



Installation manual

CF8-D/W-IN

General

The *CF8-D/W-IN* is used to measure the carbon dioxide concentration inside incubators.



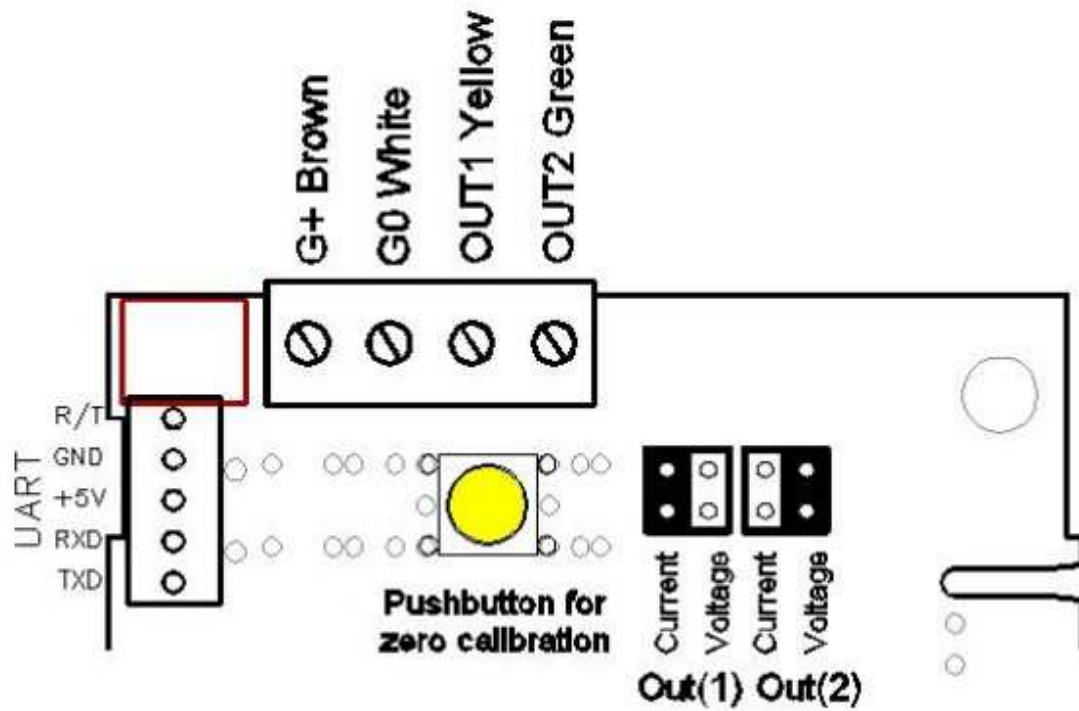
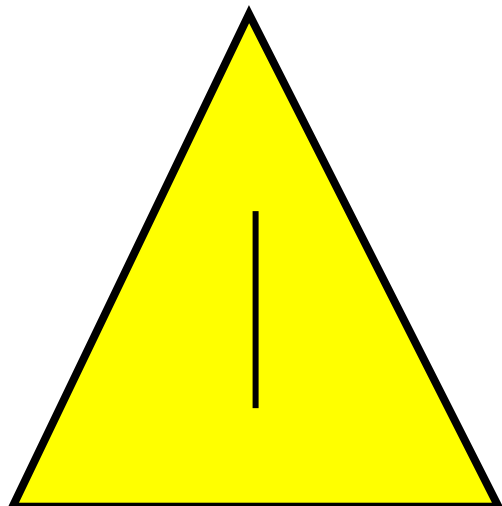


Figure 1. Terminals and jumpers on [CF8-D/W-IN](#). The darker positions are default settings. The push button is for forcing a manual zero point calibration if the sensor does not enter the automatic zero calibration mode just by flowing zero gas.



Electrical connections

The power supply has to be connected to G+ and G0. G0 is considered as system ground. *The same ground reference has to be used for the CF8-D/W-IN unit and for any connected device!* Unless different transformers are used, special precautions need to be taken.



PLEASE NOTE!

The signal ground *is not* galvanically separated from the CF8-D/W-IN power supply!

The same ground reference has to be used for the CF8-D/W-IN unit and for any connected device!

If possible keep the sensor powered up after mounting in order to avoid condensation. Connect the analogue output before measuring.

When the installation is complete an automatic zero point calibration (AZC) must be done. An automatic zero point calibration (AZC) must be done at least once a year according to warranty limitations.

Connection Terminal	Function	Electrical Data	Remarks
G+	Power (+)	24 VAC/DC+ (+20%), 3W	Brown 2W without output load
G0	Power ground (-)	24 VAC/DC	White See note 1!
OUT 1	Analogue Output 1 (+)	4-20 mA or 2-10VDC	Yellow According to positions of OUT1 jumper. See note 2 and 3!
OUT 2	Analogue Output 2 (+)	0-10mA or 0-5VDC	Green According to positions of OUT2 jumper. See note 2 and 3!

Table I. Electrical terminal connections for CF8-D/W-IN

Note 1: The ground terminal is used as negative power supply DC input or AC phase ground G0 (halfwave rectifier). The signal ground is the same as power ground G0 (permitting a "3-wire" configuration). A single transformer may be used for the entire system.

Note 2: CF8-D/W-IN can deliver both a voltage or a current loop for OUT1/OUT2. To change between voltage and current output mode the hardware jumpers are used. There is one jumper for OUT1 and one for OUT2, so that one output can be a voltage output and the other a current output.

Note 3: During start up the unit may deliver up to 10 VDC or 20 mA for up to half a second.