



# AZP-FLEX

## DESCRIPTION

The AZP-Flex is a general-purpose HVAC controller whose inputs and outputs can be individually configured for use in various applications. Unlike most Controllers, the Flex is not aimed at a specific HVAC sequence or piece of equipment, and instead can be used to perform any outlying functions that are not usually covered by existing AirZoe devices. Outputs can be configured to respond to a variety of standard HVAC input signal types, ranging from temperatures, pressures, gas, tank level, flow, speed, voltages, currents, power and more.

## FEATURES

- Many input types available: Temperature, Dry Contact, Pressure, Gas, Humidity, Current, Voltage, Power, Level, Speed, Flow and Percentage.
- Configurable names and display options for each input and output
- Configurable scales for pressure and gas inputs accommodates any sensor
- Outputs can act based on any local input, or on data received from a network master
- Can receive up to 8 different occupancy states from an NC2000, allowing for versatile lighting control
- Various output logic sequences are available: ON/OFF, PI Loop, Direct or Reverse acting, Pulsed
- Outputs can be interlocked with each other
- Outputs can be automatically overridden based on outside temperature and/or occupancy
- Operates standalone or can be integrated into a AirZoe network
- Outputs can be configured to maintain a fixed setpoint or a variable setpoint based on a reset curve.
- 2 outputs can be linked together with Lead/Lag and Backup capabilities.



## TECHINCAL SPECIFICATIONS

- **Supply:** 24 VAC  $\pm$ 10%, 50/60 Hz, Class 2
- **Power:** 5 VA (consumption), 40 VA (input)
- **Inputs:** 9 analog inputs with individually configurable signal ranges (thermistor, dry contact, 4-20mA, 0-20 mA 0-5 VDC, 1-5 VDC, 0.5-4.5 VDC)
- **Digital Outputs:** 5 triac outputs, 10-30 VAC source, 300 mA max (resettable fuse)
- **Analog Outputs:** 3 x 0-10 VDC outputs, 40 mA max
- **Indication lights (LED):** State of each output / Communication / Power / State of microprocessor
- **Microprocessor:** PIC18F6722, 8 bits, 40 MHz, 128Ko FLASH memory
- **Casing:** Molded ABS, UL94-HB
- **Communication:** Modbus RTU (RS485), up to 127 nodes.
- **Baud Rates:** 9600, 19200, 38400, 57600, 76800, 115200
- **Connection:** Removable screw-type terminal blocks (16 AWG max) and RJ45 modular jacks.
- **Dimensions:** 5.39" x 4.41" x 2.25" (137mm x 112mm x 57mm)
- **Weight:** 1.05 lbs (0.48 kg)
- **Environment:** -4 to 122 oF (-20 to 50 oC) Non-Condensing
- **Certification:** UL916 Energy Management Equipment, CAN/CSA-C22.2, RoHS, FCC part 15: 2012 class B

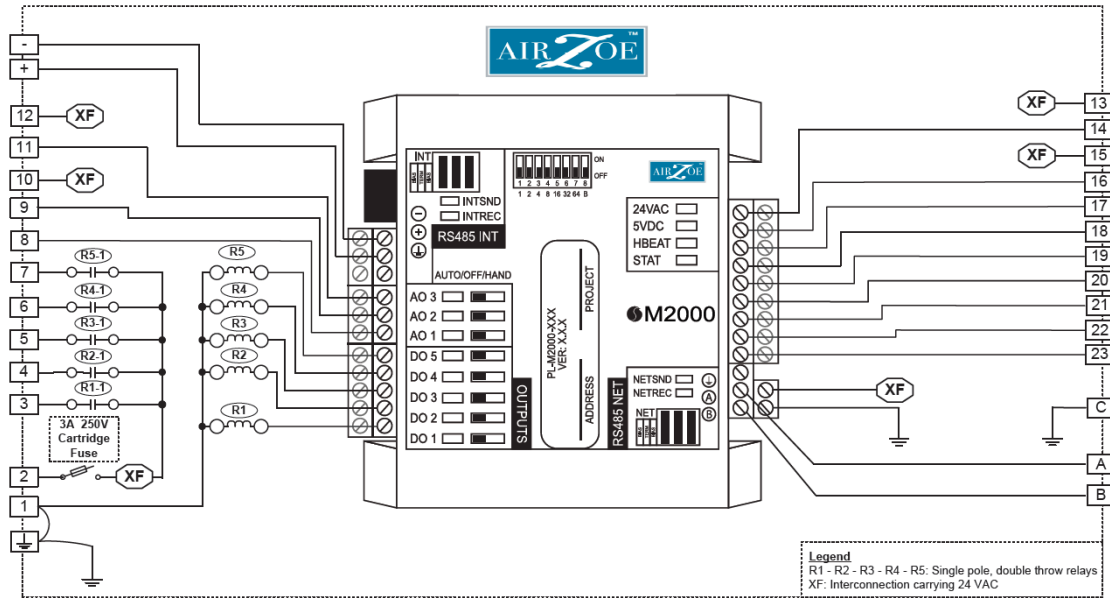
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# AZP-FLEX

## INTERNAL ELECTRICAL WIRING DIAGRAM



TERMINAL	FUNCTION	RATINGS	WIRING DETAILS
	GROUND	N/A	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
1	POWER SUPPLY INPUT COMMON	N/A	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
2	POWER SUPPLY INPUT 24 VAC	24 VAC, 3 A, 60 Hz	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
3	DIGITAL OUTPUT 1	24 VAC, 300 mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
4	DIGITAL OUTPUT 2	24 VAC, 300 mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
5	DIGITAL OUTPUT 3	24 VAC, 300 mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
6	DIGITAL OUTPUT 4	24 VAC, 300 mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
7	DIGITAL OUTPUT 5	24 VAC, 300 mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
8	ANALOG OUTPUT 1	0-10VDC, 40 mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
9	ANALOG OUTPUT 2	0-10VDC, 40 mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
10	POWER SUPPLY 24VAC	24 VAC, 8.5 VA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
11	ANALOG OUTPUT 3	0-10VDC, 40 mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
12	POWER SUPPLY 24VAC	24 VAC, 5 VA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
13	POWER SUPPLY 24VAC	24 VAC, 0.03 A	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
14	ANALOG OUTPUT 4	5 VDC, 20 mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm

TERMINAL	FUNCTION	RATINGS	WIRING DETAILS
15	POWER SUPPLY 24VAC	24 VAC, 6.7 VA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
16	ANALOG OUTPUT 8	5 VDC, 20mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
17	ANALOG OUTPUT 7	5 VDC, 20mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
18	ANALOG OUTPUT 6	5 VDC, 20mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
19	ANALOG OUTPUT 5	5 VDC, 20mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
20	ANALOG OUTPUT 4	5 VDC, 20mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
21	ANALOG OUTPUT 3	5 VDC, 20mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
22	ANALOG OUTPUT 2	5 VDC, 20mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
23	ANALOG OUTPUT 1	5 VDC, 20mA	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
+	M2000 RS485 INT A (+)	N/A	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
-	M2000 RS485 INT B (-)	N/A	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
A	M2000 RS485 NET A (+)	N/A	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
B	M2000 RS485 NET B (1)	N/A	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm
C	COMMON	N/A	Use Copper Conductors Only, 105°C/220°F, Maximum Torque Conductor Mounting: 0.5Nm

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