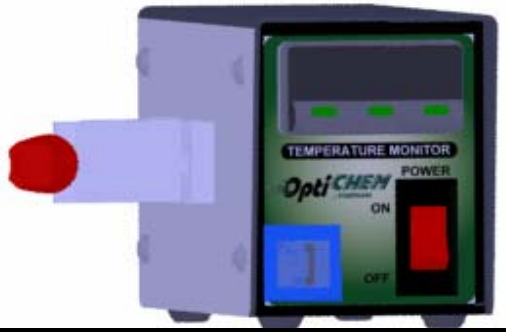
OptiCHEM By CHEMGLASS

Digital Temperature Monitor

CG-3498-01
CG-3498-20



OPERATIONS MANUAL

CHEMGLASS
3800 North Mill Road • Vineland, NJ 08360 • USA
Tel: 1-800-843-1794 • Fax: 1-800-922-4361
Web: www.cglifesciences.com

REV: CG12A

FEATURES:

1. Digital LED Display.
2. Illuminated ON/OFF Switch.
3. Circuit protection.
4. +/- 1 °C Accuracy.
5. Detachable Power Cord.
6. Audible Alarm

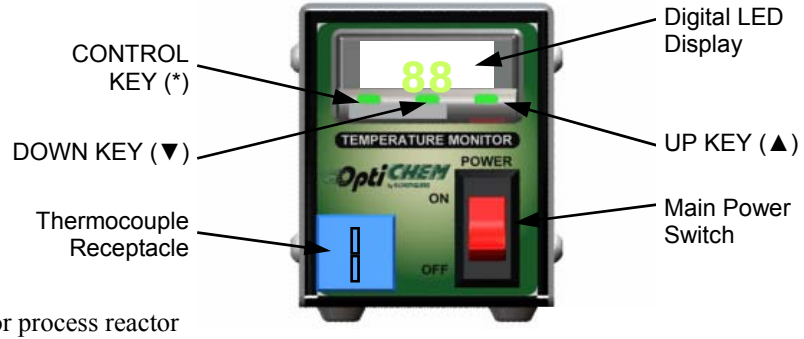


Figure 1

GENERAL USE:

The *Opti-CHEM*® CG-3498-01 is designed to monitor process reactor temperatures and other laboratory equipment and activate an 85 dB alarm should the temperature rise above a set point input by the user. The set point value is set to 50°C at the factory.

SET-UP and OPERATION see Figure 1:

1. Plug the detachable power cord into the unit and a 120VAC or 240VAC Power source. The *Opti-CHEM*® CG-3498-01 is set up for either 120VAC or 240VAC operation.
2. Insert a thermocouple plug into the corresponding thermocouple receptacle. The color and size of the thermocouple plug and receptacle must match.
3. Switch the Power Switch on the unit to the "ON" position. The switch will be illuminated.
4. The current temperature will be displayed on the digital readout after a system check.
5. Place the thermocouple probe into the medium to be monitored. NOTE: Probe should not be in contact with bottom or sides of heating vessel, and should be submerged 2/3rds of medium content.
6. Enter the desired high temperature set point via the Controller's keypad. Press and hold the ✱ key, then press ▲ key to increase or, press ▼ key to decrease set point. Once set, the Controller will display the actual temperature of the medium being measured. The set point can be displayed at anytime by pressing the ✱ key.
7. During operation, if the measured temperature exceeds the set point value, the alarm will sound. The alarm will continue to sound until the measured temperature falls below the set value, or the set value is increased above the measured temperature. Note: the sensitivity of the over temp function is set at +.1°C over set point.

CONTROLLER CONFIGURATION *factory settings (T type)*:

LEVEL 1

tune	band	int.t	der.t	dac	cyc.t	ofst	sp.lk	set.2	bnd.2	cyc.2
off	.1	off	off	.5	on.of	0.0	off	0.0	.1	on.of

LEVEL 2

sp1.p	hand	pl.1	pl.2	sp2.a	sp2.b	disp	hi.sc*	lo.sc*	inpt*	unit
100	off	100	100	dv.hi	none	0.1°	250	-199.9	t	°C

LEVEL 3

sp1.d	sp2.d	burn	rev.d	rev.l	span	zero**	check	read	data	ver	rset
ssd	rly	up.sc	1d2d	1i2n	0.0	#.#	off	var	ct A	3	none

*for Type "K" thermocouple - hi.sc=999.9, lo.sc=-50, inpt=k **zero value is set at factory

Changing Display from °C to °F

The display units can be changed by depressing both the ▲ and ▼ keys simultaneously. Once "***tune***" is displayed, the keys may be released. Then depress the ▼**,** until "***LEVL"*** is displayed. Depress and hold the ***** key. Then press the ▲**,** until the display reads "***2",*** then release the ***** key. Now depress the ▲**,** until the display reads "***unit"***. The display will alternate between "°***C***" and "***unit"***. Depress and hold the ***** key. Then press the ▲ to display ***"°F",*** then release the ***** button. The change will be saved by either depressing both the ▲ and ▼ keys simultaneously and releasing when the measured temperature is displayed. Or, if no other keys a pressed after about 60 seconds the changes will be saved and the measured temperature will be displayed.

Changing Sensitivity of Alarm set point - Factory set to +.1°C

The alarm set point sensitivity can be changed by depressing both the ▲ and ▼ keys simultaneously. Once "***tune***" is displayed, the keys may be released. Then press the ▲ until "***bnd.2***" is displayed. Depress and hold the ***** key. Then press the ▲ to enter the desired sensitivity value**,** then release the ***** button. The change will be saved by either depressing both the ▲ and ▼ keys simultaneously and releasing when the measured temperature is displayed. Or, if no other keys a pressed after about 60 seconds the changes will be saved and the measured temperature will be displayed.

SPECIFICATIONS:

Sensor Types -

TYPE	RANGE °C	RANGE °F	COLOR	ACCURACY °C
CG-3498-01 (T)	-200 to 250	-273 to 482	Blue	+/- 1
CG-3498-20 (K)	-50 to 1200	-58 to 2192	Yellow	+/- 1

Supply Voltage - 120VAC or 240VAC +/-10%, 50-60 Hz
Ambient Temperature - 0 to 50°C, 32 to 130°F

Dimensions h x w x d (in) - 3 x 2½ x 5
Fuse - 1A/250V, 5 x 20 mm, fast acting

TROUBLESHOOTING:

Problem	Possible Cause	Corrective Action
"inPt" "FAiL" flashes	Temperature sensor is unplugged, corroded, or broken	Ensure Sensor is plugged in. Clean, or replace
No display when switch ON	Blown fuse, no power from source	Replace fuse. Check source circuit

Warranty

Chemglass, Inc. warranties this unit against defects in material and workmanship for a period of two years from the date of sale. If the unit should malfunction, it must be returned for evaluation. If the unit is determined to have a defect in materials or workmanship, then it will be repaired or replaced at no charge. Tampering with the unit or damage resulting from excessive current, heat, moisture, vibration, corrosive materials, or misuse will void this warranty. Programming changes or reconfigurations are not covered under warranty.

To return this item under warranty, advise the Chemglass technical service department of the situation and they will provide you with a return authorization number. The unit will be evaluated and repaired as required in accordance to the warranty.

Please contact the Chemglass technical service department with warranty repair information.
Chemglass technical service department:
Tel: 1-800-843-1794 ext. 2124
Fax: 1-800-922-4361
Email: technical-service@chemglass.com