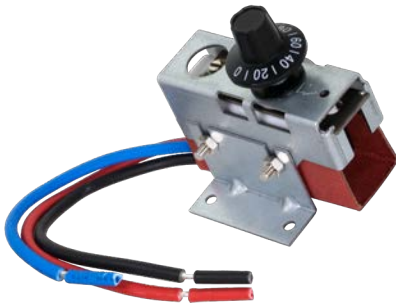
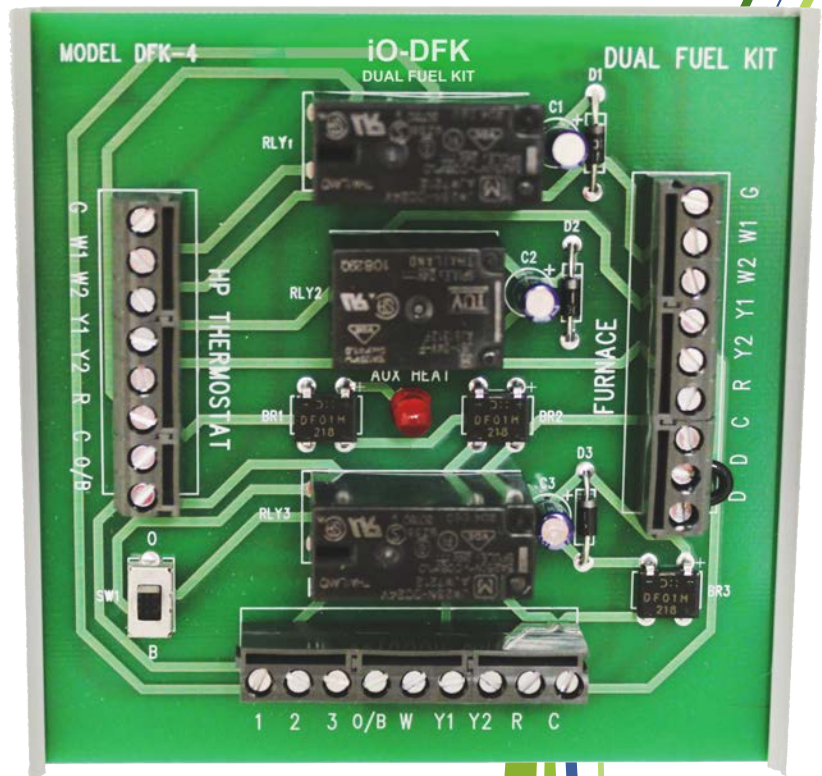
iO-WWLP	Logic panel with key lock, siren cut-off timer and siren silence switch LEDs confirm alarm status
iO-WWPS	Power supply for iO-WWLP logic panel 12 volts DC - 1500mA
iO-WWPC	Encapsulated pressure control (mounts on liquid line schrader valve service port) Working pressure up to 600 PSI - 3500 PSI burst strength - opens in fall below 10 PSI
iO-WWR12	Relay for additional siren. SPDT 12 volt DC relay
iO-WWR240	Voltage monitoring relay - 240/208 volts Can be used with 240/208 single-phase or 3-phase
iO-WWR480	Voltage monitoring relay - 440/480 volts Can be used with 440/480 3-phase
iO-WWS	Outdoor/indoor siren 12VDC 118dB output
iO-WWTS	Encapsulated tamper switch Detects excessive vibration or movement of condensing unit
iO-WWTAM	Warning Watchdog tamper alert. Visual confirmation of open circuit

This easy-to-install Dual Fuel Kit can be used with heat pumps and fossil fuel furnaces having up to 4 stages of heating and 2 stages of cooling. They work by turning the heat pump off at a pre-determined outdoor temperature permitting the fossil fuel furnace to run in order to reach the room thermostat setpoint. Includes snap track mounting and outdoor balance point thermostat.

Features and Benefits:

- Snap track mounting
- LED auxiliary heat indication
- Easy to read screw terminals
- 'O' and 'B' reversing valve selection switch
- Outdoor balance point thermostat included
- Provides professional looking installation

Warranty: 5 years



iO-DFK-ODT included in kit

Specifications:

Mounting	Snap track
Dimensions	4.00" Height x 4.00" Width x 1.00" Depth
Input Voltage	24VAC
Balance Point Range	0° to 100° F

Today's programmable and connected thermostats often need a "common wire" to power the radio modules and other electronics. On average, 30% of all homes do not have a common wire at the thermostat. The iO-W1-100 uses multiplexing technology to allow an additional signal to be passed through the common wire.

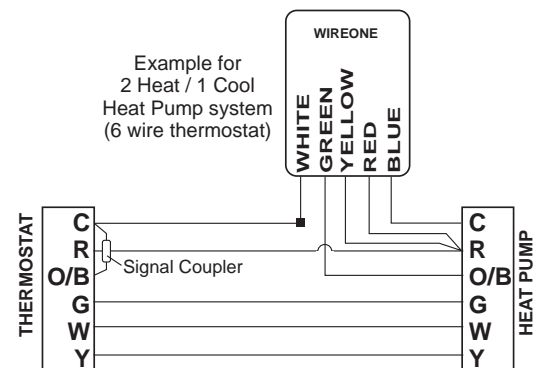
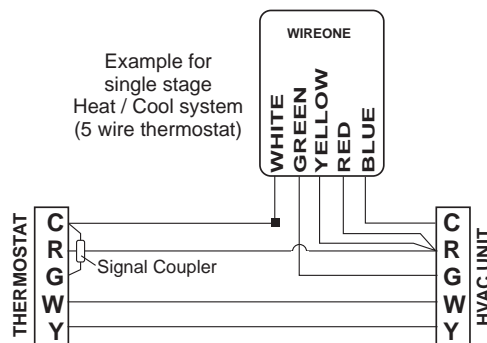


US Patents 7,922,100; 7,737,762;
other patents pending

Features and Benefits:

- Reduces installation time and cost
- Eliminates the need to run additional wiring
- Allows a single signal (W, Y or G) to be multiplexed over a common wire
- Supports single and dual transformer installations
- Supports both heat pump and conventional systems
- Provides short circuit protection through a self-resetting thermal fuse
- Includes a signal coupler and 5 splice wire caps
- Compatible with virtually all major thermostat brands

Warranty: 1 year



Specifications:

Dimensions	0.83" Height x 3.00" Width x 1.38" Depth
Maximum Output Current	.5A
Maximum Output Current	30VAC

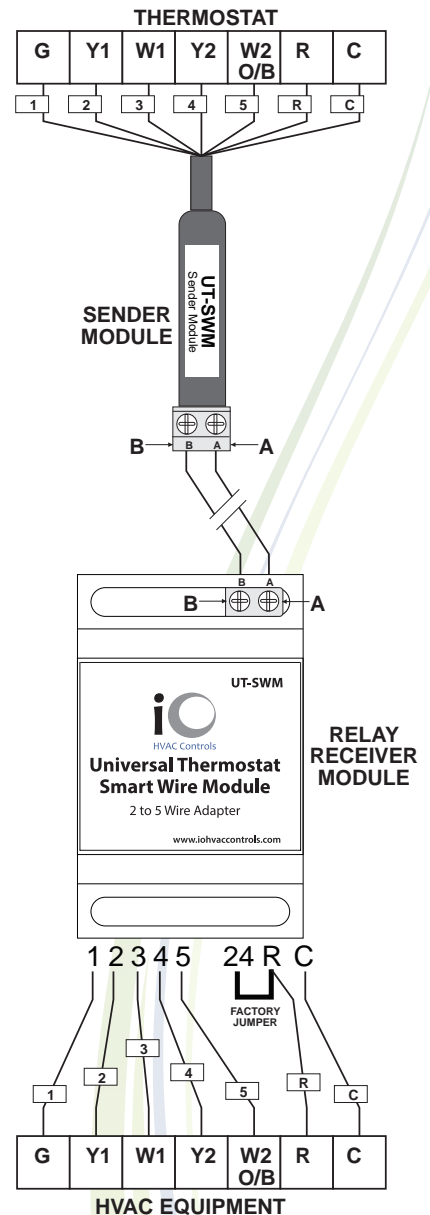
Universal Thermostat Smart Wire Module

The Smart Wire Module is a 2-5 wire adapter which allows you to add up to 5 additional outputs over a single pair of wires between two locations such as a thermostat and HVAC system. This product is highly universal, and saves the contractor time, money and effort of having to pull new wire in situations where additional wires are needed.

Features and Benefits:

- Reduces installation costs by not having to pull additional wire
- Send up to 5 additional outputs over a single pair of wires
- Supports both heat pump and conventional HVAC systems
- Compatible with virtually all major thermostat brands
- Includes compact sender module and relay receiver module

Warranty: 1 year



Specifications:

Power Supply	24VAC
Power Consumption	0.15mA (No Relays), 0.45mA (All Relays On)
Maximum Load Current	0.5 Amp @24VAC
Relays Switching Current	5 x 1 Amp (Volt Free)
Maximum Range	250 Feet
Transmission Lag	Up to 5 Seconds
Max Operating Temperature	122°F (150°F Storage)
Max RH	95% (Non Condensing)

Time Clock

iO-TC

This 7-day programmable Time Clock can be used to control up to 8 ON/OFF events per day from a selection of 15 daily program combinations. The iO-TC is powered by 24VAC and has a self-charging lithium battery to maintain the real-time clock schedules in the event of a power failure. The iO-TC comes in a metal enclosure with key lock and conduit knock-outs located on the top, bottom and sides for ease of installation.



Specifications:

Mounting	Metal enclosure with mounting holes
Dimensions	8.25" Height x 7.25" Width x 3.50" Depth
Input Voltage	24VAC

Features and Benefits:

- 8 ON/OFF daily events
- 15 program combinations
- Lithium battery backup
- Easy to program
- LED ON/OFF status
- Spade connectors included
- Protective clear timer cover
- All metal, keyed lock enclosure with conduit knockouts

Warranty: 1 year

Accessories



20VA Transformer
TR20VA001
120V Primary 24V Secondary 20VA
Transformer
Single Hub Foot Transformer



40VA Transformer
TR-40
120V Primary 24V Secondary 40VA
Transformer
Box mounted and multi-tap also available
TR-40-B, TR-40-MT



75VA Transformer
TR-75
480/240/208/120 Primary 24V
Secondary 75VA Transformer with
Circuit Breaker



Discharge Air Sensor
ZPA-DTS
The ZPA-DTS is a duct-mounted
temperature probe that provides limit
protection of heating and cooling
equipment. It senses the delivered air
temperature and cuts off the heating
or cooling when the delivered air
temperature goes above or below
normal operating limits.



Outdoor Temperature Sensor
ZPA-OTS
The ZPA-OTS is used in heat pump
applications for high and low balance
point control. This outdoor temperature
sensor detects the ambient temperature,
directing the zoning panel when to switch
to the auxiliary heat source.



Outdoor Thermostat
iO-ODT
For use with dual fuel applications and
high and/or low temperature lockout for
fresh air ventilation.



Static Pressure Controller
iO-SPC
The iO-SPC is a static pressure
controller with a solid-state switching
and timing circuit that enhances
operation and improves reliability. The
unit has a fully-calibrated setpoint dial
for easy setup and adjustment.



Remote Temperature Sensors
T-S1, T-S2
These sensors are used to monitor
temperature in a remote location from
the thermostat in indoor applications.
Designed to be used with the iO Titan
thermostat. For use with other thermostat
manufacturers, check with our product
engineers before ordering.



HD Motor
HD-Motor
Replacement motor for D and HD
Series dampers. 24VAC, 10VA, 2-wire,
PC/SO



Through iO HVAC Controls sourcing, we build relationships with other manufacturers to make products available to our customers that compliment our product offering.



Replacement Damper Actuator
FP18-Motor
Belimo 24V, 60 second,
18 in-lb Actuator

Replacement Damper Actuator
FP45-Motor
Belimo 24V, 90 second,
45 in-lb Actuator



Zip Economizer
ECON-ZIP-BASE
The ZIP Economizer™ is a modular designed, plug and play economizer control solution. The ZIP offers an extended temperature transfective LCD display, with on board help, providing information every step of the way.



Modulating, Spring Return Damper Actuator
AFB24-MFT
For fail-safe, modulating control of dampers in HVAC systems.



Modulating, Non-Spring Return Damper Actuator
LMB24-SR
For proportional modulation of dampers in HVAC systems.



Zip Economizer Accessories
ZIP-10K Sensor
ZIP-EM Energy Module
ECON-ZIP-TH Temperature and Humidity Sensor



ASENSE CO₂ Sensors
ASENSE-R-REL,
ASENSE-D-REL
The ASENSE room and duct transmitters monitor the carbon dioxide (CO₂) levels in industrial, school, and office type environments.



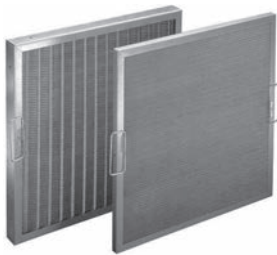
Duct Sensor, Thermistor
A/CP-D-8-PB
The standard plastic duct mount configuration has a mounting flange for quick installation and a foam pad to dampen vibrations.



Microprocessor Based Humidity Sensor
A/TUCH2-CP-0063
The microprocessor based A/TUCH2 can indicate room relative humidity, temperature, setpoint, fan speed, and occupied/unoccupied status with corresponding signals sent back to your DDC System.



Full line of Koch filters available.



Permanent Metal Washable Filters



Pleated Filters



Minipleat Filters



Duramax 4V Filters



Multi-Sak Bag Filters

Genesis Thermostat Wire

- Plenum Rated
- Non-plenum Rated
- 250 ft. Roll
- 500 ft. Roll
- Speed Bag
- Large range of wire gauges



Showroom Displays

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Wireless Relay and Temp-Stat Counter Displays



Showroom Banner



Warning Watchdog Display with Hanger and Easel



Showroom Product Display Kiosk

Available through
wholesale distribution



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