I/O MODULES
EXPANSION MODULES & WIRING ADAPTER

The I/O modules are advanced expansion devices designed to integrate with a variety of Honeywell controllers. These are available in six variants to cover all your application requirements.

The I/O modules can co-exist with the legacy Panel Bus I/O module on the same bus, thereby eliminating the need to replace all legacy Panel Bus I/O modules in the panel.

The I/O modules connect directly to the controller using the touch flake connections. The touch flakes are the hardware connections that provide the power and communication bus to the I/O modules.

The Wiring Adapter also provides power and communications to the I/O modules. It is typically used when the power and the communication bus needs to be extended to an additional row of IO modules or to a remote panel. The Wiring Adapter can be powered with the same or a separate power supply than the controller.

The I/O modules are programmable using the existing engineering tool such as ComfortPoint Open Studio tool and Niagara 4 Workbench.

Software updates, configuration, and commissioning are all done automatically by the controller for all I/O modules.

These devices can be mounted inside a panel using a DIN rail.



FEATURES AND BENEFITS

- UIO or Universal Input / Output modules provide maximum flexibility which minimizes unused IO in the panel and reduces the overall I/O footprint by using the least amount of I/O modules to cover the application requirements.
- Plug-and-play functionality for easy installation and maintenance. I/O modules can be replaced without having to slide or disturb the wiring of the adjacent modules.
- Supports a wide range of sensors.
- I/O modules are equipped with tri-color LEDs for all indications. This includes an RS485 communication LED, input/output channel LEDs, service/alarm LED and a main LED for general operational status of the I/O module.
- I/O modules support the Panel Bus protocol and have the capability of supporting multiple communication protocols in the future such as Modbus and BACnet MS/TP.
- Includes Hand-Off-Auto manual override using an intuitive and easy to see display for the selected I/O variants. Compliant with EN ISO 164-84-2:2004.
- Analog Inputs: 16-bit A/D conversion resolution for accurate measurement.
- Analog Outputs: 13-bit A/D conversion resolution.
- DIN19/DIN43880 (European Fuse Box) compliant. Compact size allows the module to be mounted in small panels and fuse boxes to minimize cost.
- UIO and UI I/O modules includes an onboard output to power external sensors (24 Vdc at 75mA).
- A service button to restore the factory default settings.
- Removable color coded terminal blocks for ease of service and replacement without having to re-wire the I/O module. I/O module variants are available in both screw terminals and push in terminals.
- DO relay module includes two jumpers to connect the relay commons to save time during installation.

Honeywell

- Supports a software configurable safety position per DO and AO channel in the event of a communication loss with the controller.
- Maximum wiring flexibility with the optional Auxiliary Terminal Block to distribute the signals/power and consolidate the wiring at the location of the I/O module.
- I/O modules are addressed manually by the 8-bit DIP switch. Protocol selection (Panel Bus, Modbus - future, BACnet MS/TP - future) are selected by the 4-bit DIP switch.

WIRING ADAPTER

Use the wiring adapter when power and the communication bus needs to be extended to the next DIN rail of I/O modules or when an I/O module is remotely mounted from the controller. The wiring adapter has a reversible cover that allows wiring left to right or right to left in the panel.

The wiring adapter has Touchflake connections on both left and right sides and provides a set of terminals for power and a set of terminals for the RS485 communication bus. The power and the communication bus are transferred to the I/O modules by the Touchflake connections.

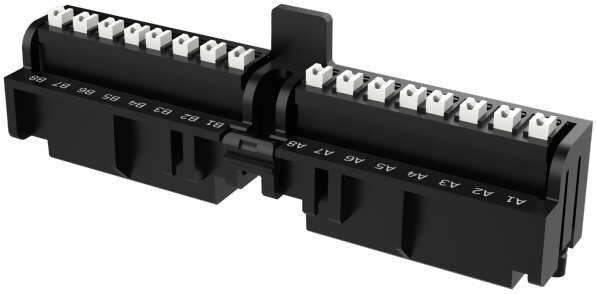
For terminal information, refer to the Interfaces and Terminals section. The wiring adapter has removable factory-installed screw terminal blocks.

The electrical ratings, environmental ratings, DIN standards, IP protection of the Touchflakes, life expectancy, and other compliance standards of the adapter are the same as I/O modules.



AUXILIARY TERMINAL BLOCK

The Auxiliary Terminal Block can be clipped onto an I/O module to provide additional common terminals. Each Auxiliary Terminal Block consists of two groups of 8 internally connected push-in terminals for distributing signals/power.



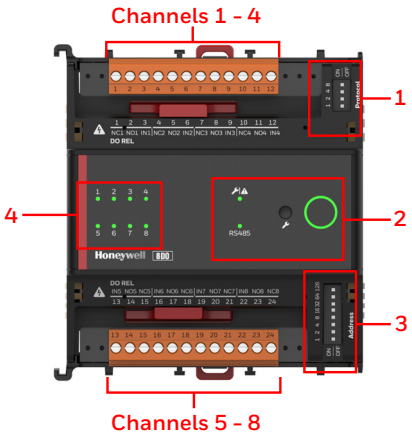
COMPATIBILITY

The I/O modules are compatible with the following controllers.

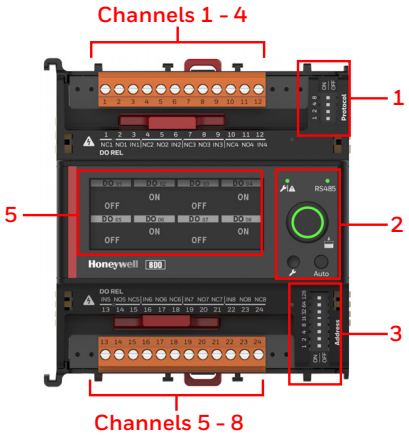
CONTROLLER TYPE	MODELS
CPO controllers	CPO-PC500 CPO-PC600
Niagara controllers	N-ADV-134-H N-ADV-133-H N-ADV-112-H

INTERFACES AND TERMINALS

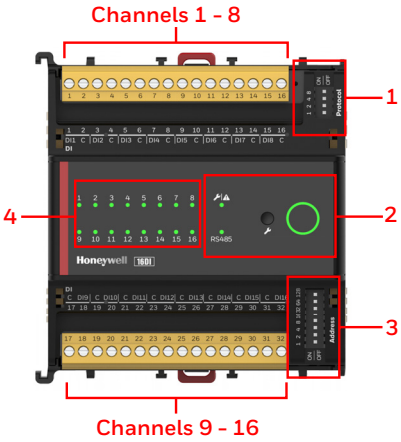
8 Digital Outputs



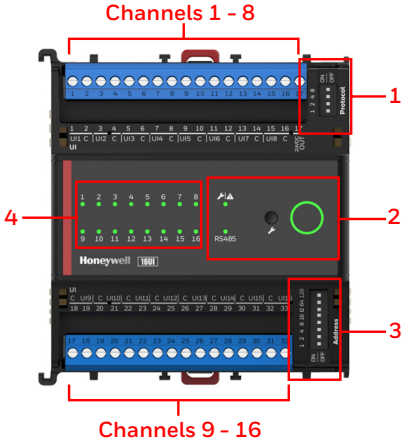
8 Digital Outputs with HOA



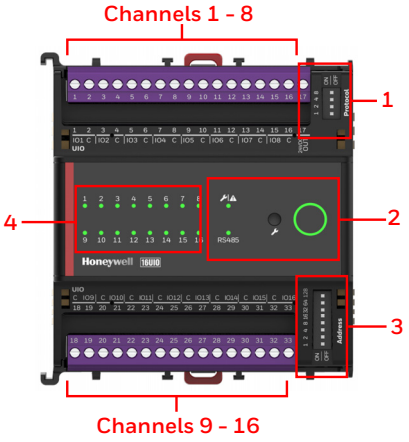
16 Digital Inputs



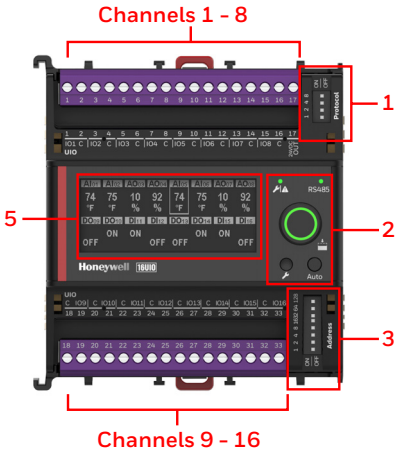
16 Universal Inputs



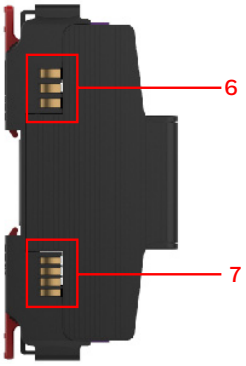
16 Universal I/O



16 Universal I/O with HOA



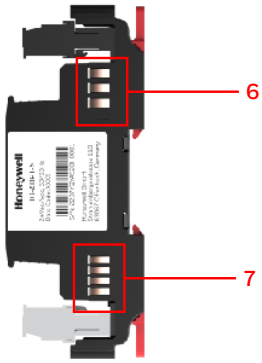
I/O Modules Touch Flakes



Wiring Adapter Terminals



Wiring Adapter Touch Flakes



I/O MODULE AND WIRING ADAPTER TERMINALS			
TYPE	**LEGEND**	**SIGNAL**	**DESCRIPTION**
Protocol	1		Protocol DIP Switch (4-bit)
LED/Button	2	Service LED	Service status of the I/O module.
		RS485 LED	Transmit and receive indication for RS485 communication.
		Ring LED	Indicates the operational status of the I/O module.
		Auto button	Auto button returns the selected channel to the Auto mode. NOTE: HOA I/O modules only
		Rotary dial	Rotate to the desired channel; then press to select the channel. Rotate to manually override the channel; press to exit to the main screen. DO channels can be set to ON or OFF. AO channels can be set between 0 to 100%. NOTE: HOA I/O modules only
		Service button	Reset the device to factory default.
Address	3		Address DIP switch (8-bit)
LED	4	LED	Transmit and receive signal of Input/Output (Off, Green, Yellow, and Red)
Hand-Off-Auto	5	Backlit Display	Displays the status of each channel, the type of point (AO, DO, AI, DI) and an indication if the channel is manually overridden (hand icon) with reverse background.
Wiring Adapter / I/O Module (Touchflakes - Power Terminals) NOTE: Touchflake connections extend power to the I/O modules	6	⎓	Power supply (24 Vac/dc)
		V0	Power supply common
		⏚	Connect to earth ground in the field
Wiring Adapter / I/O Module (Touchflakes - Comm Terminals)	7	T1L(+)	Pass through connection to T1L I/O modules (future).
		T1L(-)	
		RS485(+)	Touch flake connections extend RS485 communications from the Advanced Plant Controller to the I/O modules.
		RS485(-)	
Wiring Adapter Power Supply Terminals	8	⏚	Connect to earth ground in the field
		V0	Power supply common
		⎓	Power supply (24 Vac/dc)
Wiring Adapter RS485 Interface Terminals	9	COM	Common
		RS485(-)	(-) for RS485 interface
		RS485(+)	(+) for RS485 interface

SERVICE BUTTON

The I/O module has a physical service button to reset the device to factory default.

In most cases, a factory reset can be achieved while keeping power on to the I/O module. This is the recommended method as it is easier to perform the reset.

In some side cases (i.e. - application locked up), the only way that a device will reset is if power is interrupted to the I/O module first. If the I/O module did not reset with the recommended method, only then try resetting using the alternative method.

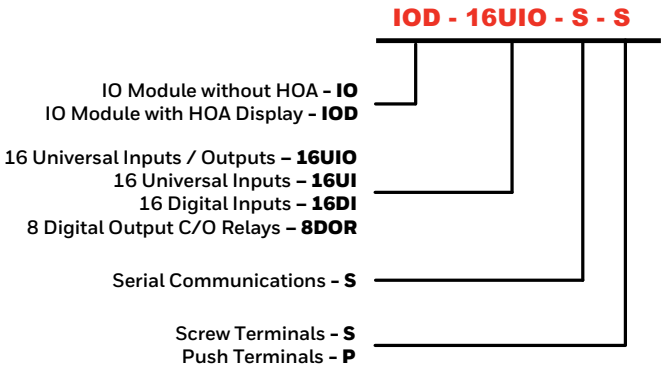
With Power On (Recommended method): Press and hold the service button for 10-15 seconds until the service LED blinks Green, then release the button and short press the service button within 5 seconds to confirm the reset to factory default.

With Power Off (Alternative method): Press and hold the service button, continue to press and hold the service button while turning power on to the I/O module. Continue holding the service button for 10-15 seconds until the service LED blinks Green, then release the button and short press the service button within 5 seconds to confirm the reset to factory default.

The reset performs the following operations:

- Resets the local I/O configuration
- Keeps the current firmware version
- Erases historical data

NOMENCLATURE



I/O MODULE PART NUMBER	
PART NUMBER	**DESCRIPTION**
IO-16UIO-S-S	16UIO I/O Module without HOA, Serial Comms, Screw Terminals
IOD-16UIO-S-S	16UIO I/O Module with HOA Display, Serial Comms, Screw Terminals
IO-16UI-S-S	16UI I/O Module, Serial Comms, Screw Terminals
IO-16DI-S-S	16DI I/O Module, Serial Comms, Screw Terminals
IO-8DOR-S-S	8DO I/O Module without HOA, C/O Relays, Serial Comms, Screw Terminals
IOD-8DOR-S-S	8DO I/O Module with HOA Display, C/O Relays, Serial Comms, Screw Terminals
IO-16UIO-S-P	16UIO I/O Module without HOA, Serial Comms, Push Terminals
IOD-16UIO-S-P	16UIO I/O Module with HOA Display, Serial Comms, Push Terminals
IO-16UI-S-P	16UI I/O Module, Serial Comms, Push Terminals
IO-16DI-S-P	16DI I/O Module, Serial Comms, Push Terminals
IO-8DOR-S-P	8DO I/O Module without HOA, C/O Relays, Serial Comms, Push Terminals
IOD-8DOR-S-P	8DO I/O Module with HOA Display, C/O Relays, Serial Comms, Push Terminals

I/O CHARACTERISTICS	
I/O TYPE	**SENSOR TYPE**
Analog input	• Software configurable as a Voltage Input, Current Input or as a Thermistor Input • Voltage Input: — 0 to 10 Vdc (Direct/Reverse) — 2 to 10 Vdc (Direct/Reverse) — 16 bit resolution — Custom characteristic available in the tool — Minimum resolution of 0.01 volts for 0-10 and 2-10 volt types — +/-0.4% of FSR for voltage input • Current Input: — 0 to 20 mA (Direct/Reverse) — 4 to 20 mA (Direct/Reverse) — 0 to 10 mA (Direct/Reverse) — 4 to 10 mA (Direct/Reverse) — 16 bit resolution — Custom characteristic available in the tool — +/- 0.5% of FSR (Full Scale Range) • Accuracy — 0 ohm to 80 ohm, 0.5%, +/- 0.5 ohm • Thermistor Input: — 16 bit resolution — Input range 0 to 1M ohm — Custom characteristic available in the tool — <= 1% of accuracy • Configurable offset per Input
UIO/Digital Input	• UIO/DI channels work with volt-free contacts, logic circuits, open collector (transistor), or open-drain (FET). • MSI and Accumulator points are displayed as DI points on the HOA display. **Dry contact 0 to 10Vdc typical (40Vdc maximum) - Direct/Reverse** — Closed contact: <= 500 ohm. Voltage: 0 to 2 Vdc. Short circuit current: >= 4mA — Wetting current: 3.5mA — Open contact: >= 3K ohm. Voltage: 4 to 40 Vdc **Voltage input 0 to 10 Vdc typical (40 Vdc maximum) - Direct/Reverse** — Voltage: 0 to 2 Vdc. Short circuit current: >= 4mA — Voltage: 4 to 40 Vdc or open circuit **Pulse inputs with totalizing** — 100Hz max. Minimum duty cycle (50%/50%) = 5ms ON / 5ms OFF

I/O CHARACTERISTICS	
I/O TYPE	**SENSOR TYPE**
Digital Output	• Supports a mix of low voltage and line voltage loads in the same I/O module. Channels 1-4 are Relay Block 1 and Channels 5-8 are Relay Block 2. Wire low voltage to Relay Block 1 and line voltage to Relay Block 2 or vice versa. Do not mix low and line voltage in the same Relay Block. • Max Load for 8DO Module (Total): — 19 to 250 Vac: 12A — 12 to 29 Vdc: 12A • **Channels 1-4; 6-8 Relay Rating:** — Rating per Relay for Normally Open and Normally Closed Contacts • 19 to 250 Vac — 5 Amp Max Resistive — 3 Amp Max Inductive — Inrush - 7.5A — Minimum Load 10mA • 12 to 29 Vdc — 5 Amp Max Resistive — 3 Amp Max Inductive — Inrush - 7.5A — Minimum Load 10mA • **Channel 5 Relay Rating:** — Rating per Relay for Normally Open and Normally Closed Contacts • 19 to 250 Vac — 10 Amp Max Resistive — 6 Amp Max Inductive — Inrush - 15A — Minimum Load 10mA • 12 to 29 Vdc — 10 Amp Max Resistive — 6 Amp Max Inductive — Inrush - 15A — Minimum Load 10mA • Any two DO channels are software configurable for floating control (one channel in the open direction and the other channel in the close direction). Open Run Time and Close Run Time are set in the Niagara tool. Not available in the CPO Studio tool. • Supports a software configurable safety position per DO channel in the event of a communication loss with the controller. • MSO points are displayed as DO points on the HOA display.
UIO/Analog Output	• Software configurable as a Voltage Output, Current Output or as a Floating Output • Voltage Output: (+/- 1mA) — 0 to 11 Vdc (Direct/Reverse) — 0 to 10 Vdc (Direct/Reverse) — 1 to 10 Vdc (Direct/Reverse) — 2 to 10 Vdc (Direct/Reverse) — 13 bit resolution • Current Output: — 0 to 20 mA (Direct/Reverse) — 4 to 20 mA (Direct/Reverse) — 13 bit resolution • Supports a software configurable safety position per UIO (AO) channel in the event of a communication loss with the controller
UIO	• AI, AO, DI, and DO option per UIO channel • Digital Output Option of 0 to 10 Vdc with a max output of 20mA. • Any two of the UIO channels are software configurable as Digital Outputs for floating control (one channel in the open direction and the other channel in the close direction). Open Run Time and Close Run Time are set in the Niagara tool.Not available in the CPO Studio tool. • Supports a software configurable safety position per UIO (AO/DO) channel in the event of a communication loss with the controller • 24VDC/GND for externally powered sensors

SUPPORTED SENSORS (SENSOR SCALING IN I/O MODULE)			
TYPE	**SENSOR**	**MODEL/TYPE**	**RANGE**
Thermistor Input	Temperature	NTC2K ohm	-49 to 125.6 °F (-45 to 52 °C)
	Temperature	NTC3K ohm	-34.6 to 240 °F (-37 to 115.5 °C)
	Temperature	10K3A1	-40 to 257 °F (-40 to 125 °C)
	Temperature	NTC10K ohm Type 2	-40 to 230 °F (-40 to 110 °C)
	Temperature	NTC10K ohm PRECON Type 2	-34.6 to 240 °F (-37 to 115.5 °C)
	Temperature	NTC10K ohm Type 3	-34.6 to 240 °F (-37 to 115.5 °C)
	Temperature	NTC20K ohm	-58 to 302 °F (-50 to 150 °C)
	Temperature	NTC20K ohm PRECON Type 4	-9.4 to 230 °F (-23 to 110 °C)
	Temperature	PT100	-58 to 482 °F (-50 to 250 °C)
	Temperature	PT1000 (IEC751 3850)	-40 to 199.4 °F (-40 to 93 °C)
	Temperature	PT1000-1	-58 to 302 °F (-50 to 150 °C)
	Temperature	PT1000-2	32 to 752 °F (0 to 400 °C)
	Temperature	PT3000	-58 to 302 °F (-50 to 150 °C)
	Temperature	NI1000TK5000	-22 to 266 °F (-30 to 130 °C)
	Temperature	NI1000TK6180	-40 to 302 °F (-40 to 150 °C)
	Temperature	Nickel Class B DIN 43760	-76 to 336.2 °F (-60 to 169 °C)
	Temperature	BALCO 500	-40 to 302 °F (-40 to 150 °C)
	Temperature	Johnson A99	-40 to 248 °F (-40 to 120 °C)
Current Input	Light Sensor	ALS-300 (708100000); 19.25 to 4.25 mA	0 to 300 fc
	Light Sensor	ALS-1.5K (708101000); 19.25 to 4.25 mA	0 to 1500 fc
	Space Light Sensor	LLO; 4 to 20 mA	0 to 1000 lux
	Space Light Sensor	LLO; 4 to 20 mA	0 to 2000 lux
	Space Light Sensor	LLO; 4 to 20 mA	0 to 4000 lux
	Space Light Sensor	LLO; 4 to 20 mA	0 to 8000 lux
	Space Light Sensor	LLO; 4 to 20 mA	0 to 20000 lux
	Outdoor Light Sensor	LLS; 4 to 20 mA	0 to 1000 lux
	Outdoor Light Sensor	LLS; 4 to 20 mA	0 to 2000 lux
	Outdoor Light Sensor	LLS; 4 to 20 mA	0 to 4000 lux

SUPPORTED SENSORS (SENSOR SCALING IN I/O MODULE)			
TYPE	**SENSOR**	**MODEL/TYPE**	**RANGE**
Current Input	Outdoor Light Sensor	LLS; 4 to 20 mA	0 to 8000 lux
	Outdoor Light Sensor	LLS; 4 to 20 mA	0 to 20000 lux
	Pressure	MLH050PSCDJ1235; 4 to 20 mA	0 to 50 psig
	Pressure	MLH150PSCDJ1236; 4 to 20 mA	0 to 150 psig
	Pressure	MLH300PSCDJ1237; 4 to 20 mA	0 to 300 psig
	Pressure	MLH500PSCDJ1240; 4 to 20 mA	0 to 500 psig
	Pressure	MLH01KPSCDJ1241; 4 to 20 mA	0 to 1000 psig
Voltage Input	CO2	0 to 10 Vdc	0 to 2000 ppm
	Relative Humidity	0 to 10 Vdc	0 to 100%
	Relative Humidity	2 to 10 Vdc	0 to 100%
	Pressure	0 to 10 Vdc	0 to 5 inches of WC
	Pressure	0 to 10 Vdc	0 to 2.5 inches of WC
	Pressure	0 to 10 Vdc	0 to 0.25 inches of WC
	Pressure	7330900; 1 to 5 Vdc	0 to 100 psig
	Pressure	7330910; 1 to 5 Vdc	0 to 400 psig
	Pressure	RCC-SP150-2; 0.5 to 4.5 Vdc	0 to 150 psig
	Pressure	RCC-SP150-5; 0.5 to 4.5 Vdc	0 to 150 psig
	Pressure	RCC-SP150-M; 0.5 to 4.5 Vdc	0 to 150 psig
	Pressure	RCC-SP300-2; 0.5 to 4.5 Vdc	0 to 300 psig
	Pressure	RCC-SP300-5; 0.5 to 4.5 Vdc	0 to 300 psig
	Pressure	RCC-SP300-M; 0.5 to 4.5 Vdc	0 to 300 psig
	Pressure	RCC-SP500-2; 0.5 to 4.5 Vdc	0 to 500 psig
	Pressure	RCC-SP500-5; 0.5 to 4.5 Vdc	0 to 500 psig
	Pressure	RCC-SP500-M; 0.5 to 4.5 Vdc	0 to 500 psig

TECHNICAL SPECIFICATION

SYSTEM DATA	
Operating Voltage (AC)	19 to 29 Vac (50/60Hz)
Operating Voltage (DC)	19 to 29 Vdc
Overvoltage Protection	Protected against overvoltages of max. 29 Vac or 40 Vdc. Terminals protected against short-circuiting.

POWER CONSUMPTION

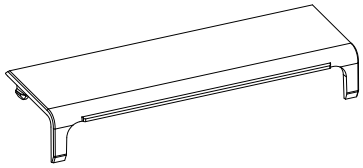
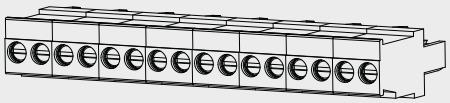
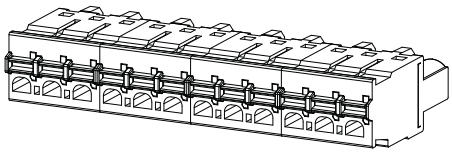
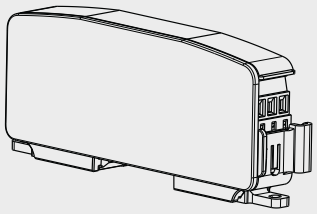
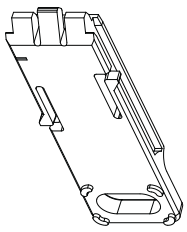
DEVICE	DEVICE STATUS	CURRENT (MAX) 24 VAC (MA)	CURRENT (MAX) 24 VDC (MA)	POWER (MAX) 24 VAC (VA)	POWER (MAX) 24 VDC (W)
16DI	All inputs ON	380	125	9	3
16UIO - HOA/NON HOA	All channels set to AO 20mA	1000	500	24	12
8DO - HOA/NON HOA	All relays ON	330	120	8	3
16UI	All inputs ON	760	340	18	8

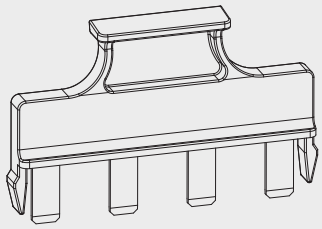
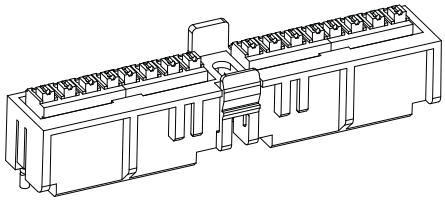
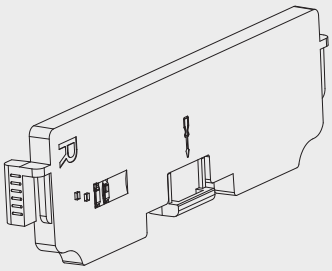
OPERATING ENVIRONMENT	
Ambient Operating Temperature	-40 to 150 °F (-40 to 65.5°C) for non-HOA variants, Wiring Adapter, and Auxiliary terminal block. -4 to 150 °F (-20 to 65.5°C) for HOA variants.
Ambient Operating Humidity	5 to 95% relative humidity (non-condensing)
Shipping and Storage Temperature	-40 to 158 °F (-40 to 70 °C) for I/O modules, Wiring Adapter, and Auxiliary terminal block.
Vibration Under Operation	0.024" double amplitude (2 to 30 Hz), 0.6 g (30 to 300 Hz)
Dust, Vibration	According to EN60730-1
RFI, EMI	Commercial, light, industrial, residential environments

OPERATING ENVIRONMENT	
Elevation	Up to 13123 ft (4000 meters) from sea level.
MTBF (Mean Time Between Failure)	11.5 years

STANDARDS	
Protection Class	According to final product evaluation, meet requirements of IP20
Testing Electrical Components	IEC68
Emission & Electrical Compliance	• CE — EMC - EN61326-1:201X Immunity: Table 2 - For equipment intended use in industrial location Emission: Class B — EMC- Immunity and Emission EN60730-1 — EMC- EN55032 Class B — EMC- Emission EN61000-6-3 — EMC- Immunity EN61000-6-2 • Safety - EN61010-1:201X; EN60730-1; • America — UL - UL916, UL60730-1, UL60730-2-9 — Emission - FCC Part 15B-Class B
Certification	• IEC68 • EN 60730-1 • EN 60730-2-9 • FCC Part 15, Subpart B • CAN ICES-3 (B)/NMB-3(B) • EN 61326-1 • EN 61010-1 • EN 301 489-1 • EN 301 489-17 • EN 300 328 V2.2.2:2019 • RoHS II: 2011/65/EU • REACH 1907/2006 • EN ISO 16484-2:2004, section 5.4.3 • UL 916 • CSA C22.2 No. 205 • UL 60730-1 • CAN/CSA E60730-1 • UL 60730-2-9 • CAN/CSA-E60730-2-9:18 • CAN/CSA-E60730-1:02
System Transformer	The system transformer(s) must be safety isolating transformers according to IEC 61558-2-6. In the U.S.A. and Canada, NEC Class 2 transformers must be used.
Mounting compliances	DIN43880 and DIN19

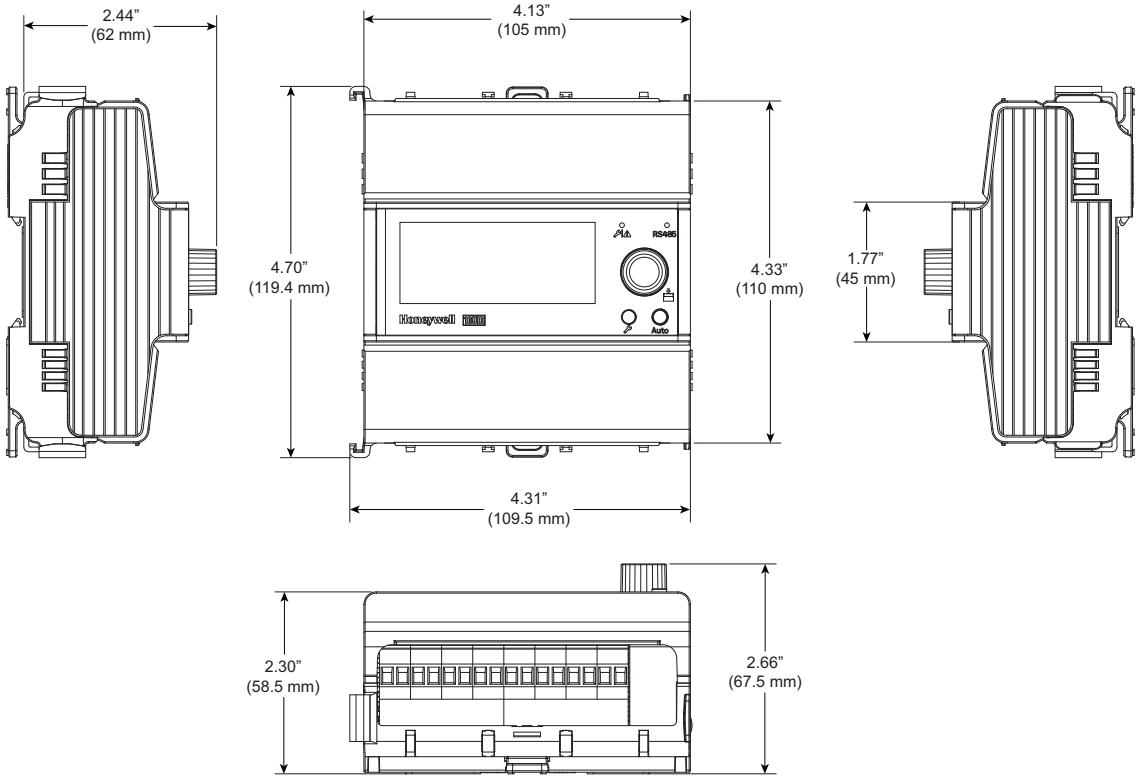
NOTE: These accessories are available by separate order.

ACCSSORIES PART NUMBERS		
	PART NUMBER	**DESCRIPTION**
	TCVR-105-10	Terminal covers for 105mm size I/O modules - pack of 10. Each I/O module includes 2 terminal covers. Point name labels can be printed out from the CPO Studio Tool and Niagara tool and attached to the terminal covers.
	SCRW-TB-2-PUR-50	Screw terminals - 2 way - purple - pack of 50
	SCRW-TB-3-PUR-50	Screw terminals - 3 way - purple - pack of 50
	SCRW-TB-2-BLU-50	Screw terminals - 2 way - blue - pack of 50
	SCRW-TB-3-BLU-50	Screw terminals - 3 way - blue - pack of 50
	SCRW-TB-2-YEL-50	Screw terminals - 2 way - yellow - pack of 50
	SCRW-TB-R-3-ORN-50	Screw terminals for line voltage relays - 3 way - orange - pack of 50
	SCRW-TB-3-BLK-50	Screw terminals - 3 way - black - pack of 50
	SCRW-TB-3-GRY-50	Screw terminals - 3 way - grey - pack of 50
	PUSH-TB-2-PUR-50	Push terminals - 2 way - purple - pack of 50
	PUSH-TB-3-PUR-50	Push terminals - 3 way - purple - pack of 50
	PUSH-TB-2-BLU-50	Push terminals - 2 way - blue - pack of 50
	PUSH-TB-3-BLU-50	Push terminals - 3 way - blue - pack of 50
	PUSH-TB-2-YEL-50	Push terminals - 2 way - yellow - pack of 50
	PUSH-TB-R-3-ORN-50	Push terminals for line voltage relays - 3 way - orange - pack of 50
	PUSH-TB-3-BLK-50	Push terminals - 3 way - black - pack of 50
	PUSH-TB-3-GRY-50	Push terminals - 3 way - grey - pack of 50
	IO-ADPT-S-2	I/O Wiring Adapters - pack of 2 IO-ADPT-S. Provides wiring connections for power and communications which are used to extend I/O modules to another DIN rail or to remotely locate the I/O modules.
	DIN-CLIP-10	DIN rail clip - pack of 10

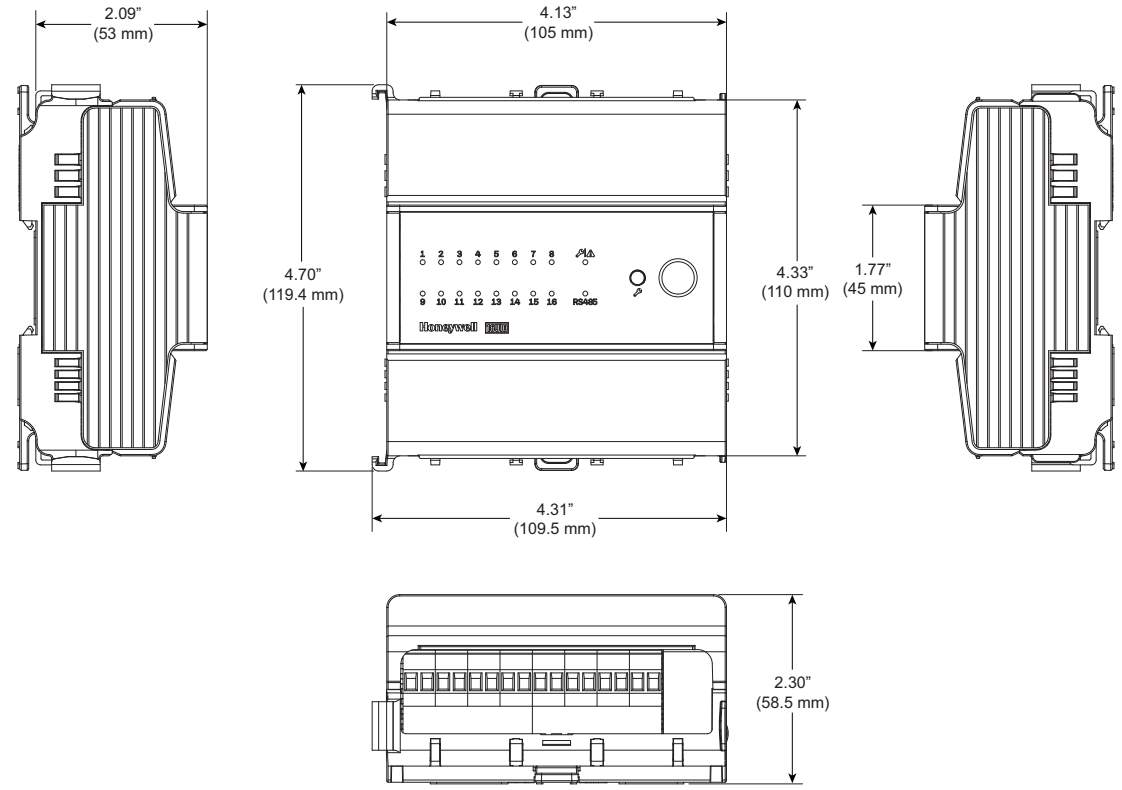
ACCSSORIES PART NUMBERS		
	PART NUMBER	**DESCRIPTION**
	IO-JUMPER-4-10	4 pin relay output jumper - pack of 10. Connects 4 relay commons. Each DO relay module includes 2 jumpers.
	AUX-TRM-16-10	Auxiliary terminal block - 16 way - pack of 10 AUX-TRM-16. Each auxiliary terminal block has two groups of eight internally connected push in terminals for distributing signals/power.
	ENDCOVER-10	Protective end covers to cover the power and comms touch flake connections - pack of 10. The protective end cover is attached to the Advanced Plant Controller when used without an I/O module or the protective end cover is attached to the last I/O module in the panel. The protective end cover has a built in end of line resistor to terminate the RS485 bus. Each Advanced Plant Controller includes one protective end cover.

DIMENSIONS

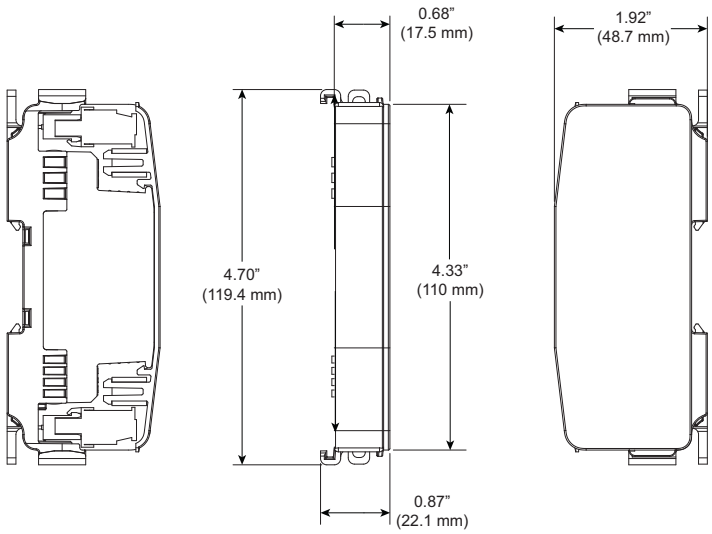
I/O MODULE WITH HOA



I/O MODULE WITHOUT HOA



WIRING ADAPTER



GENERAL SAFETY INFORMATION

- When performing any work (installation, mounting, start-up), all manufacturer instructions and in particular the Installation and Commissioning Instructions (31-00589) are to be observed.
- The I/O module and other related accessories, manual disconnect modules, and the auxiliary terminal packages) may be installed and mounted only by authorized and trained personnel.
- Rules regarding electrostatic discharge should be followed.
- If the I/O module is modified in any way, except by the manufacturer, all warranties concerning operation and safety are invalidated.
- Make sure that the local standards and regulations are observed at all times. Examples of such regulations are VDE 0800 and VDE 0100 or EN 60204-1 for earth grounding.
- Use only accessory equipment which comes from or has been approved by Honeywell.
- It is recommended that devices be kept at room temperature for at least 24 hours before applying power. This is to allow any condensation resulting from low shipping/storage temperatures to evaporate.
- The I/O module must be installed in a manner (e.g., in a lockable cabinet) ensuring that unauthorized persons have no access to the terminals.
- Investigated according to United States Standard UL-60730-1,UL-916, and UL60730-2-9.
- Investigated according to Canadian National Standard(s) C22.2, No. 205-M1983 (CNL-listed).
- Do not open the I/O module, as it contains no user-serviceable parts inside!
- CE declarations according to LVD Directive 2014/35/EU and EMC Directive 2014/30/EU.
- Product standards are EN 60730-1 and EN 60730-2-9 for indoor use only.

SAFETY INFORMATION AS PER EN60730-1 AND UL60730-1

The I/O module is intended for residential, commercial, and light-industrial environments.

The I/O module is an independently mounted electronic control system with fixed wiring.

The I/O module is suitable for mounting in fuse boxes conforming with standard DIN43880 and DIN19, and having a slot height of max. 45 mm.

It is suitable for panel rail mounting on 35 mm standard panel rail (both horizontal and vertical rail mounting possible).

The I/O module is used for the purpose of building HVAC control and is suitable for use only in non-safety controls for installation on or in appliances.

SAFETY INFORMATION AS PER EN60730-1 AND UL60730-1	
Electric Shock Protection	SELV
Pollution Degree	Pollution Degree 2, suitable for use in industrial environments.
Installation	Safety class: Evaluated in final product
Overvoltage Category	Category II: for mains-powered (relay) controls Category I: for 24V powered controls
Rated Impulse Voltage	330 V AC for Category I 2500V AC for Relay output (DO)

SAFETY INFORMATION AS PER EN60730-1 AND UL60730-1	
Automatic Action	Type 1.B(micro-disconnection for relay); Type 1.Y (for others)
Software Class	Class A
Enclosure	According to final product evaluation, meet requirements of IP20
Ball-pressure Test Temperature	>167 °F (75 °C) for all housing and plastic parts >257 °F (125 °C) in the case of devices applied with voltage-carrying parts, connectors, and terminals.
Electromagnetic Interference	Tested at 250 Vac, with the modules in normal condition.
System Transformer	Europe: safety isolating transformers according to IEC61558-2-6 U.S.A. and Canada: NEC Class-2 transformers
Purpose of Control	Operating

WEEE



WEEE Directive 2012/19/EC Waste Electrical and Electronic Equipment Directive

- At the end of the product life, dispose of the packaging and product in an appropriate recycling center.
- Do not dispose of the device with the usual domestic refuse.
- Do not burn the device.

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31-00589-01 | Rev.07-23

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