

# UPZCP-1

Single-zone pump control

Installation and operating instructions



**GRUNDFOS** 

# English (US) Installation and operating instructions

## Original installation and operating instructions

These installation and operating instructions describe Grundfos UPZCP-1. Sections 1-5 give the information necessary to be able to unpack, install and start up the product in a safe way.

Sections 6-9 give important information about the product, as well as information on service and disposal of the product.

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## WARNING

Prior to installation, read these installation and operating instructions. Installation and operation must comply with local regulations and accepted codes of good practice.



This booklet should be left with the owner of the pump for future reference and information regarding its operation.

## WARNING

The use of this product requires experience with and knowledge of the product.



Persons with reduced physical, sensory or mental capabilities must not use this product, unless they are under supervision or have been instructed in the use of the product by a person responsible for their safety. Children must not use or play with this product.

## 1. Limited warranty

New equipment manufactured by seller or service supplied by seller is warranted to be free from defects in material and workmanship under normal use and service for a minimum of twelve (12) months from date of installation, eighteen (18) months from date of shipment, unless otherwise stated in product warranty guide (available upon request). In the case of spare or replacement parts manufactured by seller, the warranty period shall be for a period of twelve months from shipment. Seller's obligation under this warranty is limited to repairing or replacing, at its option, any part found to its satisfaction to be so defective, provided that such part is, upon request, returned to seller's factory from which it was shipped, transportation prepaid. Parts replaced under warranty shall be warranted for twelve months from the date of the repair, not to exceed the original warranty period. This warranty does not cover parts damaged by decomposition from chemical action or wear caused by abrasive materials, nor does it cover damage resulting from misuse, accident, neglect, or from improper operation, maintenance, installation, modification or adjustment. This warranty does not cover parts repaired outside seller's factory without prior written approval. Seller makes no warranty as to starting equipment, electrical apparatus or other material not of its manufacture. If purchaser or others repair, replace, or adjust equipment or parts without seller's prior written approval, seller is relieved of any further obligation to purchaser under this paragraph with respect to such equipment or parts, unless such repair, replacement, or adjustment was made after seller failed to satisfy within a reasonable time seller's obligations under this paragraph. Seller's liability for breach of these warranties (or for breach of any other warranties found by a court of competent jurisdiction to have been given by seller) shall be limited to: (a) accepting return of such equipment exw plant of manufacture, and (b) refunding any amount paid thereon by purchaser (less depreciation at the rate of 15 % per year if purchaser has used equipment for more than thirty [30] days), and canceling any balance still owing on the equipment, or (c) in the case of service, at seller's option, redoing the service, or refunding the purchase order amount of the service or portion thereof upon which such liability is based. These warranties are expressly in lieu of any other warranties, express or implied, and seller specifically disclaims any implied warranty of merchantability or fitness for a particular purpose, and in lieu of any other obligation or liability on the part of the seller whether a claim is based upon negligence, breach of warranty, or any other theory or cause of action. In no event shall seller be liable for any consequential, incidental, indirect, special or punitive damages of any kind. For purposes of this paragraph, the

equipment warranted shall not include equipment, parts, and work not manufactured or performed by seller. With respect to such equipment, parts, or work, seller's only obligation shall be to assign to purchaser the warranties provided to seller by the manufacturer or supplier providing such equipment, parts or work. No equipment furnished by seller shall be deemed to be defective by reason of normal wear and tear, failure to resist erosive or corrosive action of any fluid or gas, purchaser's failure to properly store, install, operate, or maintain the equipment in accordance with good industry practices or specific recommendations of seller, including, but not limited to seller's installation and operation manuals, or purchaser's failure to provide complete and accurate information to seller concerning the operational application of the equipment.

## 2. General information

UPZCP-1 is a single-zone pump control relay for domestic hydronic heating systems. The relay provides control when zoning with pumps or low voltage zone valves.

### 2.1 Symbols used in this document

#### WARNING



If you do not observe these safety instructions, it may result in personal injury.

#### WARNING



If you do not observe these instructions, it may lead to electric shock with consequent risk of serious personal injury or death.

## 3. Receiving the product

Examine the components carefully to make sure no damage has occurred to the pump during shipment.

## 4. Installing the product

### WARNING

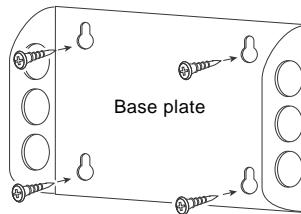


Electrical shock and potential circuit damage. Disconnect power supply before beginning installation. All wiring must comply with national and local electrical codes, ordinances and regulations. Failure to follow electrical codes could result in serious personal injury, death, and property damages.

### 4.1 Mechanical installation

#### 4.1.1 Installing the base

Attach the base firmly to the wall surface with four screws and anchors using the key holes provided.



**Fig. 1** Attach the base plate to the wall with screws and anchors

## 4.2 Electrical connection

### 4.2.1 Overview

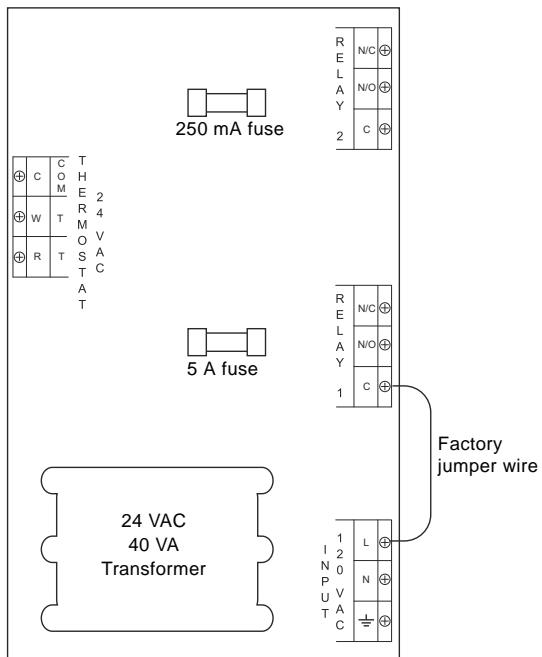


Fig. 2 UPZCP-1 electrical board layout

## 4.2.2 Wiring

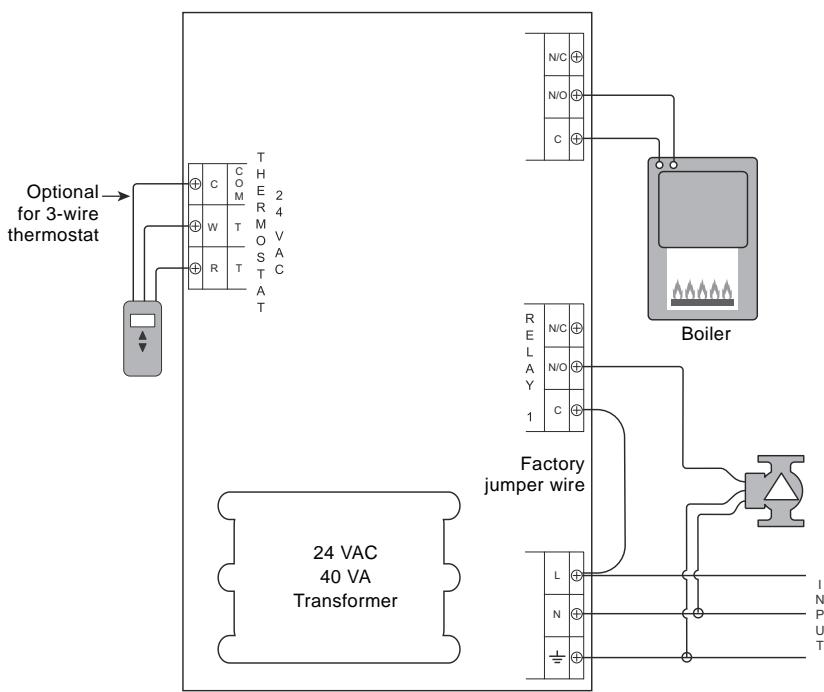


Fig. 3 UPZCP-1 single-zone, one thermostat

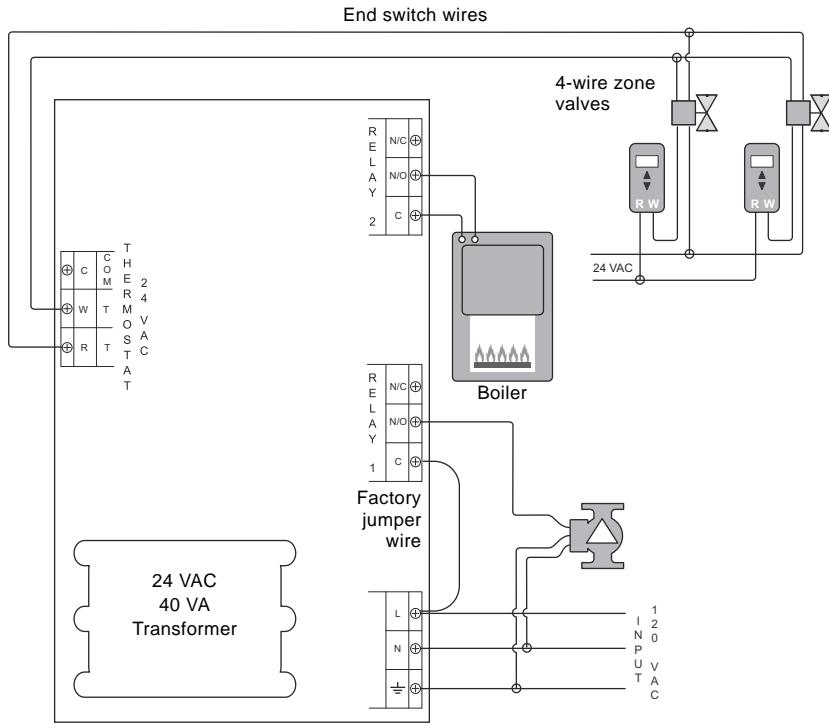


Fig. 4 UPZCP-1 multiple zones

TM06 5592 5015

## 5. Starting up the product

### 5.1 LED diagnostics

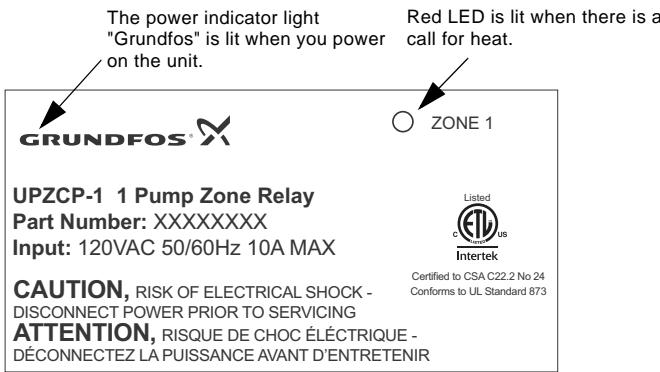


Fig. 5 Indicator lights located on the control plate

## 6. Product introduction

### 6.1 Features and benefits

- Compatible with 2-, 3-, and 4-wire low voltage controllers or thermostats.
- Wiring ease with 120 VAC, ground and low voltage screw terminal inputs.
- Low voltage end-switch output terminals for the zone valves.
- Front facing LED indicator lights on the cover.
- Side mounted terminal connections for ease of wiring and installation.

### 6.2 Identification

#### 6.2.1 Model

Model	Description
UPZCP-1	Single pump zone control

#### 6.2.2 Production code

The production code represents the date of manufacture. You can find the production code on the circuit board and the carton label.

Example:

PC 1542 = year 2015, week 42.

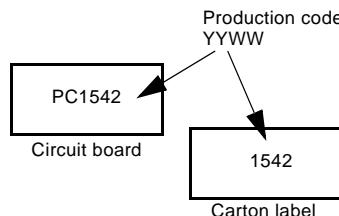


Fig. 6 Locating production code

## 7. Servicing the product

### 7.1 Service parts

Part	Description
5 A fuse	Kit, UPZC pump fuse, 5-pack
250 mA fuse	Kit, UPZC transformer fuse, pump board 250 mA, 5-pack
500 mA fuse	Kit, UPZC transformer fuse, pump board 500 mA, 5-pack

## 8. Technical data

### UPZCP-1 single zone pump control relay

Model	UPZCP-1
Input power 60 Hz	120 VAC
Transformer voltage	24 VAC, 40 VA, Class 2
Thermostat output [A]	0.125
Maximum single phase motor rating, per zone [A]	5
Maximum combined load rating: output @ 120 VAC [A]	10
Temperature range (storage) [°F (°C)]	50-100 (10-38)
Temperature range (maximum operation) [°F (°C)]	0-100 (-18 - +38)
Maximum operating humidity range [%] RH	90
Number of knockouts	6
Size of knockouts [in. (mm)]	0.875 (22)
Dimensions, W x H x D [in. (mm)]	5.93 x 4.80 x 2.36 (151 x 122 x 60)
Approvals	CSA 22.2 No. 24/UL Standard 873
Relay type	Sealed
Cover panel	ABS - fire rated
Base material	Galvanized steel
Terminal block (side mounted)	PA66
Front display lights	LED

## 9. Disposing of the product

This product or parts of it must be disposed of in an environmentally sound way:

1. Use the public or private waste collection service.
2. If this is not possible, contact the nearest Grundfos company or service workshop.

Subject to alterations.

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