

General Specifications

Model FC500G
Free Available Chlorine Analyzer
(Non-reagent Type)

EXA FC

GS 12F5A2-E

The Model FC500G is designed to measure free available chlorine without using reagent, and achieved a long maintenance period with electrode cleaning system.

SPECIFICATION

Measured Object:
Free available chlorine contained in tap water

Measuring System:
Polarographic method using rotating electrode

Measuring Ranges:
0 to 1 / 0 to 2 / 0 to 3 mg/l (Model FC500G-1)
0 to 5 / 0 to 10 mg/l (Model FC500G-5)
(Air purge is necessary.)

Indication: Digital (3 1/2 LCD)

Output Signal:
4 to 20 mA DC (Load resistance: Maximum 500 Ω)

Operating pH Range of Sample Solution:
pH 6.5 to 7.5: For measured liquids whose pH exceeds the above limits, error increases (refer to the following figure).

Sample Solution Temperature:
0 to 40 °C (temperature compensation range 5 to 35 °C).

Sample Solution Pressure:
1 to 30 kPa (for without VALVE)
1 to 150 kPa (with VALVE)

Sample Solution Flow Rate:
0.1 to 2.5 l/min (at cell inlet)

Sample Solution Conductivity:
100 to 300 μS/cm

Sample Solution SS (Suspended Solid):
10 mg/l or less

Air Purging (for only 0 to 5 / 0 to 10 mg/l Range)
Supply Air Pressure:
About 50 to 140 kPa

Air Consumption:
About 5 l/min

Electrode:
Indicator Electrode:
Rotating gold electrode

Counter Electrode:
Silver electrode (with Pt 1000 installed)

Electrode Cleaning:
Glass beads used for cleaning

Wetted Part Materials:
Measuring Tank:
Acrylic resin (molding)

Piping: Flexible PVC and PE

Color: Muncell 5Y7/1

Finish: Baked polyurethane resin coating

Mounting: On the wall or 2 inch pipe



Ambient Temperature:
-5 to 50 °C

Power Supply:
100 or 110 V AC; or 200 or 220 V AC as per order ±10 %, 50 or 60 Hz

Power Consumption:
Approximately 15 VA (100 or 110 V),
20 VA (200 or 220 V)

Weight: Approximately 6.5 kg

Characteristics:
Reproducibility:
2 % of full scale

Linearity: ±5 % of full scale


Stability:
Zero Drift: Within ±1 % of full scale/month
Span Drift: Maximum -10 % of full scale/month

Response Time:
Approximately 2 minutes (time required to obtain a value within 90 % of final value)

Ambient Temperature Influence:
±0.5 % of full scale/10 °C

Power Voltage Fluctuation Influence:
±0.5 % of full scale/10 % of rated voltage

Sample Solution Temperature Compensation Error:
±3 % of full scale/5 to 35 °C

EMC Regulatory Arrangement in Australia and New Zealand: 
EN 55011 Class A, Group 1

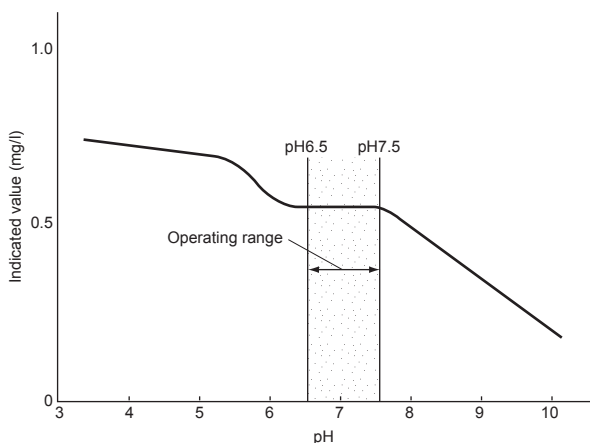


Figure 1 Sensitivity characteristics of diffusion current by pH value

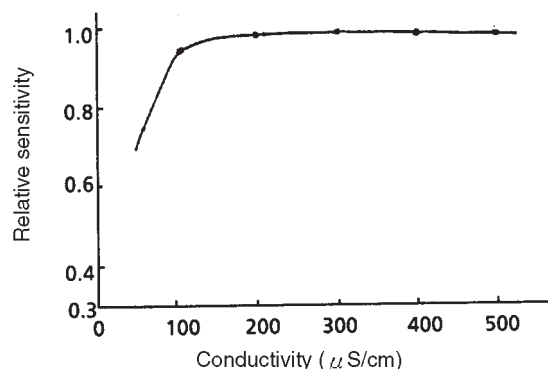


Figure 2 Sensitivity characteristics of diffusion current by conductivity

Note: If conductivity exceeds 300 $\mu\text{S/cm}$, default value of applied voltage should be changed.

■ ACCESSORIES

- Fuse (1 A).....4 pcs.
- Glass Beads1 (2 bags)
- Allen Wrench2 pcs.
- Screwdriver (flat blade) 1 pc.
- Polishing Powder.....1 bottle

■ MODEL AND SUFFIX CODES

1. (Non-Reagent Type) Free Available Chlorine Analyzer

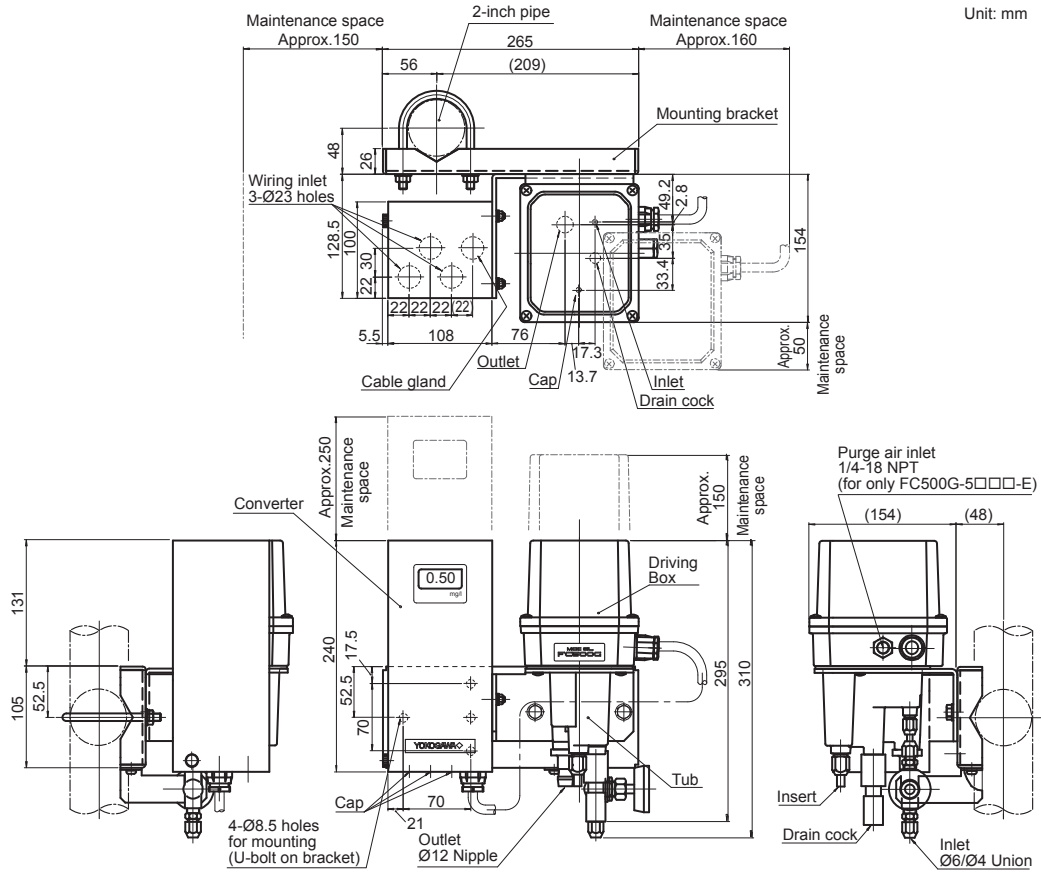
Model	Suffix Code	Option Code	Description
FC500G	.....	.....	Free Available Chlorine Analyzer
Range	-1 -5	.....	0 to 1 / 0 to 2 / 0 to 3 mg/l Switchable 0 to 5 / 0 to 10 mg/l Switchable
Output signal	1	.....	4 to 20 mA DC
Power	3 4 5 6	.....	100 V $\pm 10\%$, 50/60 Hz 110 V $\pm 10\%$, 50/60 Hz 200 V $\pm 10\%$, 50/60 Hz 220 V $\pm 10\%$, 50/60 Hz
Inlet Valve	0 1	.....	Without Valve With Valve
Language	-E	.....	English

2. Spare Parts

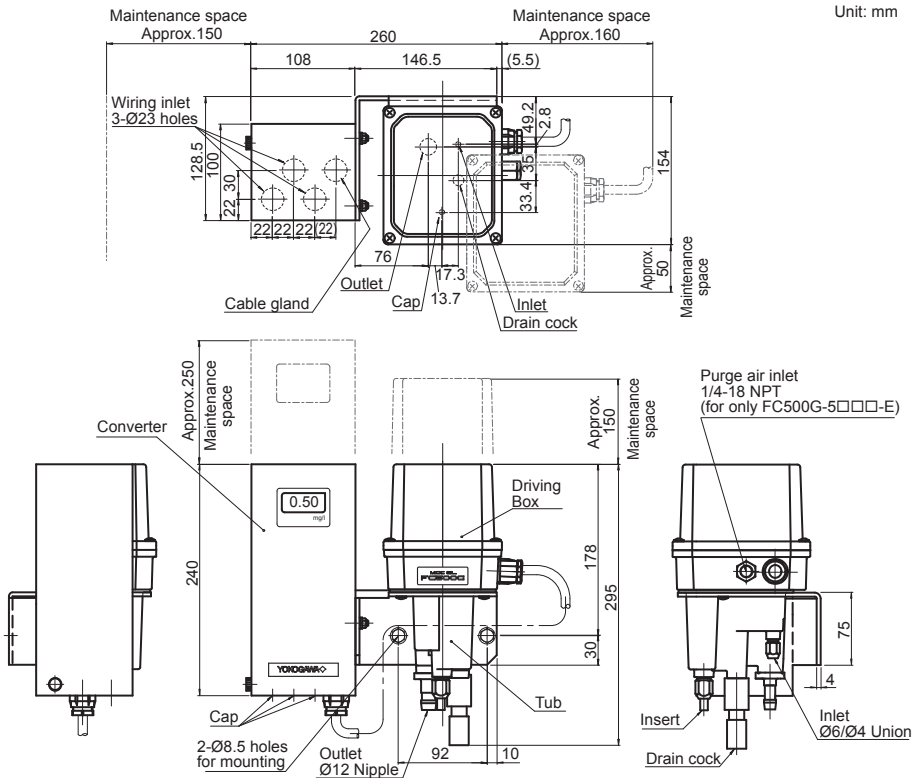
Name	Parts No.	Note
Indicator Electrode	K9332MB	Rotating Electrode
Counter Electrode	K9332MK	Reference Electrode
Glass Beads	K9332ZJ	Washing Indicator Electrode (2 bags)
Polishing Powder	K9088PE	Polishing Indicator Electrode
Brush	K9332JX	
Slip Ring	K9332JZ	
Grease	K9044FX	

EXTERNAL DIMENSIONS

(1) With Inlet Valve (FC500G-□□□1-E)



(2) Without Inlet Valve (FC500G-□□□0-E)



Inquiry Sheets for Model FC500G Free Available Chlorine Analyzer

1. General Information

Name of your company; _____
Person in charge; _____ Belongs to: _____ (TEL. _____)
Name of Plant; _____
Measuring point; _____
Purpose of use; Indication Record Alarm Control
Power supply; _____ V AC, _____ Hz

2. Measuring Conditions

- (1) Liquid temperature; _____ to _____, Normal _____ [°C]
- (2) Liquid pressure; _____ to _____, Normal _____ [kPa]
- (3) Flow rate; _____ to _____, Normal _____ [l/min]
- (4) Ammoniacal Contaminants; No Yes
- (5) Slurry or soiling components; No Yes
- (6) Name of measured liquid; _____
- (7) Composition of measured liquid; _____
- (8) Other; _____

3. Installation Location

- (1) Ambient temperature; _____
- (2) Installation location: Indoors _____
- (3) Other; _____

4. User Requirements

- (1) Measuring range; _____ to _____ mg/l
- (2) Transmission output; 4 to 20 mA DC _____
- (3) Selection of component instruments; Free Chlorine Analyzer Accessories
- (4) Other; _____