



# Harrier™ Controllers

Electronic Chemical Injection Rate Controllers



PROVEN QUALITY. LEADING TECHNOLOGY.

# Harrier™ + Chemical Injection Controllers

## Electronic Chemical Injection Rate Controllers with Remote Monitoring

The Harrier+ unlocks features and capabilities that allow you to optimize your chemical usage saving you time and money!

### How does it work?

The Harrier+ controller the injection rate via timing, cycle count or flow control. The controller:

- Uses patent pending, adaptive injection rate controls that provide accuracy of +/- 1%
  - The controllers use sensors along with Graco software to adjust to changes in the application such as well pressure or battery voltage
- Controls and monitors your system remotely with a cellular connection and web app
- Available as a standalone controller or in the power box & control panel kits



Harrier+ Controller

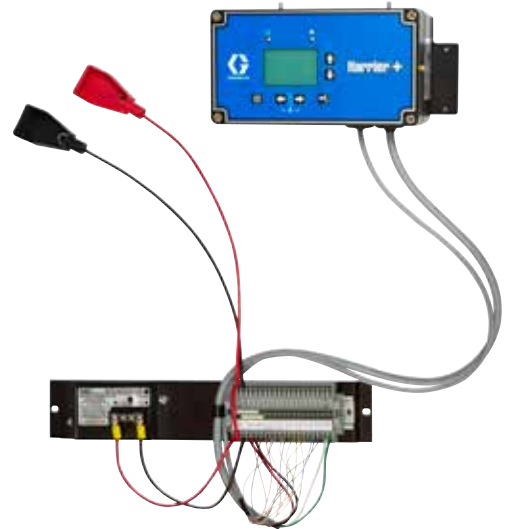


Monitor your Harrier+ controller right from your cell phone!

### Office or Remote Access

The Harrier+ controller includes remote connectivity, allowing you to monitor, control and calibrate your system away from your injection site via cellular or SCADA connection. You don't have to be on site – monitor your system from your cell phone!

- Operates remotely
- Receives maintenance notifications and alarms
- Generates chemical usage reports easily



Harrier+ Control Panel Kit B32624

## Return on Investment

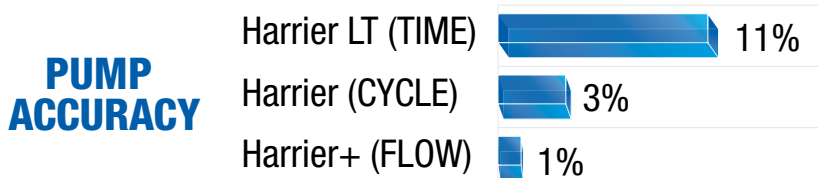
### Calculate Your Savings

See how much you can save when you use Graco's Harrier+ Controller.

| EXISTING SYSTEM         |                | HARRIER+ SYSTEM         |              |
|-------------------------|----------------|-------------------------|--------------|
| Chemical Usage (GPD)    | 10             | Chemical Usage (GPD)    | 10           |
| Waste Percentage        | 10%            | Waste Percentage        | 1%           |
| Waste Per Day (gallons) | 1              | Waste Per Day (gallons) | 0.1          |
| Cost Per Gallon         | \$20           | Cost Per Gallon         | \$20         |
| Waste Per Year Cost     | <b>\$7,300</b> | Waste Per Year Cost     | <b>\$730</b> |

**SAVINGS OVER ONE YEAR!! \$6,570**

The Pump Accuracy chart below shows how your dosing precision improves as you move up the Harrier controller product line.



# Technical Specifications

## Harrier+ Chemical Injection Controllers

### Input Contact

|   |  |
|---|--|
| Power Source (DC) - models B32627, B32629, B32631 | 9 - 26 VDC   |
| Power Source (AC) - models B32628, B32630, B32632 | 100 VAC to 240 VAC - 50/60 Hz  |
| Power consumption, max load (DC)                  | 416 Watts  |
| Power consumption, max load (120 VAC)             | 600 Watts  |
| Power consumption, max load (240 VAC)             | 720 Watts  |
| Cycle Control Pressure Input                      | Normally open cycle switch   |
| Remote Disable (Auxiliary) Input                  | Configurable active high/low for normally open or normally closed switch |

### Outputs

|                            |   |
|----------------------------|---|
| Pump Control               | Pump Control Voltage = Power Source     |
| Voltage                    | Power Source                            |
| Max Switching Voltage (DC) | 26 VDC                                  |
| Max Switching Voltage (AC) | 240 VAC                                 |
| Max Switching Current (DC) | 25A (For Models B32627, B32629, B32631) |
| Max Switching Current (AC) | 5A (120 VAC), 3A (240 VAC)              |
| Minimum Switching Capacity | 100 mA @ 5 VDC                          |
| Enclosure Material         | Polycarbonate + PET                     |
| Membrane Material          | Polyester                               |

### Environmental

|                             |                                |
|-----------------------------|--------------------------------|
| Protection Grade            | Type 1                         |
| Operating Temperature Range | -40°F to 131°F (-40°C to 55°C) |
| Storage Temperature         | -13°F to 131°F (-25°C to 55°C) |

### Approvals

|  |
|--|
| Certified to CAN/CSA C22.2 No. 14 conforms to UL 508   |
| UL approved for Class 1 Division 2 Hazardous Locations |
| CE approved for applications outside of North America  |



# Ordering Information

### DC Operated Harrier+ Controller

| Kit No. | Description   |
|---------|---|
| B32627  | Harrier+ Controller, DC Power, Cellular – USA only                    |
| B32629  | Harrier+ Controller, DC Power, Cellular – Global (limited use in USA) |
| B32631  | Harrier+ Controller, DC Power, SCADA via Modbus                       |
| B32643  | Harrier+ Controller, DC Power, CDMA                                   |

### AC Operated Harrier+ Controller

| Kit No. | Description   |
|---------|---|
| B32628  | Harrier+ Controller, AC Power, Cellular – USA only                    |
| B32630  | Harrier+ Controller, AC Power, Cellular – Global (limited use in USA) |
| B32632  | Harrier+ Controller, AC Power, SCADA via Modbus                       |
| B32644  | Harrier+ Controller, AC Power, CDMA                                   |

### Control Box Kits (DC Powered Harrier+ controllers only)

| Kit No. | Description  |
|---------|--|
| B32916  | Harrier+ Control Box, DC Power, Cellular – USA only                    |
| B32912  | Harrier+ Control Box, DC Power, Cellular – Global (limited use in USA) |
| B32914  | Harrier+ Control Box, DC Power SCADA via Modbus                        |
| B32910  | Harrier+ Control Box, DC Power, CDMA                                   |

### Control Panel Kits

| Kit No. | Description  |
|---------|--|
| B32701  | Harrier+ Global Control Panel Kit – USA only           |
| B32624  | Harrier+ Global Control Panel Kit (limited use in USA) |
| B32626  | Harrier+ SCADA Control Panel Kit                       |
| B32625  | Harrier+ CDMA Control Panel Kit                        |

### Accessories

| Kit No. | Description                     |
|---------|---------------------------------|
| B32699  | Harrier+ CDMA High Gain Antenna |

# Harrier™ AC Controller

## Electronic Chemical Injection Rate Controllers

Closely control and monitor your chemical injection rate via timer and/or cycle control to help optimize your system. It's easy, efficient and productive – saving you time and money.

### Features

- Used with AC operated pumps
- Pump-mount and wall-mount option
- ETL listed for electrical safety to UL 508 and CSA 22.2 No. 14
- NEMA 4X enclosure
- Auxiliary input port
- Simple setup and control

## Technical Specifications

| Input Contact               |  |
|-----------------------------|--|
| Power Source AC             | 100-240 VAC - 50/60 Hz                 |
| Power Consumption           | 720 Watts                              |
| Cycle Input (optional)      | 24 VDC cycle switch                    |
| Auxiliary Input (optional)  | Normally open switch                   |
| Outputs                     |  |
| Pump Control Voltage        | Pump Control Voltage = Power Source    |
| Max Switching Voltage       | 240 VAC                                |
| Max Switching Current       | 5A (120 VAC) / 3A (240 VAC)            |
| Min Switching Current       | 100 mA                                 |
| Material and Environmental  |  |
| Protection Grade            | UL/NEMA 4X                             |
| Enclosure Material          | ABS + Polycarbonate                    |
| Membrane Material           | Polyester                              |
| Maximum Humidity            | 90% Relative Humidity (non-condensing) |
| Operating Temperature Range | -40°F to 131°F (-40°C to 55°C)         |
| Storage Temperature         | -40°F to 176°F (-40°C to 80°C)         |



AC operated Harrier mounted on a Wolverine



Harrier AC Controller

## Ordering Information

### Harrier AC Models and Replacement Kits

| Part No. | Description                                    |
|----------|--|
| B32691   | Harrier AC Controller - Remote Mount*          |
| B32692   | Harrier AC Controller - Pump Mount*            |
| B32695   | Auxiliary Harness Kit                          |
| B32696   | Harrier AC Controller Mount Kit                |
| B32697   | Harrier AC 5A Fuse Kit for 120 VAC             |
| B32698   | Harrier AC 3A Fuse Kit for 240 VAC             |
| B32480   | Cycle Count Accessory Kit for All VAC Motors** |

\*Controller mount kit (B32696) included

\*\*Required for cycle control

# Harrier™ EZ and Harrier Chemical Injection Rate Controllers

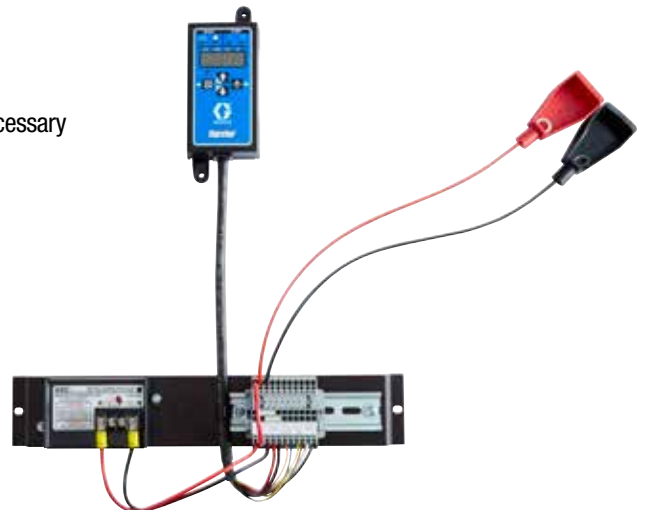
Closely control and monitor chemical use and collect critical operating information for reducing costs and improving processes. It's easy, efficient and productive – saving you time and money.

## Harrier EZ and Harrier Controllers

- Used for DC Pumps
- Control injection rates via timer or cycle count
- ETL listed for electrical safety to UL 508 and CSA 22.2 No. 14
- Simple user interface for setup and control
- Multiple inputs for system controls allow you to only run when it's necessary



Harrier EZ and Harrier Controllers



Harrier Control Panel Kit  
B32622

## Technical Specifications

### Harrier EZ and Harrier Chemical Injection Rate Controllers

| Input Contact               |  |
|-----------------------------|--|
| Power Source                | DC 9 - 26 VDC                          |
| Power Consumption           | 1 Watt                                 |
| Outputs                     |  |
| Pump Control                | Pump Control Voltage = Power Source    |
| Voltage                     | Pump Control Voltage = Power Source    |
| Max Switching Voltage       | 26 VDC                                 |
| Max Switching Current       | 16A (DC)                               |
| Min Switching Current       | 100 mA (DC)                            |
| Protection Grade            | IP54 for indoors                       |
| Enclosure Material          | Polycarbonate + PET                    |
| Membrane Material           | Polyester                              |
| Maximum Humidity            | 90% Relative Humidity (non-condensing) |
| Operating Temperature Range | -40°F to 131°F (-40°C to 55°C)         |
| Storage Temperature         | -40°F to 176°F (-40°C to 80°C)         |

## Ordering Information

### Harrier EZ and Harrier Controllers

| Kit No. | Description  |
|---------|--|
| B32001  | Harrier Controller   |
| B32110  | Harrier EZ Controller  |
| B32622  | Harrier Control Panel Kit (12A charge controller)                                      |
| B32623  | Harrier Control Panel Kit (8A charge controller)                                       |
| B32107  | Cycle Counter (All motors)   |
| B32106  | Temperature Switch   |
| B32070  | 15A Fuses (10)   |
| B32071  | 25A Fuses (10)   |
| B32950  | Harrier LT Control Box for Small Motor (8A charge controller)                          |
| B32951  | Harrier LT Control Box for Small Motor and Premium Solar Panel (12A charge controller) |
| B32900  | Harrier Control Box for Small Motor (8A charge controller)                             |
| B32901  | Harrier Control Box for Small Motor and Premium Solar Panel (12A charge controller)    |
| B32902  | Harrier Control Box for Large Motor (8A charge controller)                             |
| B32903  | Harrier Control Box for Large Motor and Premium Solar Panel (12A charge controller)    |
| B32611  | Harrier Solar Control Panel Replacement  |



## ABOUT GRACO

### PROVEN QUALITY. LEADING TECHNOLOGY.

Founded in 1926, Graco is a world leader in fluid handling systems and components. Graco products move, measure, control, dispense and apply a wide range of fluids and viscous materials used in vehicle lubrication, commercial and industrial settings.

The company's success is based on its unwavering commitment to technical excellence, world-class manufacturing and unparalleled customer service. Working closely with qualified distributors, Graco offers systems, products and technology that set the quality standard in a wide range of fluid handling solutions. Graco provides equipment for spray finishing, protective coating, paint circulation, lubrication, and dispensing sealants and adhesives, along with power application equipment for the contractor industry. Graco's ongoing investment in fluid management and control will continue to provide innovative solutions to a diverse global market.

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