

# Zip InLine® DEX and DBX

Electronic Instantaneous Water Heaters.



## Features

- Electronically controlled instantaneous electric water heaters for supplying single or multiple outlets.
- The most energy efficient way of directly heating water electrically.
- Highly efficient bare wire heating system.
- Zero standing heat loss as no stored water.
- Instant hot water.
- Provides a constant supply of hot water at exactly the temperature selected.
- Heating power electronically adjusted to compensate for variable inlet pressures and temperatures.
- Three phase DEX models suitable for use with pre-heated water from solar heating systems.



N.B. There is a Zip specification sheet available on the 'The use of Thermostatic Blending Valves with Zip InLine.'  
There is also a Zip specification sheet on Zip InLine and Legionella risk.

# Zip InLine DEX, DBX®

## Electronic Instantaneous Water Heater.



### Description

All models

- Can enable a constant supply of hot water to one or more outlets. The heating element switches on automatically when the minimum flow rate is exceeded and switches off when flow rate reduces below the minimum.
- Regulates power consumption electronically depending on supply water temperature and flow rate to achieve the required outlet temperature.
- Also regulates power consumption based on outlet temperature to ensure precise temperature control irrespective of fluctuations in voltage and water pressure.
- Bare wire heating system ensures fast response for immediate, energy efficient delivery of hot water.

#### DBX

- Outlet temperature factory set to 50°C adjustable inside the appliance from 30°C to 60°C.

#### DEX

- The required outlet temperature can be set via two touch sensitive membrane keys within the range 20°C to 60°C (20°C to 55°C for DEX12) with digital display of the selected temperature.
- Power rating can be selected at the time of installation.
- Enables selection of two pre-programmed temperature settings.
- Provides visible indication when the heating power available is unable to achieve the required temperature at the selected flow rate.
- Maximum inlet temperature of 70°C is suitable for use with pre-heated water from solar heating systems. (Not DEX12).

### Installation

#### Location

The appliance must be installed in an environment which is free from frost at all times.

The appliance complies with protection class IP25 and may be installed in zone 1.

In order to minimise thermal losses, the distance between the appliance and the outlet fitting should be as short as possible. Recommended maximum distance 2 metres.

#### Plumbing

The appliance is intended for connection to a potable mains water supply. The specific water resistance of the supply must not fall below the minimum specified on the rating plate.

Hot and cold connecting pipes should be WRAS approved and of copper or steel construction. Plastic pipes may only be used if conforming to DIN 16893 Series 2. The hot water pipes must be thermally insulated.

Minimum flow rate 2.5 litres/min.

Should be installed by a suitably qualified installer of electric instantaneous water heaters.

#### Electrical

The appliance must be earthed and connected to the supply by means of permanent wiring through an isolation switch having a contact separation of at least 3mm on all poles and protected by a suitably rated circuit breaker.

Technical data	DEX <sup>(1)</sup>				
Model	DEX12 <sup>(1)</sup>	DBX18	DBX21	DBX24	DBX27
Energy efficiency class	A	A	A	A	A
Nominal supply voltage	1/N/PE 230V~	3/PE 380-415V~			3/PE 400V~
Power Rating [kW]	8.8 / 11.0 <sup>(1)</sup>	18.0	21.0	24.0	27.0
Rated Current [A]	38 (8.8kW) 48 (11.0kW)	26	30	35	39
Element type	Bare wire				
Rated pressure	1MPa (10 bar)				
Temperature adjustment range					
DEX	20°C - 55°C	20°C - 60°C			
DBX		30°C - 60°C			
Maximum inlet temperature					
DEX	25°C	70°C			
DBX		30°C			
Minimum flow rate (l/min)	2.5				
Maximum flow rate (l/min)					
DEX	5.0	8.0			
DBX		7.0	8.0	8.0	9.0
Flow rate @ 38°C (l/min) <sup>(2)</sup>	4.8 (8.8kW) 6.1 <sup>(3)</sup> (11.0kW)	9.8 <sup>(3)</sup>	11.4 <sup>(3)</sup>	13.0 <sup>(3)</sup>	14.8 <sup>(3)</sup>
Flow rate @ 50°C (l/min) <sup>(2)</sup>	3.3 (8.8kW) 4.1 (11.0kW)	6.8	7.9	9.0 <sup>(3)</sup>	10.2 <sup>(3)</sup>
Pressure loss @ 2.5 l/min	0.2 bar				
@ 9.0 l/min	1.3 bar <sup>(4)</sup>				
Required specific water resistance @ 15°C					
DEX	>1300 ohm.cm	>1100 ohm.cm			
DBX		>1300 ohm.cm			
Dimensions W x D x H (mm)	231 x 97 x 466				
Maximum weight (kg)	3.7				
Rated volume (litres)	0.4				
Water connections (BSP)	1/2"				
Protection class	IP25				

<sup>(1)</sup> Power rating selected at time of installation

<sup>(2)</sup> At 12°C incoming water temperature

<sup>(3)</sup> Mixed with cold water at the outlet

<sup>(4)</sup> Without flow regulator

All data quoted at nominal supply voltage A minimum water pressure of 0.2 MPa (2 bar) is recommended for optimum performance. The appliance must not be subject to more than 1 MPa.

The cross sectional area of the connection cable must be in accordance with the power rating of the appliance and the specific requirements of the installation site up to a maximum cable size of 10mm<sup>2</sup>. The appliance must be installed in accordance with current IEE regulations.

#### IP Rating

IP25. Suitable for installation in Zone 1.

#### Approvals

WRAS approved  
VDE approved to the LVD and EMC directives.  
CE endorsed

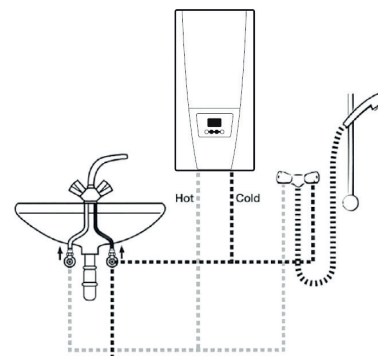
#### Technical support

Contact Zip on 0845 6 005 005  
or 0345 6 005 005.

#### Warranty

One year, on-site parts and labour.  
For full details of the Zip Warranty Scheme visit: [www.zipwater.com/uk/support/warranty-policy](http://www.zipwater.com/uk/support/warranty-policy)

### Typical Installation



Mains supply

**N.B.** Zip Instantaneous water heating is the most energy efficient way of directly heating water electrically. However, the delivered water temperature will be dependant upon the incoming water temperature, supply voltage and selected flow rate.