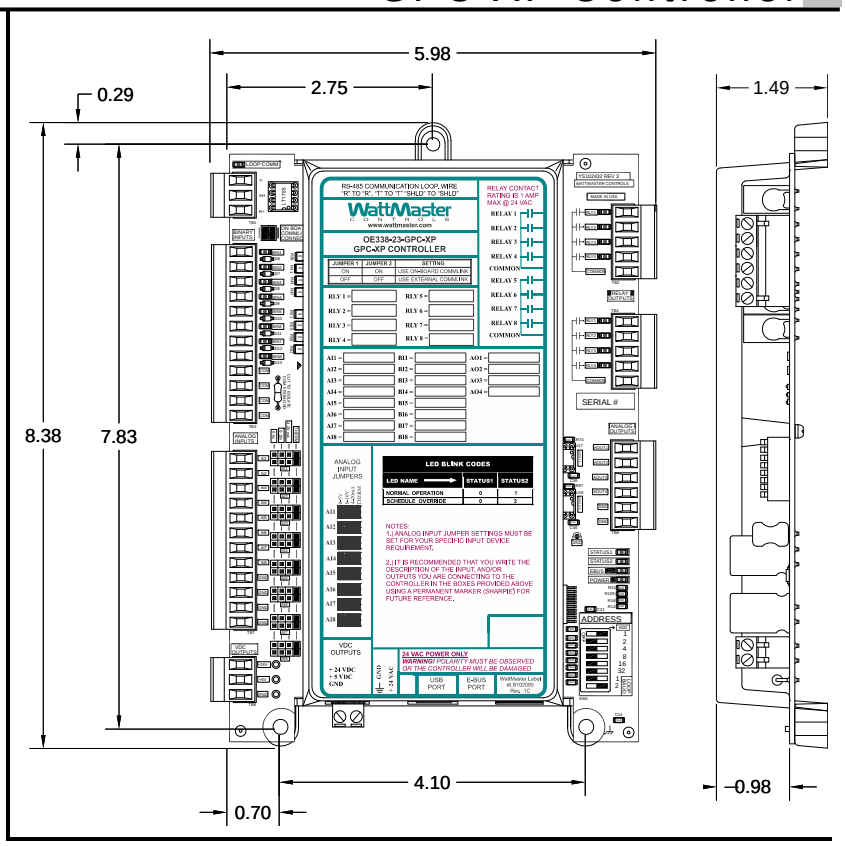
OE338-23-GPC-XP
GPC-XP Controller

Description

The OE338-23-GPCXP GPC-XP Controller is used for controlling equipment or processes that cannot be controlled using a standard HVAC controller.

The GPC-XP provides the flexibility to control, schedule and/or monitor equipment such as unit heaters, exhaust fans, motorized dampers, pumps, and other mechanical equipment. It can also be used for simple boiler, chiller, or refrigeration applications as well as to provide lead/lag start function.

The GPC-XP has an on-board CommLink that provides for stand-alone programming and monitoring via a direct USB connection to a computer running Prism II software. If used on a networked system that has an external CommLink, this on-board CommLink would not be used.



The GPC-XP has (8) configurable analog inputs which will accept signals from thermistor temperature sensors or from 4-20mA, 0-5VDC, or 0-10VDC transmitters. The inputs are set for the desired scaling by means of a jumper bar. Custom formulas created by available math functions and operators can be used in conjunction with the analog inputs to create a calculated value to be used and displayed for a specific analog input. An additional modular input is available for WattMaster communicating sensors. The GPC-XP has (8) wet contact binary inputs that can be configured for either normally open or normally closed operation. Also available are (8) relay outputs for on/off control and (4) analog outputs (0-10VDC) for modulating control. Highest/lowest/average of the analog input values can be used in the GPC-XP logic or broadcast to other controllers on the control system loop. There are (8) separate two events per day schedules which can be assigned to any input or output for operational control or for alarm recognition based on time of day. These schedules can also be configured to broadcast to other WattMaster controllers on the control system loop.

Mounting

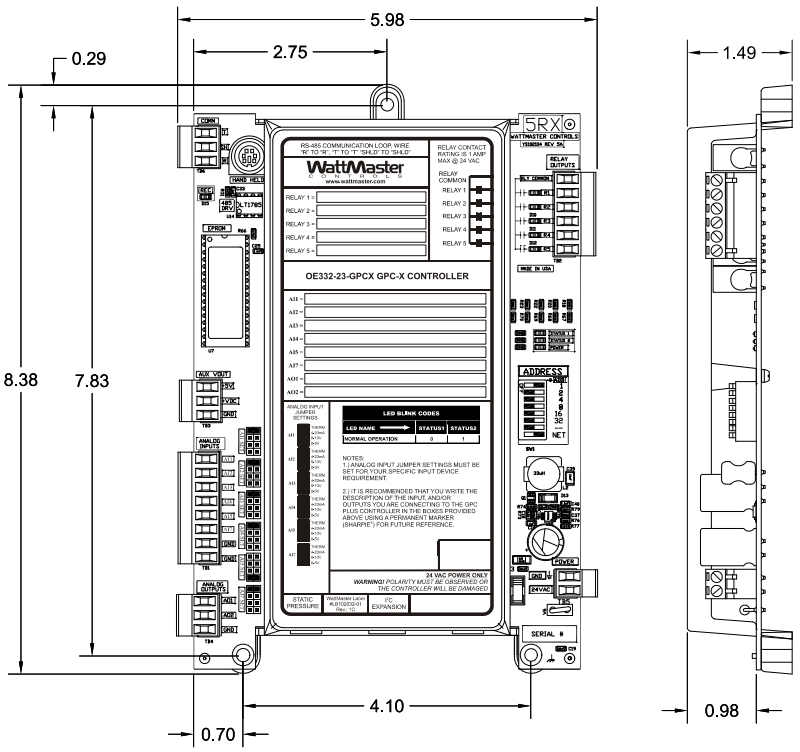
The GPC-XP is provided with an integral plastic enclosure which provides mounting points for mounting inside of a control enclosure. It is recommended that the GPC-XP be mounted in a control enclosure in the building equipment room. An optional factory control enclosure for the GPC-XP is also available.

Technical Data		**OE338-23-GPCXP GPC-XP Controller**	
Power	24 Volt AC	Weight	1 lb.
Power Consumption	8 VA Maximum	Network Connection	RS-485 – 9600 or 57,600 Baud
Operating Temp	-30°F to 150°F	Protocol	HSI Open Protocol Token Passing
Operating Humidity	90% RH Non-Condensing	Communications	E-BUS
Inputs:		***Outputs:***	
Types of Allowed Inputs	Type III-10K Ohm Sensors	Total Relay Qty. On Board	8
	4-20mA	Relay Power Rating	(2 Amp @ 24 VAC)
	0-5VDC & 0-10VDC	Analog Output Qty.	4
	N.O. or N.C. Contact	Analog Output Signal	0-10 VDC
Total Inputs Available	16 Configurable	Lead Lag Scheduling	(1) Output can be Configured
Additional Communicating Sensor Input	1 (Modular)	Schedules Available	(8) 2 Events per day
Three Year Warranty		**WattMaster reserves the right to change specifications without notice**	

OE332-23-GPCX
GPC-X Controller

Description

The OE332-23-GPCX GPC-X Controller is used for controlling equipment or processes that cannot be controlled using a standard HVAC controller. The Prism computer front end software is used to interface with the GPC-X controller functions. The GPC-X Controller provides the flexibility to control, schedule and/or monitor equipment such as unit heaters, exhaust fans, motorized louvers, and other mechanical equipment. The GPC-X has (6) configurable inputs which will accept signals from thermistor temperature sensors, 4-20mA or 0-5VDC or 0-10VDC transmitters or dry contact closures. The inputs are set for the desired input by means of a jumper bar. An additional modular input is provided for connection of an OE271 static pressure sensor. The GPC-X has (5) relay outputs for on/off control and (2) analog outputs. With the addition of the OE358-23-12R, 12 Relay Expansion Module, (4) additional relay outputs (of the 12 total relays on the module) are available for use with the GPC-X, providing for a maximum of (9) usable relay outputs total. The GPC-X also has (5) separate 2 event per day schedules, each with its own optimal start functions built in. In addition the GPC-X provides lead/lag start capabilities.



Mounting

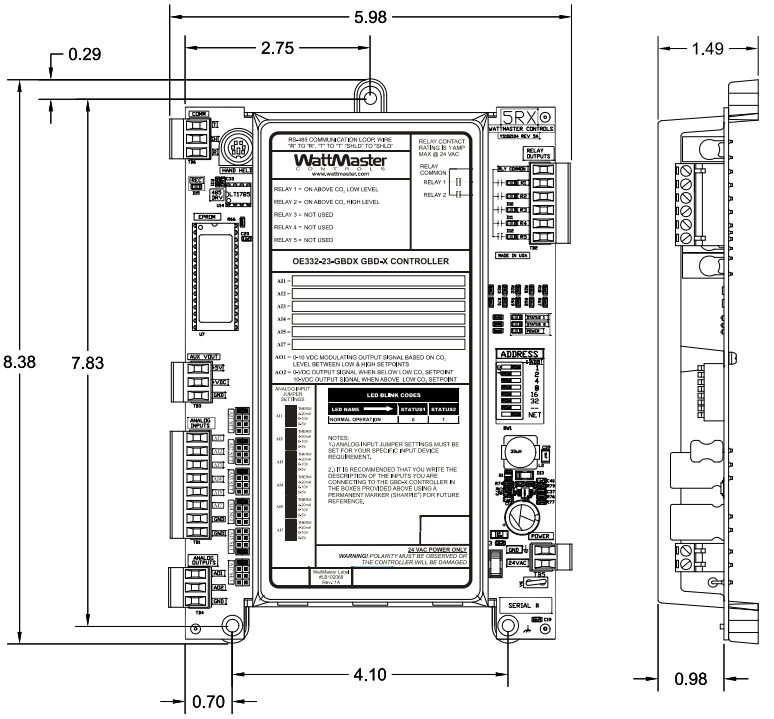
The GPC-X is provided with an integral plastic enclosure which provides mounting points for mounting inside of a control enclosure. It is recommended that the GPC-X be mounted in a control enclosure in the building equipment room. An optional factory control enclosure for the GPC-X is also available.

Technical Data		**OE332-23-GPCX GPC-X Controller**	
Power	24 Volt AC	Weight	1.5 lb.
Power Consumption	8 VA Maximum	Network Connection	RS-485
Operating Temp	10°F to 149°F	Protocol	HSI Open Protocol Token Passing
Operating Humidity	90% RH Non-Condensing	Communications	RS-485 - 9600 Baud
Inputs:		***Outputs:***	
Types of Allowed Inputs	Type III-10kohm sensors	Total Relay Qty. On Board	5
	4-20ma	Total Relay Qty. Available With Optional Expansion Board	9
	0-5VDC & 0-10VDC		
	N.O. or N.C. Binary Contact	Relay Power Rating	(2 Amp @ 24 VAC)
Total Inputs Available	7	Analog Output Qty.	2
Static Pressure Inputs	1 (Modular)	Analog Output Signal	0-10 VDC
Configurable Inputs	6	Optimal Start Schedules	(5) Total - (1) for Each Schedule
Schedules Available	(5) 2 Event per day	Lead Lag Scheduling	(1) Output can be Configured
Three Year Warranty		**WattMaster reserves the right to change specifications without notice**	

OE332-23-GBDX
GBD-X Controller

Description

The OE332-23-GBDX General Broadcast Device Controller provides a method of connecting up to a maximum of (6) Thermistor 10 K Ohm Room Temperature Sensors (OE210, OE211, OE212, and OE213) so that they can then be averaged and globally broadcast to one VCM-X controller on a local loop. The GBD-X also includes the ability to read up to (6) CO_2 Sensors—4-20 ma (OE255 and OE256) and/or 0-5VDC (by others)— and average or find the highest reading and then broadcast the reading to one VCM-X controller on a local loop. It also provides a 0-10 VDC proportional voltage output signal on Analog Output #1 of the GBD-X. The GBD-X calculates and varies this signal depending on the level of CO_2 in the space as it rises from an adjustable minimum setting to an adjustable maximum level. Also, if desired, Analog Output #2 can provide a 10.0 VDC fixed output signal whenever the CO_2 is above the minimum setpoint. In addition, Relay Output #1 activates whenever the CO_2 rises above the minimum setpoint and deactivates when it falls 5 PPM below the minimum setpoint. Relay Output #2 activates whenever the CO_2 rises above the maximum setpoint and deactivates when it falls 5 PPM below the maximum setpoint.



When more than (6) CO_2 or Temperature Sensors are to be used, a second GBD-X controller can be connected to the VCM-X and would then allow the use of from (7) to (12) Room Temperature Sensors or CO_2 Sensor inputs. Each GBD-X controller can be used for either temperature averaging or CO_2 averaging, but not both on the same GBD-X controller. When both are required at least (2) GBD-X controllers, one configured for CO_2 control and the other configured for Temperature averaging must be used. Up to a combined (16) additional GBD-X controllers can be daisy-chained together for a total of (18) GBD-X controllers on one loop. Either a CommLink or MiniLink PD must always be installed on the controls system when using the GBD-X Controller due to its broadcast requirements. A personal computer with Prism software installed or the System Manager Touch Screen is also required to program the GBD-X controller.

Mounting

The GBD-X is provided with an integral plastic enclosure which provides mounting points for mounting inside of a control enclosure. It is recommended that the GBD-X be mounted in a control enclosure in the building equipment room.

Technical Data		**OE332-23-GBDX GBD-X Controller**	
Power	24 Volt AC	Weight	1.5 lb.
Power Consumption	8 VA Maximum	Network Connection	RS-485
Operating Temp	10°F to 149°F	Protocol	HSI Open Protocol Token Passing
Operating Humidity	90% RH Non-Condensing	Communications	RS-485 - 9600 Baud
Inputs Available		***Outputs Available:***	
Types and Quantity of User Selectable Inputs (one of the 3 options at right)	Type III-10kohm input (6)	AO1 Output	0-10 VDC Variable Signal
	4-20ma input (6)	AO2 Output	10 VDC Fixed Signal
	0-5 VDC (6)	R1 Output	Contact Closure
		R2 Output	Contact Closure
Three Year Warranty		**WattMaster reserves the right to change specifications without notice**	

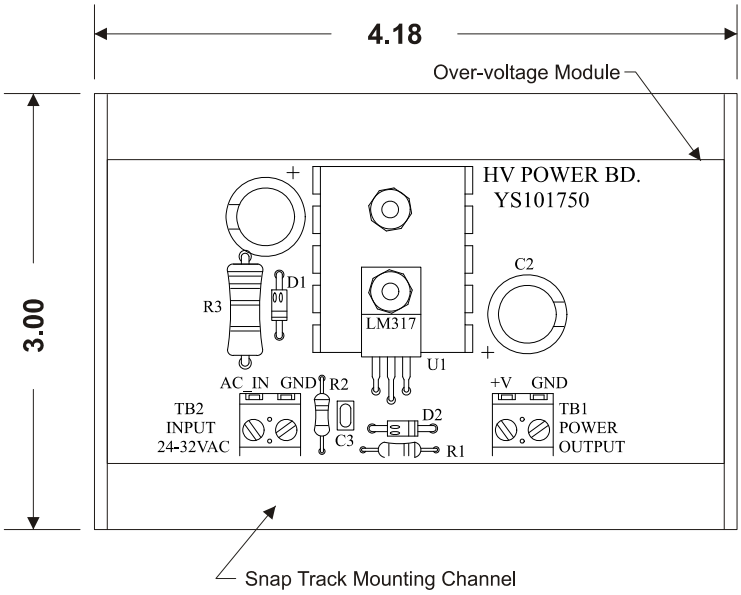
OE268 Over-voltage Module

Description

The OE268 Over-voltage Module is designed to protect against higher than normal incoming control voltages that exceed the normal 24VAC +/-10%. WattMaster recommends the use of the OE268 Over-voltage Module anytime the measured voltage to the controller is above 27 VAC. The circuitry contained on the OE268 Over-voltage Module will safely limit the AC control voltages being supplied to the devices connected to it.

The OE268 Over-voltage Module is specifically designed to work with and protect the following products. The groups or items listed below on each line, require that you use (1) OE268 Over-voltage Module to power that group or item.

- VCM Controller and a 2 or 4 Slot Expansion Base Board
- GPC Plus Controller and a 2 Slot Expansion Base Board
- GBD Controller
- MODGAS or MODGASII Controller
- MHGRV, MHGRVII or MHGRVIII Controller



Mounting

The OE268 Over-voltage Module is supplied mounted in a plastic Snap Track channel. Carefully remove the module from the Snap Track by sliding it out of the Snap Track channel. Mount the Snap Track to the control panel or enclosure base using one of the supplied sheet metal screws to secure it through the pre-drilled hole in the Snap Track channel. If desired, the second supplied screw can be used to further secure the Snap Track by drilling a second hole and using it to fasten the Snap Track. Carefully slide the Over-voltage Module back into the Snap Track Channel to complete the mounting procedure.

Wiring

Warning: Correct Polarity must be observed on all wiring connections or damage to the controller and/or the OE268 may result. Wire sizes, types and wiring practices used should conform to all applicable national & local electric code requirements.

- First remove the power from the 24 VAC control transformer supplying the controller's low voltage power.
- Connect the TB2 "Power Input" terminal labeled "AC IN" to the 24VAC control supply voltage
- Connect the TB2 "Power Input" terminal labeled "GND" to the 24VAC "common or GND"
- Connect the TB1 "Power Output" terminal "+V" to the controller's "24 VAC" power input terminal
- Connect the TB1 "Power Output" terminal "GND" to the controller's "GND" power input terminal
- Reconnect the power to the control transformer and observe controller for correct operation.

Technical Data		**OE268 Over-voltage Module**	
Input Voltage	22 to 32 VAC	Power Consumption	Less Than 2 Watts
Output Voltage	30 VDC Nominal	Wiring Connections	Terminal Blocks
Operating Temperature	-30°F to +150° F	Operating Humidity	5-95% RH Non-Condensing
One Year Warranty		**WattMaster reserves the right to change specifications without notice**	