

# EDBS



**Electronic Cylinder Thermostat  
with High Limit**

Installation and Operation Guide



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## Installation Instructions

## Factory Default Settings



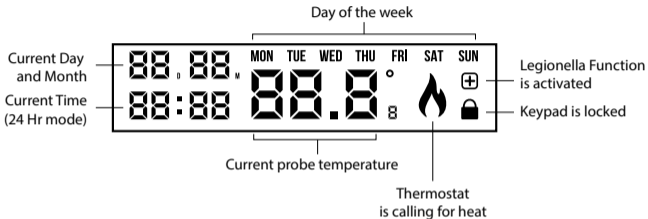
Temperature indicator:	°C
Clock:	24 hours
Day light saving:	On
Legionella function:	Off
Legionella set temperature:	65°C
Auto lock:	Off
Backlight:	Auto
Maximum temperature setting:	80°C
Minimum temperature setting:	10°C
Hysteresis On:	5°C
Hysteresis Off:	0°C
High Limit Cut Out:	85°C - Not adjustable

## Specifications

Power supply:	230Vac 50-60Hz
Power consumption:	1.8W
Temperature control range:	10...80°C
Ambient temperature:	0...45°C
Admissible ambient humidity:	5-95%RH
Dimensions:	100 x 105 x 42.5 mm
Contact rating:	10A
Battery:	LIR 2032
Backlight:	Blue
IP rating:	IP20
Pollution degree:	Pollution Degree 2
Rated impulse voltage:	4kV
Automatic action:	1C
Temperature sensor:	NTC 10K @ 25°C
Temperature indication:	°C

# LCD Symbol / Button Description

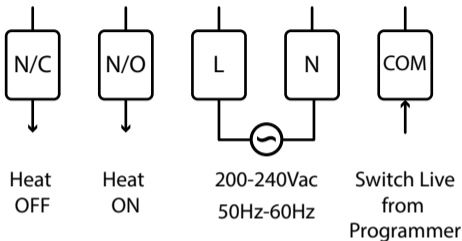
## LCD Display



## Button



## Wiring



### Caution!

- Mains voltage output only

### Terminal Connections

N/C	Heat OFF
N/O	Heat ON
L	Live in from Mains Supply
N	Neutral in from Mains Supply
COM	Switch Live

# Mounting & Installation

## Caution!

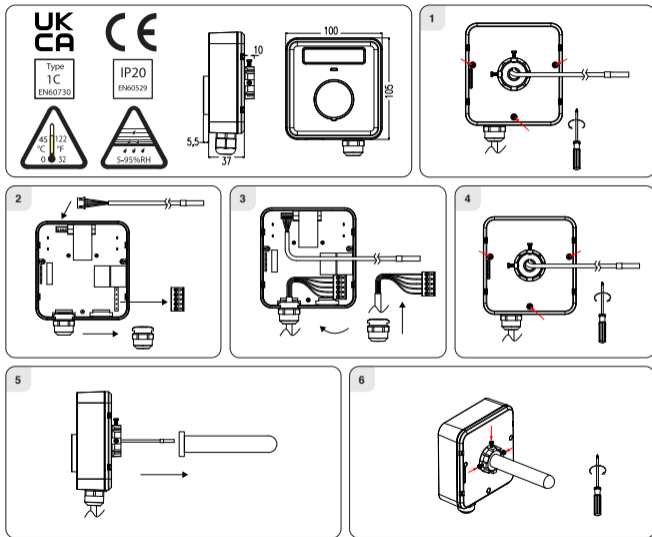
- *Installation and connection should only be carried out by a qualified person.*
  - *Only qualified electricians or authorised service staff are permitted to open the thermostat.*
  - *If the thermostat is used in a way not specified by the manufacturer, its safety may be impaired.*
  - *Prior to setting the thermostat, it is necessary to complete all required settings described in the section.*
- 

The EDBS is designed to fit directly onto a hot water cylinder pocket.

- 1) Loosen the 3 screws on the back housing of the thermostat.
- 2) Remove the back housing.
- 3) Wire the thermostat according to the Wiring Diagram on page 5.
- 4) Replace the back housing and tighten the 3 screws.
- 5) Insert both cable sensors into the pocket.
- 6) Tighten the 3 fixing screws to ensure the thermostat is secured on the pocket.



# Installation Drawing





## Operating Instructions

## Resetting the High Limit Thermostat

This thermostat consists of a control thermostat and a high limit thermostat. The high limit thermostat has a maximum permissible temperature of 85°C.


If the high limit temperature is exceeded, the temperature will continuously flash on the screen to alert you that a manual reset is required.

Manual reset is only possible after the temperature drops below 85°C.

### To Reset the high limit thermostat


- 1) Remove the handwheel from the thermostat.
- 2) Note the location of the reset button underneath the handwheel.
- 3) Reset the thermostat by pressing the reset button.

## Adjusting the Temperature Setpoint

Rotate  to adjust the temperature setpoint.

Press  to confirm.


## Setting the Date & Time

Double press the handwheel  to enter the menu.





will appear.

Press  once.

Rotate  to select the year.

Rotate  to select the month.


Rotate  to select the day.


Rotate  to select the hour.

Rotate  to select the minute.


Rotate  to select daylight saving.


Press  to confirm.


Press  to confirm.

Press  to confirm.

Press  to confirm.

Press  to confirm.

Press  to confirm and to return to the menu.

Rotate  to exit the menu



Press  to confirm.

Alternatively, the menu will be exited after 20 seconds.

## Legionella Function

Legionella bacteria can thrive in hot water cylinders that have a water temperature of between 20°C and 50°C.

The purpose of the Legionella function on this thermostat is to remove any threat of Legionella bacteria surviving by raising the temperature of the hot water in the cylinder above 60°C for a specific period of 1 hour.


The legionella function on this thermostat will call to heat the hot water to a user selected temperature of between 60°C & 70°C.

Default is set at 65°C.

The Legionella function on this thermostat offers the user the following:


- 1) Operation a maximum of once per day at a time chosen by the user.
- 2) Operation from one to seven days a week.
- 3) Temperature selection of between 60°C to 70°C.
- 4) Temperature must reach the temperature required for a period of one hour.

It is best practice to activate the legionella function at a time of low or no demand on the hot water. For example: 3 a.m.

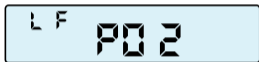
When the legionella function is active the  symbol will appear.

## Legionella Function (Continued)


### Setting the legionella function Off

Double press the handwheel  to enter the menu.


Rotate  to select the Legionella function. (Menu P02)





will appear.

Press  once. "Off" will appear on the screen.


Rotate  to turn the Legionella function "On".

Press  once to confirm. 65°C will flash on the screen.


Rotate  to select the desired temperature of between 60°C & 70°C.

Press  once to confirm. "03:00" will flash on the screen.

Rotate  to select the start time.


Press  once to confirm.


"MON" will flash. To select "MON", rotate  clockwise once.

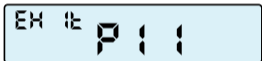
Rotate  anti-clockwise once to skip "MON".

You can then choose to select or skip the other days of the week.

Turn  clockwise to Select or anti-clockwise to Skip.

Press  once to confirm and to return to the menu.


Rotate  to exit the menu




Press  to confirm.

Alternatively, the menu will be exited after 20 seconds.

## Auto Lock Function

The Auto Lock function allows you to set an automatic handwheel  lock for the thermostat.

When activated, the thermostat will automatically lock if  is not rotated or pressed for 5 minutes.


You can lock or unlock the thermostat by pressing  for 10 seconds.




## Setting the Auto Lock Function



Off


Double press the handwheel  to enter the menu.


Rotate  to select the Auto lock function. (Menu P03)




will appear.

Press  once. "Off" will appear on the screen.

Rotate  to select "On".


Press  once to confirm and to return to the menu.


Rotate  to exit the menu



Press  to confirm.

Alternatively, the menu will be exited after 20 seconds.

To unlock the thermostat, press and hold  for 10 seconds.

**If Auto Lock function is not selected, it is still possible to lock or unlock the thermostat by pressing and holding  for 10 seconds.**

## Backlight Mode Selection


There are 3 backlight settings available for selection:

AUTO: Backlight stays on for 10 seconds after  is pressed or rotated.

ON: Backlight is permanently On

OFF: Backlight is permanently Off


## Setting the backlight: AUTO

Double press the handwheel  to enter the menu.


Rotate  to select the Backlight function. (Menu P04)




will appear.

Press  once. "Auto" will appear on the screen.

Rotate  to select "On" or "Off".

Press  once to confirm and to return to the menu.

Rotate  to exit the menu




Press  to confirm.

Alternatively, the menu will be exited after 20 seconds.

## High & Low Temperature Limits

This function allows you to set the maximum and minimum temperatures for the thermostat.


**Setting the Hi Lo function:**  High 80°C Low: 10°C


Double press the handwheel  to enter the menu.


Rotate  to select the Hi Lo function. (Menu P05)





will appear.


Press  once. "Hi" will appear on the screen.

Rotate  to select the maximum temperature.

Press  once to confirm. "Lo" will appear on the screen.

Rotate  to select the minimum temperature.

Press  once to confirm and to return to the menu.

Rotate  to exit the menu



Press  to confirm.

Alternatively, the menu will be exited after 20 seconds.

## Hysteresis Function

The Hysteresis function allows you to set the switching differential of the thermostat when the temperature is both rising and falling.

“HYS On” of 5°C means the thermostat will switch on if the temperature drops 5°C below the setpoint.

“HYS Off” of 1°C means the thermostat will switch off if the temperature rises 1°C above the setpoint.


Both Hysteresis On and Hysteresis Off can be adjusted from 0°C to 20°C.

## Hysteresis Function

### Setting the Hysteresis function:




HYS On: 5°C & HYS Off: 0°C


Double press the handwheel  to enter the menu.

Rotate  to select the Hysteresis function. (Menu P06)





will appear.


Press  once. "HYS ON" will appear on the screen.

Rotate  to select the HYS ON temperature.

Press  once to confirm. "HYS OFF" will appear on the screen.

Rotate  to select the HYS OFF temperature.

Press  once to confirm and to return to the menu.

Rotate  to exit the menu



Press  to confirm.

Alternatively, the menu will be exited after 20 seconds.

## Calibrating the Thermostat

The calibration function allows you to calibrate the thermostat.

### Setting the Calibration function:


Double press the handwheel  to enter the menu.


Rotate  to select the Calibration function. (Menu P07)




will appear.

Press  once. The current temperature is displayed.

Rotate  to select the required temperature.

Press  once to confirm and to return to the menu.

Rotate  to exit the menu



Press  to confirm.


Alternatively, the menu will be exited after 20 seconds.

## Legionella Check Function

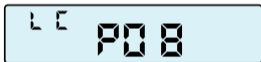
This function allows you to check the last three times that the legionella function operated successfully.

It is possible to check the date, time and the set legionella temperature for these three times.

### Checking the legionella record

Double press the handwheel  to enter the menu.

Rotate  to select the Legionella Check function. (Menu P08)



will appear.

Press  once.

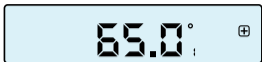


will appear.

This is the date and time of the last successful legionella operation.

Rotate  clockwise.





will appear.

This is the temperature of the last successful legionella operation.

Rotate  clockwise.



will appear.

This is the date and time of the second last successful legionella operation.

Rotate  clockwise.



will appear.

This is the temperature of the second last successful legionella operation.


Rotate  clockwise.

## Legionella Check Function (Continued)



will appear.

This is the date and time of the third last successful legionella operation.


Rotate the handwheel  clockwise.



will appear.

This is the temperature of the third last successful legionella operation.

Press  once.

Rotate  to exit the menu




Press  to confirm.

Alternatively, the menu will be exited after 20 seconds.

## High Limit Cut Out Temperature

This function allows you to view the high limit cut out temperatures in the thermostat.

Double press the handwheel  to enter the menu.

Rotate  to select the Factory default function. (Menu P09)



will appear.

Press  once.

"NO" will appear on the screen.

The high limit cut out temperature will appear on the screen.

This is the factory default setting and is not adjustable.



Press  once to confirm and to return to the menu.

Rotate  to exit the menu





Press  to confirm.

Alternatively, the menu will be exited after 20 seconds.

## Factory Reset Function

This function allows you to restore the factory default settings in the thermostat.

Double press the handwheel  to enter the menu.


Rotate  to select the Factory default function. (Menu P09)



will appear.

Press  once.

"NO" will appear on the screen.

Rotate  to select "YES".

Press  once to confirm.

The thermostat will now reboot with the factory default settings.

## also available

### Electro - Mechanical Thermostats



CM2



CM3



CMT



CM2S



CM3S

### Programmable Digital Thermostats



CDT2



CRTP2



RDTP



CP4B



CP4M

## Non Programmable Digital Thermostats



CDT2



CRT2



RDT



HDT



HRT

## Cylinder Thermostats



EDBS



WRP



WRP-TP



WRP-IM



WRP-IM-TP

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