



## Installation manual

# **CF3-W-US-Disp-FLI**

## CO<sub>2</sub> transmitter and alarm



*CF3-W-US-Disp-FLI*

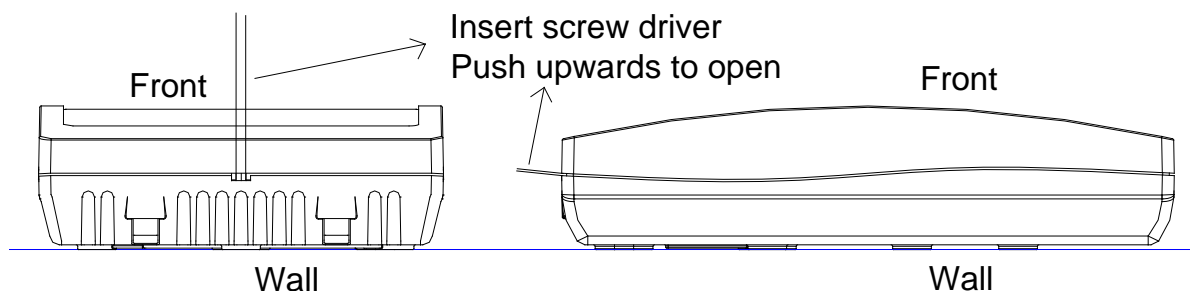
### General

The alarm product *CF3-W-US-Disp-FLI* is designed to measure carbon dioxide (CO<sub>2</sub>) in rooms. Option - Disp displays the measured CO<sub>2</sub> value in ppm (parts-per-million) on the LCD. LEDs are lit to give an overview of the CO<sub>2</sub> value.

An acoustic alarm sounds when the CO<sub>2</sub> value is above 1400ppm. The acoustic alarm can be silenced with a push button on the side of the instrument.

The units are designed for connecting to Direct Digital Control (DDC) with 0-10V signal inputs.

### To open the wall mounted housing



*Figure 1. Closed housing seen from the top and the side. The housing is opened by inserting a screw driver and pushing to the front side of the housing. The locking hooks will then be released.*



*Figure 2. Closed housing seen from the side. The housing is opened by inserting a screw driver and pushing left (to the front side). The locking hooks will then be released.*



*Figure 3. Closed housing seen from the side. Never push to the right. The locking hooks may break and the housing is damaged*

## Dimensions

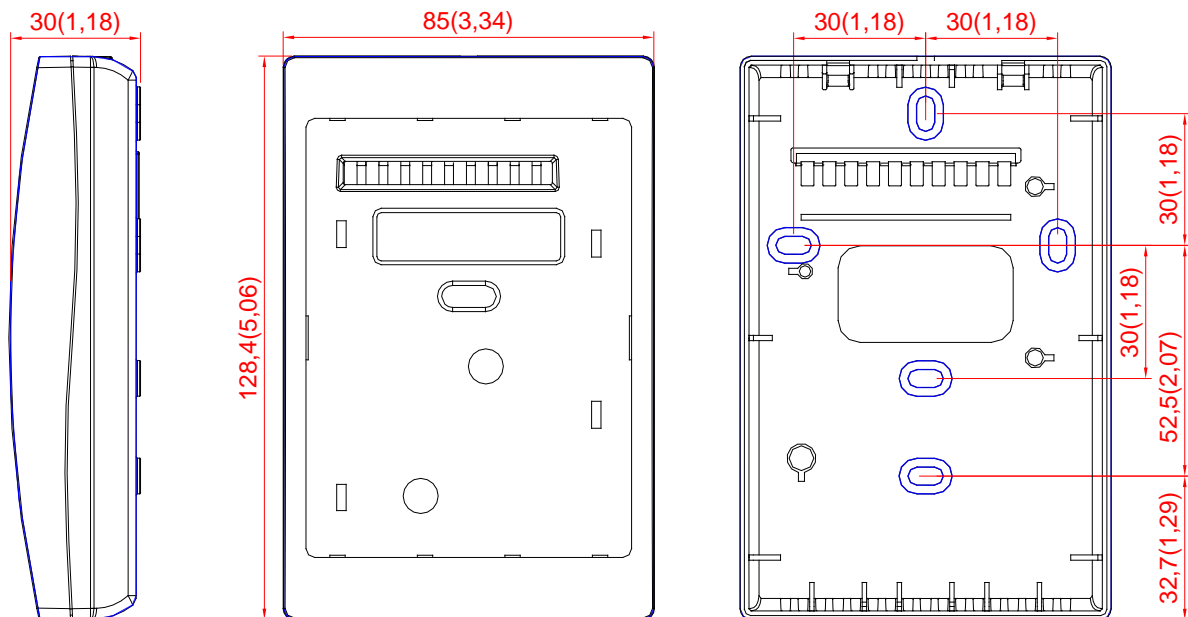


Figure 3. The dimensions of the sensor in mm and (inches)

## Electrical connections

The power supply has to be connected to +~ and  $\perp$ .  $\perp$  is considered as system ground. The same ground reference has to be used for the CF3-W-US-Disp-FLI unit and for the DDC/signal receiver.



system!

**PLEASE NOTE!** The same ground reference has to be used for the CF3-W-US-Disp-FLI unit and for the control

Terminal	Function	Electrical data	Remarks
+~	Power (+)	24 VAC/DC+ (+20%), 2W	
$\perp$	Power ground (-)	24 VAC/DC-	System voltage reference
OUT1	Analogue output 1 (+)	0-10 VDC	0-2000 ppm CO <sub>2</sub>
OUT2	Silences the acoustic alarm		A push on the push button silences the acoustic alarm for 30 minutes.

Table I. Connections of the main terminal of CF3-W-US-Disp-FLI

LED Colour	Electrical data	Remarks
Green	0VDC	
	10VDC	Lit between 0-800 ppm CO <sub>2</sub>
Yellow	0VDC	
	10VDC	Lit between 800-1400 ppm CO <sub>2</sub>
Red	0VDC	
	10VDC	Lit above 1400 ppm CO <sub>2</sub> . Buzzer sounds.

Table II. The LEDs

## Self-diagnostics

The system contains complete self-diagnostic procedures that are executed automatically when the sensor is in operation. Sensors with display show a wrench if an error is found. The wrench is shown during the first seconds after power up and if the measuring range is exceeded.

## Maintenance

The CF3-W-US-Disp-FLI is basically maintenance free in normal environments thanks to the built-in self-correcting ABC algorithm.

**PLEASE NOTE!** The sensor accuracy is defined at continuous operation (at least 3 weeks after installation)

Electronic products should be disposed of via a suitable recycling centre.

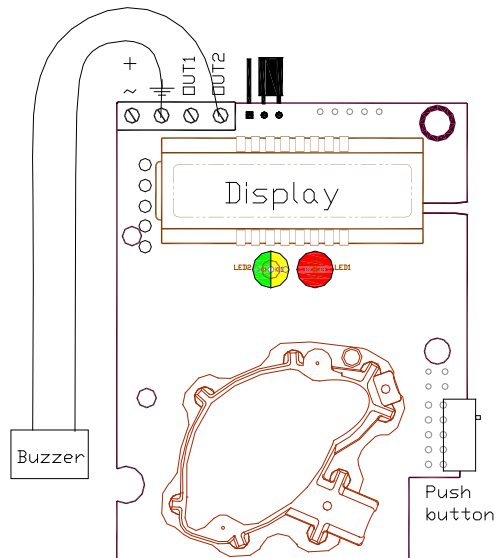


Figure 3. The CF3-W-US-Disp-FLI PCB

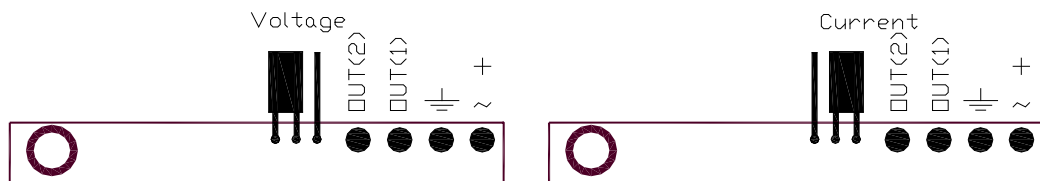


Figure 4. The upper part of the CF3-W-US-Disp-FLI PCB seen from the back with the jumper in voltage (default) and current position



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