# Zip InLine



Electronically controlled instantaneous water heaters.

## Model number: DEX Next, DEX12 Next



#### Contents

Safety instructions
Operation instruction
1. Description of the appliance
2. Environment and recycling
3. How to use
Main screen6
Main menu
Statistics
Settings
User9
Device Information
Top-up heating
How to save energy
Venting after maintenance work
Cleaning and maintenance
4. Trouble-shooting and service
5. Product data sheet in accordance with EU regulation - 812/2013 814/201311
6 Warranty 12

#### Installation instruction

1.	Overview	13
2.	Technical specifications	14
3.	Dimensions	14
4.	Installation	15
	Installation site	15
	Mounting accessories	15
	Installing the wall bracket	16
	Installing connection pieces	16
	Installing the appliance	17
5.	Direct connection	18
6.	Electrical connection	19
	Wiring diagram DEX Next	19
	Wiring diagram DEX12 Next	19
	Structural prerequisites	19
	Load shedding relay (DEX Next only	19
	Electrical connection from below	20
	Electrical connection from above (DEX Next only)	20
7.	Initial operation	21
	Selection of power rating	21
	Reinstallation	22
	Shower application	22
	Locking function	22
8.	Maintenance work	23
	Cleaning and replacing the filter strainer	23
	Cleaning and replacing the filter strainer if direct connected	23

The documents supplied with the device must be stored carefully.

#### Safety instructions

#### **IMPORTANT:**

PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS AND CAUTIONS. USE THIS PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY, AND WILL INVALIDATE THE WARRANTY. RETAIN THESE INSTRUCTIONS FOR FUTURE USE.

## **MARNINGS**

- Installation, commissioning and maintenance of this appliance must only be carried out by a competent installer who will then be responsible for adhering to all relevant standards and requlations.
- If inlet temperature is up to 65 °C (eq. fed from a solar supply) mixing with cold water will be required to ensure a safe temperature at the outlet.
- Do not remove the front cover under any circumstances before switching off the mains electrical supply to the unit.
- Never make technical modifications, either to the appliance itself or the electrical leads and water pipes.
- $\stackrel{\square}{=}$  The appliance must be earthed at all times.
- Pay attention to the fact that water temperatures in excess of approx. 43 °C are perceived as hot, especially by children, and may cause a feeling of burning. Please note that the fittings and taps may be very hot when the appliance has been in use for some time.
- The values stated on the rating plate must be observed.
- In case of malfunction, disconnect the mains power supply immediately. In case of leaks, cut off the mains water supply instantly. Repairs must only be carried out by the customer service department or an authorised professional.
- This appliance can be used by children aged 3 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be performed by children without supervision.
- If the appliance is factory equipped with a power supply cable, it must be replaced with an original spare cable from the manufacturer in case of damage by an authorised technician in order to avoid any hazards.
- In accordance with EN 60335, the appliance must be permanently connected to the supply through an isolating switch with a contact separation of at least 3 mm in all poles and be protected by a suitably rated RCD.
- The wall bracket must be secured with the supplied screws and dowels. The appliance must be secured to the wall bracket. The appliance may only be operated if it has been properly mounted on the wall bracket.
- The required water resistance may not fall below the value stated on the rating plate at any time.

#### To observe additionally for pressureless installation:

- The water outlet behind the devices must not be blocked, and the water flow must not be restricted.
- The water outlet facilities, such as shower heads must be decalcified regularly. Deposits must be removed at regular intervals.
- Only the fittings recommended by the manufacturer may be used.
- If the appliance is exclusively connected to a single shower, only the shower heads recommended by the manufacturer may be used. No other fittings or appliances which decrease the water flow to the shower may be installed.

## (!) CAUTIONS

- Optimum operation is ensured at a water flow pressure of 0.2 to 0.4 MPa (2-4 bar). The appliance must not be subjected to pressure exceeding 1.0 MPa (10 bar).
- The appliance must only be used when correctly installed and in perfect working order.
- The appliance must be installed in a frost-free room and must never be exposed to frost.
- The DEX and DBX range is not intended for use with thermostatic mixing valves or taps. If thermostatic mixing valves or taps are to be used, their compatibility with the instantaneous water heater must be verified under site operating conditions.
- The appliance must be completely filled with water before being switched on.
- Before commissioning for the first time and each time the appliance or the piping system is emptied (e.g. due to work on the plumbing system or maintenance), the appliance must be purged by opening and closing the hot water tap until all air has been eliminated from the water heater and no more air emerges, before re-connecting to the electrical supply.
- The appliance must only be used for heating wholesome (or cat 1) water. The specific water resistance must not fall below the required value indicated on the rating plate. The appliance must not be used for any other purpose.
- Incoming water temperature must not exceed that stated in Technical data.
- The Zip InLine is intended for connection to mains supply only. In any other case please contact Zip on 0345 6 005 005 for advice.
- Zip Water UK cannot be held liable for any damages caused by failure to observe these instructions.

## **Operation instruction**

Note: Carefully read the enclosed safety instructions through in full <u>before</u> the appliance is installed, put into service and used and follow them in the further steps and during use!

#### 1. Description of the appliance



The E-convenience instant water heater DEX Next / DEX12 Next is a fully electronically controlled instantaneous water heater with graphics-enabled e-paper display and sensor keys for a convenient and efficient water supply to one or more tap outlets.

Its electronic control regulates the power consumption depending on the selected outlet temperature, the respective inlet temperature and the flow rate, thus reaching the set temperature exactly to the degree and keeping it constant in case of water pressure fluctuations. The required outlet temperature can be entered via the sensor keys within a range between 20 °C and 60 °C and can be read off the e-paper display.

The DEX Next / DEX12 Next has an intuitive menu guide where different user profiles can be set up and where collected data can be read out

The inlet temperature can be up to 65 °C so that operation in connection with reheating, e.g. in solar systems, is possible.

It is possible to use the instantaneous water heater DEX Next in combination with an external load shedding relay for electronically controlled instantaneous water heaters (refer to installing instructions).

As soon as you open the hot water tap, the instantaneous water heater switches on automatically. When the tap is closed, the appliance automatically switches off. The water heater is operated at the device itself or with an optional wireless remote control.

#### 2. Environment and recycling

This product was manufactured climate neutrally according to Scope 1 + 2. We recommend the purchase of 100% green electricity to make the operation climate neutral as well.

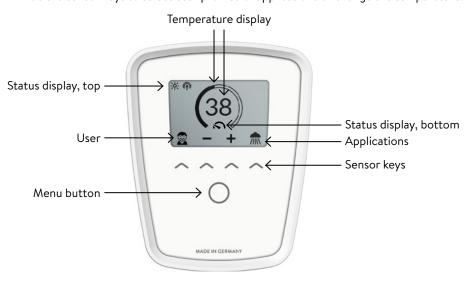
Your product was manufactured from high-quality, reusable materials and components. Please respect in case of discarding that electrical devices should be disposed of separately from household waste at the end of their service life. Therefore, please take this device to a municipal collection point that return used electronic devices to the recycling system. Disposing it correctly will support environmental protection and will prevent any potential negative effects on human beings and the environment that could arise from inappropriate handling of these devices at the end of their service life. Please contact your local authority for further details of your nearest designated collection point or recycling site.

Business customers: If you wish to discard equipment, please contact your dealer or supplier for further information.

#### Main screen

The e-paper display changes automatically to main screen approx. 60 seconds after activation or operation.

Tab the sensor keys to select user profiles or applications or change the temperature.



#### Temperature display

The scale ring fills up as the temperature setting is increased. In addition, the target temperature is displayed in °C in the middle of the display.

#### Temperature setting

The desired temperature can be selected via the two middle sensor keys within a range of 20 °C to 60 °C. Tapping once changes the temperature by 1 °C, in the comfort range between 35 and 43 °C by 0.5 °C. If the temperature is set below 20 °C, the symbol appears in the temperature display and the appliance switches off the heating function.

#### User selection

Up to four user profiles can be created. Every user has the option to save his desired temperatures for the different application in his profile. The user profiles can be selected by tapping on the left sensor key and than tap the key under the profile picture (to adapt profile, see Section "User").

#### **Applications**

Preset applications can be selected here. Simply tap on the right sensor key to open the selection. Tap on the sensor key under an application symbol to activate it.

The temperatures are set at the factory to the following values: A hand wash = 35°C,  $\widehat{m}$  shower = 38°C,  $\Longrightarrow$  bath tub = 42°C,  $\Longrightarrow$  hot water = 48°C

To change the values select an application and set the new temperature. Than press and hold the sensor key under your profile picture or the application for two seconds.

#### Status display, top

- Control lock active (PIN)
- The inlet temperature exceeds the target value (appliance does not heat up)
- Optional remote control or Home Server is installed. The appliance can be controlled remotely

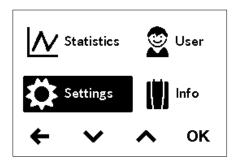
#### Status display, bottom

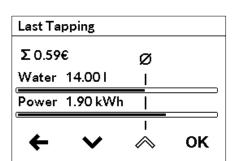
Display area for functions which require confirmation from the user or which are of great significance.

Maintenance: The appliance detected an error. Select "Info" in the Main menu to get further informations.









- Maximum temperature reached: The temperature cannot be increased any further since the set temperature limit has been reached. The temperature limit can be changed in the main menu via "Settings".
- A Heating activated: As soon as the appliance heats water, this symbol appears.
- Power limit: The full output of the instantaneous water heater does not suffice to heat the tapped quantity of water to desired temperature. Reduce the quantity of warm water at the tap.

#### Main menu

Press the menu button to enter the main menu. All function menus and saved values of the appliance can be selected from here.

#### **Statistics**

In the statistics the consumption and usage data are captured by the appliance and displayed in graph format:

- Water consumption
- Power consumption
- Σ Total consumption costs

Select ♠ or ❤ to scroll through the different periods. The consumptions are displayed in diagrams over a period from the last drawing of water or the total consumption.

Note: The consumption data are not suitable for billing purposes.

#### **Settings**

This menu is used for the basic configuration on the appliance. Select  $\wedge$  or  $\vee$  to scroll through the different menu items and tap "**OK**" to change settings directly or go to submenus.

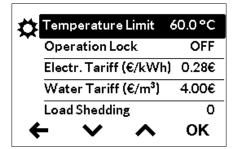
Temperature Unit: Defined as °C.

Language: Select the menu language.

Sound: Activate / deactivate operating sounds.

Note: Alarm signals and instruction sounds can not be disabled.

Currency: Select a currency symbol.



**Temperature Limit:** The temperature limit can be activated / deactivated in this menu and the maximum warm water temperature can be limited to a desired value within the temperature setting range.

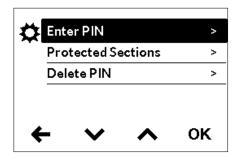
Note: If the instantaneous water heater supplies a shower, then the maximum temperature was limited during the installation of the appliance and can not be changed.

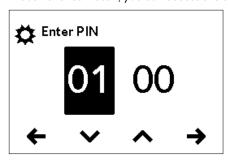
Operation Lock: Secure your settings with a four-digit PIN.

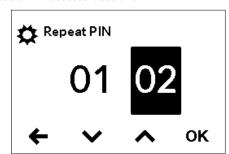
Note: The operation lock can only be deactivated with the correct PIN under "Protected Sections" or under "Delete PIN". If you should forget your PIN, please contact Customer Services.

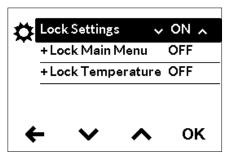
PIN Entry: Use ♠ or ❤ to select digits from 00 to 99. To move to the next or previous digit, select ♠ or ➡. Once you have selected both digits, confirm by ➡. The PIN must be reentered and confirmed by "OK" as a security measure.

If both entries match, you can access the section "Protected Sections".









Protected Sections: Select the areas for a PIN lock.

- Lock Settings: Automatically active as soon as a password has been generated.
  Users can only access the settings menu with a PIN. Deactivating it deletes the current PIN.
- + Lock Main Menu: Users can only access the main menu with a PIN
- + Lock Temperature: The outlet temperature is set to the current value and can only be changed with a PIN. User profiles and applications can also only be changed with a PIN.

**Electricity price (currency/kWh):** Specify the electricity price of your own electricity supplier.

Water price (currency/m³): Specify the water price of your own water supplier.

Value	Description
0	Operation without load shedding
	relay, factory setting
1	Operation with normal
1	load shedding relay
2	Operation with sensitive
2	load shedding relay

**Load Shedding (no function for DEX12 Next):** If further three-phase appliances are connected, a load shedding relay designed for electronic instantaneous water heaters (CLAGE no. 82250) can be connected to phase conductor L2. This relay ensures the operation of the water heater by switching off other consumers until the end of heating operation.

Select "OK" to activate the edit mode. To set a value of "0", "1" or "2" press and hold ♠ or ❤ for two seconds.

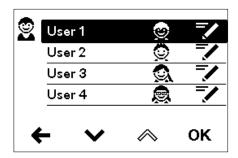
Operating mode 1 must be selected first, thus to check the correct operation of the load shedding relay at low appliance output (35 degree celsius setpoint and low water flow rate). Mode 2 must be selected if the load shedding relay flickers.

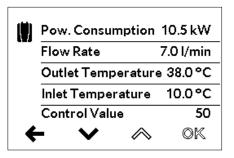
Note: This mode was set during initial operation to "1" or "2" if a load shedding relay is installed. If mode »1« is active, only an increase to mode »2« is possible.

Factory Settings: All factory settings can be recalled. Temperature limit for showering and load shedding are not affected.

Note: All customised user profiles and power and water prices entered, are deleted.

**Delete Statistics:** Use this function to delete all previously collected statistical data. Deleted statistical data cannot be restored.





#### User

Each of the four user profiles can be provided with their own profile image. This image appears in the main screen.

In the main screen, every user can set up and save his own desired temperatures for the different applications.

#### **Device Information**

The current status and appliance data are listed here. Use the sensor keys to scroll through the different information values.

#### Top-up heating

When operating with preheated water (e.g. with solar systems), you must ensure that the inlet temperature does not exceed 70 °C.

If the inlet temperature exceeds the setpoint, the appliance is not providing any output. The symbol is displayed in the main screen



#### How to save energy

Set the exact temperature you need on the appliance and open the hot water tap. Once you feel that the water is too hot, do not add any cold water and, instead, enter a lower temperature on the appliance. If you were to add cold water, the water already heated would cool down again and valuable energy would be wasted. Moreover, the cold water added in the tap is not covered by the control range of the electronic circuitry, with the result that temperature constancy is no longer guaranteed.

#### Venting after maintenance work



This instantaneous water heater features an automatic air bubble protection to prevent it from inadvertently running dry. Nevertheless, the appliance must be vented before using it for the first time. Each time the appliance is emptied (e.g. after work on the plumbing system, if there is a risk of frost or following repair work), the appliance must be re-vented before it is used again.

- 1. Disconnect the instantaneous water heater from the mains (e.g. via deactivating the
- 2. Unscrew the jet regulator on the outlet fitting and open the cold water tap valve to rinse out the water pipe and avoid contaminating the appliance or the jet regulator.
- 3. Open and close the hot water tap until no more air emerges from the pipe and all air has been eliminated from the water heater.
- 4. Only then should you re-connect the power supply again (e.g. via activating the fuses) to the instantaneous water heater and screw the jet regulator back in.
- 5. The appliance activates the heater after approx. 10 seconds of continuous water flow.

#### Cleaning and maintenance

- Plastic surfaces and fittings should only be wiped with a damp cloth. Do not use abrasive or chlorine-based cleaning agents or solvents.
- For a good water supply, the outlet fittings (e.g. jet regulators and shower heads) should be unscrewed and cleaned at regular intervals. Every three years, the electrical and plumbing components should be inspected by an authorised professional in order to ensure proper functioning and operational safety at all times.

#### 4. Trouble-shooting and service



- Repairs should only be carried out by competent persons familiar with electric instantaneous water heaters.
- All service work should be performed by an authorized Zip service engineer – for details of the full range of services available call Zip on 0345 6 005 005.
- When calling for service, please always specify the appliance model and serial number.

This instantaneous water heater was manufactured conscientiously and checked several times before delivery. Should malfunctions nevertheless occur, it is usually only due to a bagatelle. First attempt to switch the house fuses off and on again in order to reset the electronics. Next, try to remedy the problem with reference to the following table. In doing so, you will avoid unnecessary expense of customer service assistance.

DEX Next					
Problem	Cause	Solution			
Water stays cold,	Master fuse tripped	Renew or activate fuse			
touch display shows power break screen	Safety pressure cut-out tripped	Contact customer service			
Water stays cold, display shows error symbol	The appliance has detected an error	Switch fuses off and on. If symbol "wrench" is still indicated, contact customer service			
Flow rate of hot	Outlet fitting dirty or calcified	Clean shower head, jet regulator or sieves			
water too weak	Fine filter dirty or calcified	Let clean fine filter by customer service			
Selected temperature	Power limit reached	Decrease the warm water flow at the tap			
is not reached	Cold water has been added via the tap	Tap hot water only; set temperature, check outlet temperature			
Sensor keys does not respond correctly or only sporadically	Display glass is wet	Dry display by wiping it with a soft cloth			

#### 5. Product data sheet in accordance with EU regulation - 812/2013 814/2013

a	b		С	d	е	f	h	i
	b.1	b.2			$\eta_{WH}$	AEC	°C	L <sub>WA</sub>
					%	kWh		dB(A)
Zip Inline	DEX Next	5E-270P-3D	S	Α	38	482	60	15
Zip Inline	DEX12 Next	5E-115G-3D	XS	A	39	472	60	15

#### **Explanations**

а	Brand name or trademark
b.1	Model
b.2	Туре
С	Specified load profile
d	Energy-efficiency class
е	Energy-efficiency
f	Annual power consumption
g	Additional load profile, the appropriate energy-efficiency and the annual power consumption, if applicable
h	Temperature setting for the temperature controller
i	Sound power level, internal

#### Additional notes



All specific precautions for assembly, installation, maintenance and use are described in the operating and installation instructions.



All data in this product data sheet are determined by applying the specifications of the relevant European directives. Differences to other product information listed elsewhere may result in different test conditions.

The power consumption was determined in compliance with standardized measurement method based on EU guidelines. The real energy consumption is pending on individual requirements.

#### 6. Warranty

The Zip appliance you have chosen is precision-built from the finest materials available and should give many years of trouble free service.

Certain warranties may be implied by law into your contract with Zip. The warranty provided below is additional to these implied warranties and nothing set out below shall limit your statutory rights or rights at law.

Zip Water UK warrants that, should any part fail within 12 calendar months of installation, that part will be repaired or replaced free of charge by Zip or its Distributor or Service Provider, except as set out below, provided the appliance is installed and used strictly in accordance with the instructions supplied, and that failure is not due to accident, misuse, abuse, unsuitable water conditions, or to any alteration, modification or repair by any party not expressly nominated by Zip.

No costs are payable by the customer other than any mileage or travelling-time charges incurred by a Zip Service Provider or the cost of removal, cartage and re-installation of any component of the appliance if it needs to be returned for repair to Zip or its Distributor.

This warranty does not cover damage resulting from non-operation of the appliance or consequential damage to any other goods, furnishings or property.

Zip does not exclude, restrict or modify any liability that cannot be excluded, restricted or modified or which cannot, except to a limited extent, be excluded, restricted or modified as between the owner or user and Zip under the laws applicable.

Furthermore, this warranty does not displace any statutory warranty, but, to the extent to which Zip is entitled to do so, the liability of Zip under any statutory warranty will be limited at Zip's option to the replacement of the appliance or supply of equivalent appliance, the payment of the cost of replacing the appliance or acquiring an equivalent appliance, or the payment of the cost of having the appliance repaired or the repair of the appliance.

Note It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

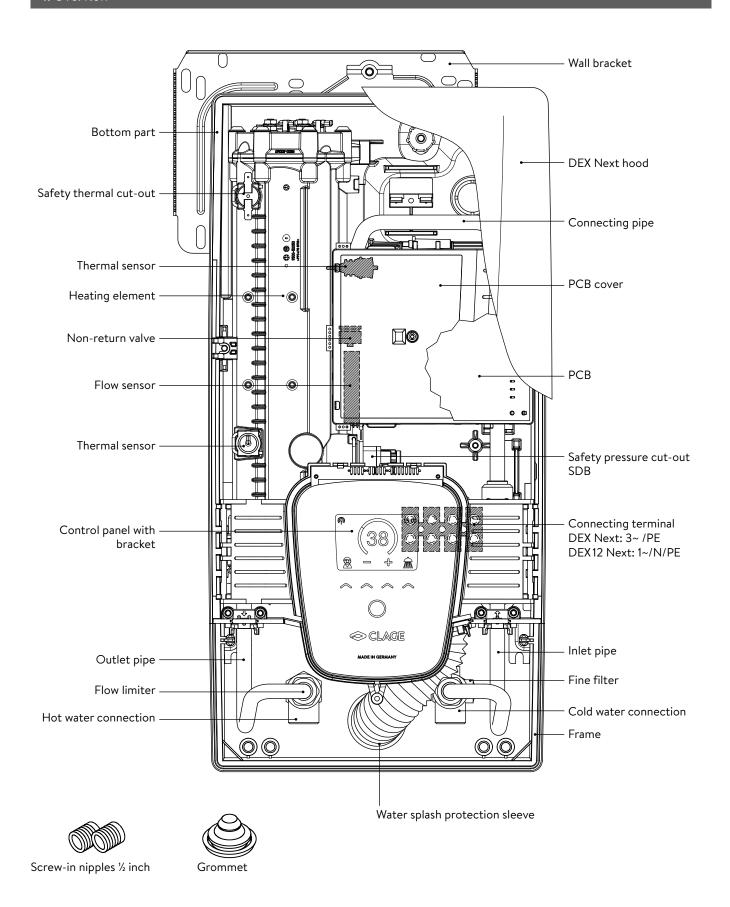
To ensure you have the latest revision of this instruction manual, please visit www.zipwater.co.uk to download the latest copy.

#### **IMPORTANT**

No liability is accepted for incorrect use of this product.

## Installation instruction

#### 1. Overview

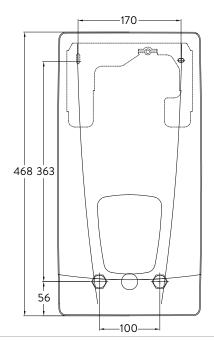


### 2. Technical specifications

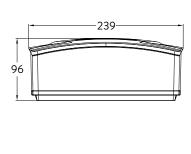
Model	DEX12 Next		DEX Next			
Energy efficiency class	A *)					
Rated capacity / rated current	8.8 kW11.5 kW (38 A50 A)		18 kW27 kW (26 A39 A)			
Chosen capacity / current	8,8 kW / 38 A	11.5 kW / 50 A	18 kW / 26 A	21 kW / 30 A	24 kW / 35 A	27kW / 39A
Electrical connection	1/N/PE 220 V 240 V		3~/PE 380415 V AC			3~/PE 400 V AC
Min. required cable size 1)	10.0 mm <sup>2</sup>	10.0 mm <sup>2</sup>	4.0 mm <sup>2</sup>	4.0 mm <sup>2</sup>	6.0 mm <sup>2</sup>	6.0 mm <sup>2</sup>
Hot water (I/min) max. at $\Delta t = 28 \text{ K}$ max. at $\Delta t = 38 \text{ K}$	4.5 3.3	5.9 <sup>2)</sup> 4.3	9.2 <sup>2)</sup> 6.8	10.7 <sup>2)</sup> 7.9	12.3 <sup>2)</sup> 9.0 <sup>2)</sup>	13.8 <sup>2)</sup> 10.2 <sup>2)</sup>
Rated volume	0.41					
Rated pressure	1.0 MPa (10 bar)					
Connecting type	pressure-resistant / pressureless					
Heating system	Bare wire heating system IES®					
@ 15 °C: Required specific water resistance Specific electrical conductivity	≥ 1100 Ωcm ≤ 90 mS/m					
Inlet temperature	≤ 65°C					
Flow rate to switch on – max. flow rate	1.5 l/min	- 5.0 <sup>3)</sup>		1.5 l/mir	n - 8.0 <sup>3)</sup>	
Pressure loss	0.08 bar at 1.5 l/min 1.3 bar at 9.0 l/min 4)					
Temperature range	20°C - 60°C					
Water connection	G½ inch					
Weight (when filled with water)	4.2 kg					
VDE class of protection	I					
Type of protection / safety				IP25 (	€ CH	

- \*) The declaration complies with the EU regulation No 812/2013.
- 1) Maximum applicable cable size is 10 mm<sup>2</sup> at electrical connection from above (DEX Next only)
- 2) Mixed water
- 3) Flow rate limited to achieve optimum temperature rise
- 4) Without flow regulator

#### 3. Dimensions



#### Dimensions in mm



The following regulations must be observed:

- e.g. VDE 0100
- **EN 806**
- Installation must comply with all statutory regulations, as well as those of the local electricity and water supply companies.
- The rating plate and technical specifications
- Only intact and appropriate tools must be used

#### Installation site

- Appliance must only be installed in frost-free rooms. Never expose appliance to frost.
- The Appliance must be wall mounted and has to be installed with water connectors downward or alternative transversely with water connections left.
- The appliance complies with protection type IP25 and may therefore be installed in protection zone 1 according to VDE 0100 part 701 (IEC 60364-7).
- In order to avoid thermal losses, the distance between the instantaneous water heater and the tap connection should be as small as possible.
- The appliance must be accessible for maintenance work.
- Plastic pipes may only be used if they conform to DIN 16893, Series 2.
- The specific resistance of the water must be at least  $1100 \Omega$  cm at  $15 \,^{\circ}$ C. The specific resistance can be asked for with your water distribution company.
- When considering the location of the heater, consideration should be given to the safe and visible disposal of any water resulting from leaks and seepage. This is particularly relevant when the heater is located in a cupboard or any concealed location. For guidance please call Zip on 0345 6 005 005.

#### Mounting accessories

For installations under difficult conditions, these mounting accessories are available:

#### Mounting frame kit RDX3

(Art. no. 36100)

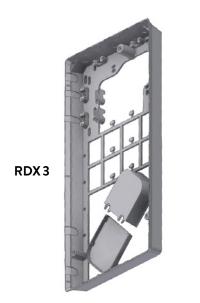
The instant water heater can be installed by means of this mounting kit in the below situations. The power supply cable is coming out of the wall at any place from behind the unit, but the wall has unusual surface conditions, making it difficult for installing the water heater.

When using the RDX the protection class changes from IP25 to IP24.

#### Extension kit VDX

(Art. no. 34120) - RDX / RDX 3 is necessary! -

The instant water heater can be installed by means of this extension kit if the water pipes are coming displaced or exchanged out of the wall or if they are coming edgewise on the wall to the unit. The power supply could come out of the wall at any place under the unit or the wiring could be installed surface-mounted.





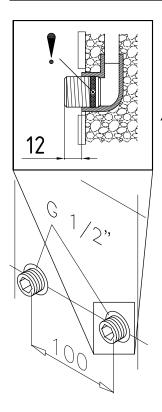
#### **Extension kit UDX**

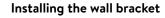
(Art. no. 34110) - RDX / RDX 3 is necessary! -

The instant water heater can be installed by means of this extension kit if the waterconnections are expiring above the unit. The power supply could come out of the wall at any place under the unit or the wiring could be installed surface-mounted.

UDX

#### 4. Installation

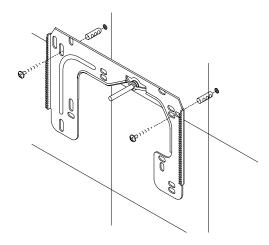




Note: If you install this instantaneous water heater in exchange for a conventional instantaneous water heater, there is generally no need to drill holes for the wall bracket, in this case step 2 would not be necessary.

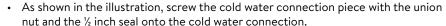
# Thoroughly rinse the water supply pipes before installation to remove soiling from the pipes.

- 1. Using a 12 mm hexagon socket screw key, screw the screw-in nipples into the wall connections. The seals must be fully screwed into the thread. After tightening, the double nipples must protrude by 12 14 mm.
- 2. Hold the included mounting template on the wall and align it so that the holes in the template fit over the double nipples. Mark the drill holes according to the template and drill them using a 6 mm drill. Insert the included dowels.
- 3. Pull down the faceplate and unscrew the main hood screw to open the appliance.
- 4. Loosen the knurled nut to remove the wall bracket and screw the wall bracket to the wall. Offset tiling or uneven surfaces can be compensated by up to 30 mm with the aid of the spacers supplied. The spacers are fitted between the wall and the wall bracket.

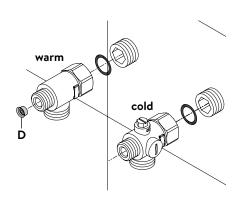


#### Installing connection pieces

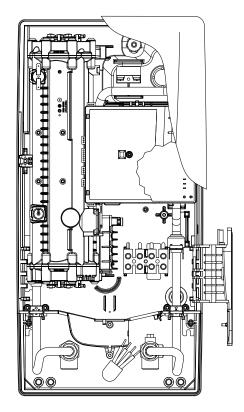
Note: Fasten the screw nuts with caution, to avoid damage to the valves or the piping system.



- Screw the hot water connection piece with the union nut and the ½ inch seal onto the hot water connection.
- Put the water flow reducer "D" into the hot water connection piece.

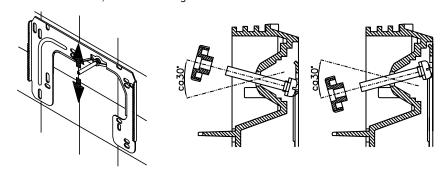


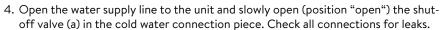
#### 4. Installation

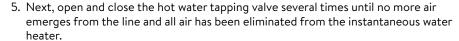


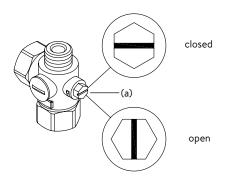
#### Installing the appliance

- The electrical power supply cable may be connected in the upper part or is surface mounted. Only in such case, first follow the steps one through three according to the description "Electrical connection from above" in chapter "Electrical connection".
- 1. Place the appliance on the heater bracket so that the threaded rod of the wall bracket fits in the corresponding hole of the appliance. If necessary, slight corrections are possible by carefully bending the threaded rod of the wall bracket. However, it must be possible to screw on the water connection pipes of the appliance without applying force.
- 2. Screw the plastic knurled nut onto the threaded rod of the wall bracket.
- 3. Screw the two ½ inch union nuts of the appliance's water connection pipes, each with the ¾ inch seal, onto the fittings.

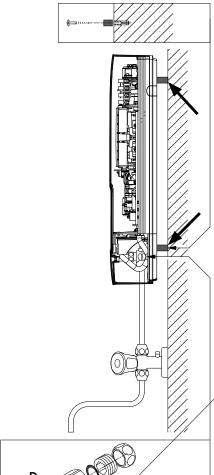








#### 5. Direct connection



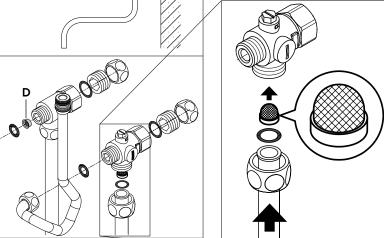
# Note: Fasten the screw nuts with caution, to avoid damage to the valves or the piping system.

For direct connection, the two  $\frac{1}{2}$  inch screw-in nipples and the  $\frac{1}{2}$  inch seals must be screwed into the  $\frac{1}{2}$  inch union nuts of the hot-water and cold-water connectors. The two  $\frac{1}{2}$  inch caps of the side outlets of the hot-water and cold-water connectors must be removed and screwed onto the open end of the screw-in nipples. Put the water flow reducer " $\mathbf{D}$ " into the hot water connection piece. The hot-water and cold-water connectors must then be screwed into the  $\frac{3}{2}$  inch union nut of the appliance inlet and outlet pipe, together with the  $\frac{3}{2}$  inch seals.

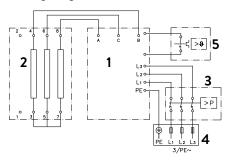
For direct connection, it may be advisable to mount the appliance at a distance as illustrated alongside, using the spacer sleeves supplied. The two fixing holes near the lower pipe connections are also to be professionally fixed with 6 mm dowels and screws.

The flared end of the pipes must be screwed into the  $\frac{1}{2}$  inch side outlets of the hotwater and cold-water connectors with  $\frac{1}{2}$  inch union nuts and  $\frac{1}{2}$  inch seals. The holes required for the pipes must then be opened of the housing with the aid of a blunt implement.

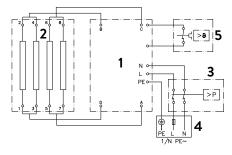
In case of direct connection please note: Put the strainer into the cold water connection!



#### Wiring diagram DEX Next



#### Wiring diagram DEX12 Next



- 1. Electronic circuitry
- 2. Heating element
- 3. Safety pressure cut-out
- 4. Connecting terminal
- 5. Safety thermal cut-out

#### Only by a specialist!

#### Please observe:

- e.g. VDE 0100
- The installation must comply with current IEC and national local regulations or any particular regulations, specified by the local electricity supply company
- The rating plate and technical specifications
- The appliance must be earthed!  $\left(\frac{1}{m}\right)$



#### Structural prerequisites

- The appliance must be installed via a permanent connection. Heater must be earthed!
- The electric wiring should not be injured. After mounting, the wiring must not be direct accessible.
- An all-pole disconnecting device (e.g. via fuses) with a contact opening width of at least 3 mm per pole should be provided at the installation end.
- To protect the appliance, a fuse element must be fitted with a tripping current commensurate with the nominal current of the appliance.

#### Load shedding relay (DEX Next only)

If further three-phase appliances are connected, a load shedding relay designed for electronic instantaneous water heaters (IN. 82250) can be connected to phase conductor L2.

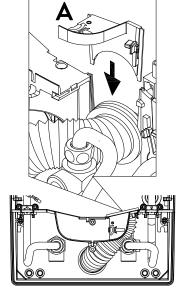
To change the operating mode, after making the electrical connection and the initial operation call up the settings menu. Then select the point "Load shedding".

Select "OK" to access the edit mode. To set a value of "0", "1" or "2" press and hold ↑ or for two seconds. By plugging the jumper in accordance with the locking function (see chapter »7. Initial operation« section »Locking function«) the load shedding is activated.

Value	Description
0	Operation without load shedding relay, factory setting
1	Operation with normal load shedding relay
2	Operation with sensitive load shedding relay

Operating mode 1 must be selected first, thus to check the correct operation of the load shedding relay at low appliance output (35 degree celsius setpoint and low water flow rate). Mode "2" must be selected if the load shedding relay flickers.



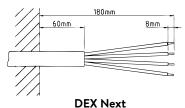


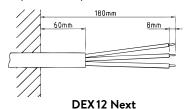
#### Electrical connection from below

Note: If necessary, the connecting terminal can be displaced to the upper part of the appliance. If you want to do so, please follow the instructions in the next chapter.

#### Check that the power supply is switched off prior to electrical connection!

- 1. Dismantle approximately 6 cm off the connecting cable above the wall outlet. With the smaller opening ahead, slide the water splash protection sleeve over the connecting cable so that the sleeve is flush with the wall. This prevents any leaking water from coming into contact with the electrical leads. It must not become damaged! The protection sleeve must be used!
- 2. Open the control panel holder rightwards.
- 3. Strip the cables and plug them in the connecting terminals according to the wiring diagram. The appliance must be earthed.
- 4. Pull the protective sleeve over the connecting cables until the sleeve fits perfectly in the recess of the intermediate panel. Adjust the water splash protection sleeve as illustrated and fix it with the sleeve fixing (A). Reinsert the control panel holder and lock it on.
- 5. Place the hood on the appliance and screw in the fastening screw. After that you can slide on the faceplate from the bottom up to the stop.





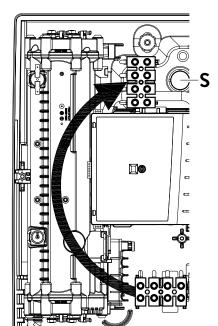


#### Electrical connection from above (DEX Next only)

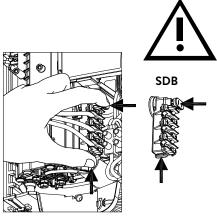
#### Check that the power supply is switched off prior to electrical connection!

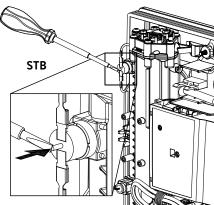
- 1. Open the prepared breaking point (S) in the upper part of the appliance by pressing with a blunt implement (e.g. srewdriver). For surface-mounted connection cable additional open the breakout at the right side of the bottom part.
- 2. Slit the grommet of the accessory set to match the cable size. The opening in the grommet should be slightly smaller than the cross-section of the cable in order to ensure optimum protection against water. Fit the grommet into the opening. The protection grommet must be used!
- 3. Strip the connection cable so that the sheath extends through the grommet into the appliance. Hold the prepared appliance so that you can route the cable into the grommet with the other hand.
- 4. Place the appliance on the wall bracket so that the threaded rod of the wall bracket fits in the corresponding hole of the appliance.
- 5. Open the control panel.
- 6. Unscrew the fastening screw of the connecting terminal. Displace the connecting terminal to the upper foot. Affix the connecting terminal again.
- 7. Strip the individual wires and plug them in the connecting terminals according to the wiring diagram. **The appliance must be earthed.**
- 8. Reinsert the control panel and lock it on.
- 9. Place the hood on the appliance and screw in the fastening screw. After that you can slide on the faceplate from the bottom up to the stop.

Note: To ensure IP25 protection class, please don't remove the bottom water splash protection sleeve.



#### 7. Initial operation







#### Multiple Power System MPS®:

The rated capacity of DEX Next (max. power consumption) is  $27\,kW/400\,V$  and can be changed internally to  $24\,kW$ ,  $21\,kW$  or  $18\,kW$ .

The rated capacity of DEX12 Next is  $11.5\,\mathrm{kW}$  at  $230\,\mathrm{V}$  and can be changed internally to  $8.8\,\mathrm{kW}$ 

Before making the electrical connection, fill the mains and the appliance with water by carefully opening and closing the hot water tap in order to vent completely.

To ensure a maximum flow, remove any existing aerator from the faucet. Flush the warm and cold water pipes each at least for one minute.

After every draining (e.g. after work on the plumbing system or following repairs to the appliance), the heater must be re-vented in this way before starting it up again.

If the water heater cannot be put into operation, the temperature cut-out or the pressure cut-out may have tripped during transport. Check that the power supply is switched off and reset the cut-out, if necessary.

#### Selection of power rating

#### Only by authorised specialist, otherwise lapse of guarantee!

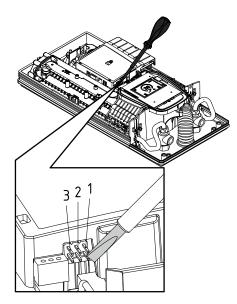
On delivery, the display shows the screen "APPROVED" (see left). If not, the device has already been powered once. In this case, please follow the section "Reinstallation".

Upon first connection of the appliance to the supply voltage, select the maximum power rating. Only after having set the power rating, the heater provides its standard operation mode.

The maximum allowable power rating at installation site depends on the local situation. It is imperative to observe all data shown in the table "Technical specifications", in particular the required cable size and fuse protection for the electrical connection. Moreover, the electrical installation must comply with the statutory regulations of the respective country and those of the local electricity supply company (Germany: DIN VDE 0100).

- 1. Switch on the power supply to the appliance.
- 2. When switching on the supply voltage for the first time, the display shows the menu to select the language. Choose your language, after that the selection of power rating appears.
- 3. Select the maximum allowable power rating depending on the local situation via sensor keys.
- 4. Select "OK" to confirm the setting.
- 5. Mark the set power rating on the rating plate.
- 6. After having set the maximum allowable power rating, the heating element will be activated after approx. 10 30 sec of continuous water flow.
- 7. Open the hot water tap. Check the function of the appliance.
- 8. Explain the user how the instantaneous water heater works and hand over the operating instructions.
- 9. Complete the product registration card and return it to Zip or register the product on line at www.zipwater.co.uk/product-registration.

#### 7. Initial operation



#### Reinstallation

In case the appliance will be commissioned again under different installation conditions than during its initial operation, it may be necessary to adapt the maximum power rating.

A temporary short-circuit of the two pins, e.g. with a screwdriver acc. to EN 60900 (see figure), will reset all heater parameters to works setting and lock the heating. The display shows the menu to select the language. Choose your language, after that the selection of power rating appears. This condition will maintain when activating and deactivating the supply voltage.

#### **Shower application**

The water heater's temperature must be limited to  $55\,^{\circ}$ C, if it is connected to a shower. The temperature limit must be set to a value less or equal  $55\,^{\circ}$ C in the setting menu, in consultation with the customer and the lock level must be activated.

When the appliance is operated with preheated water, it must be ensured that this temperature is limited to  $55\,^\circ\text{C}$  as well.

#### **Locking function**

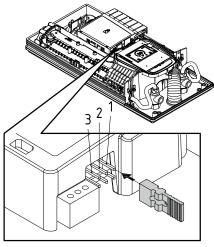
The operating mode of the appliance can be restricted.

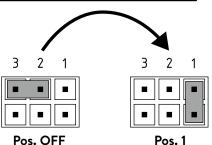
#### Activation of the locking function

- 1. Select required parameters via the setting menu (see online user manual chapter "Settings", subpoints "Temperature limit" and / or "Load shedding").
- 2. Disconnect the appliance from the power supply (e.g. by switching off the fuses).
- 3. Take the jumper off the power electronics and change to position "1" (see picture).
- 4. Put the appliance into operation again.

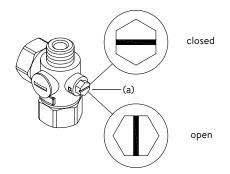
#### Deactivation of the locking function

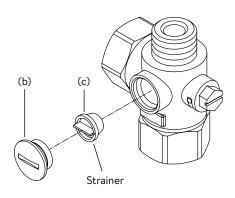
- 1. Disconnect the appliance from the power supply (e.g. by switching off the fuses).
- 2. Take the jumper off the power electronics and change to position "**OFF**" (see picture).
- 3. Put the appliance into operation again.





#### 8. Maintenance work







#### Cleaning and replacing the filter strainer

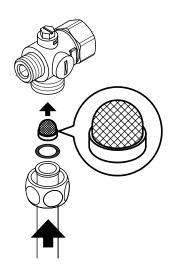
The cold water connection of this instantaneous water heater is equipped with an integrated shut-off valve and a strainer. Soiling of the strainer may reduce the warm water output. Clean or replace the strainer as follows:

- 1. De-energize the instantaneous water heater (e.g. via deactivating the fuses) and prevent inadvertent reactivation of them.
- 2. To open the appliance, take off the small face plate, loose the screw behind this cover and detach the hood.
- 3. Close the shut-off valve (a) in the cold water connection piece (position "closed").
- 4. Unscrew the screw plug (b) from the cold water connection piece and take out the strainer (c).
  - Note: Residual water can leak
- 5. The strainer can now be cleaned or replaced.
- 6. After fitting of the clean strainer tighten the screw plug.
- 7. Slowly reopen the shut-off valve in the cold water connection piece (position "open"). Check all connections for leaks.
- 8. Vent the appliance by carefully opening and closing the affiliated warm water tap valve several times until air no longer emerges from the pipe.
- 9. Fit the hood of the appliance. Then switch on the power again (e.g. via activating the fuses).

#### Cleaning and replacing the filter strainer if direct connected

The cold water connection of this instantaneous water heater is equipped with a strainer. Soiling of the strainer may reduce the warm water output. Clean or replace the strainer as follows:

- 1. De-energize the instantaneous water heater (e.g. via deactivating the fuses) and prevent inadvertent reactivation of them.
- 2. Close the shut-off valve in the mains water supply of the instantaneous water
- 3. To open the appliance, take off the small face plate, loose the screw behind this cover and detach the hood.
- 4. Unscrew mains water inlet from connection piece and take out the strainer. Note: Residual water can leak
- 5. The strainer can now be cleaned or replaced.
- 6. After refitting the clean strainer reconnect the mains water inlet to the connection piece.
- 7. Slowly reopen the shut-off valve in the mains water supply. Check all connections for leaks.
- 8. Vent the appliance by carefully opening and closing the affiliated warm water tap valve several times until air no longer emerges from the pipe.
- 9. Fit the hood of the appliance. Then switch on the power again (e.g. via activating the fuses).







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24