# SPECIFICATION SHEET

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# Reagentless Free Chlorine Analyzer Detector

CD-36D CLR-21-A

The model CD-36D is for controlling and monitoring the free chlorine in a faucet feed line or water in a swimming pool. The instrument features compact and light weight system, sample-saving and easy maintenance. Measured value is transmitted via 4 - 20 mADC output.

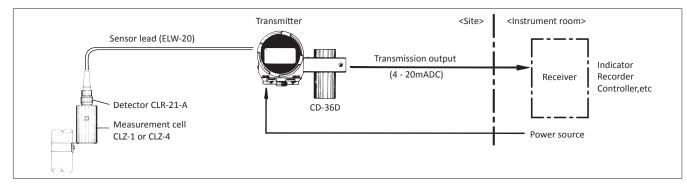
#### **Standard Specifications**

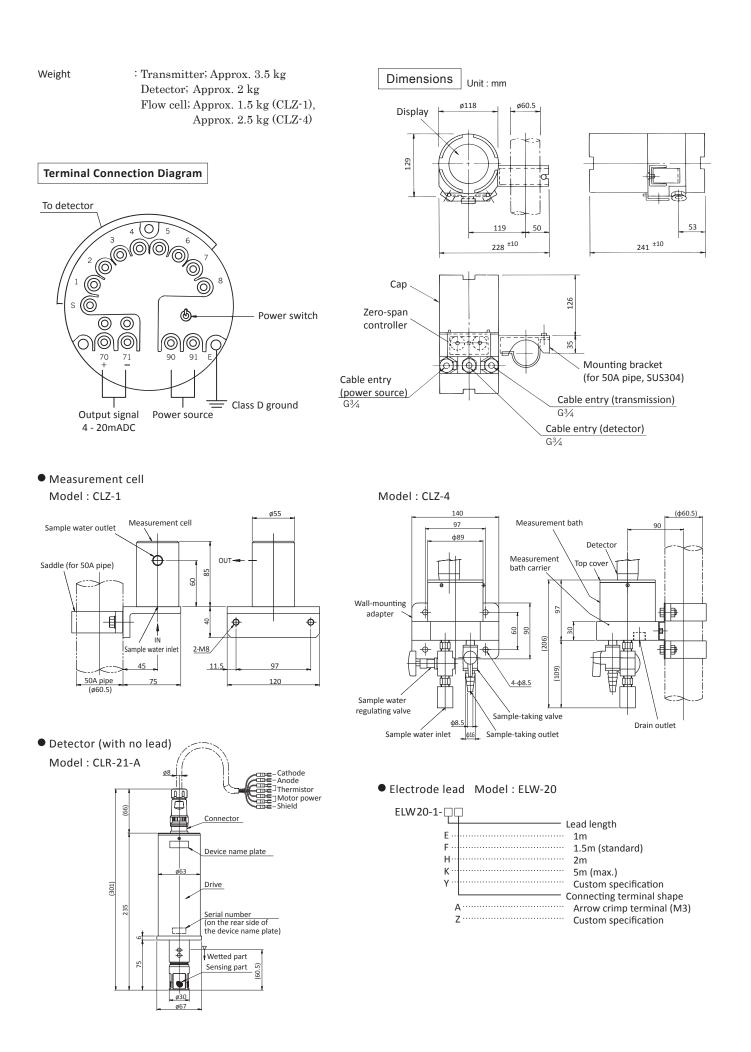
Product name	Reagentless Free Chlorine Analyzer
Model	: CD-36D
	CLR-21-A (with no lead)
	ELW-20, standard length 1.5 m
	: CLZ-1 (standard) or CLZ-4 (with valve)
	t: Free chlorine, such as drinking water
Wedsurement objec	or swimming pool water
Measurement metho	
	Cleaning of beads using the rotation of
method	the swing rotary
	e: Either of the following (switchable by
weasurement range	internal switch)
	(1) 0 · 1mg/L (2) 0 · 2mg/L (3) 0 · 3mg/L
Linearity	: within ±0.1mg/L (with chlorine
Encontry	standard solution at 0 - 2 mg/L range)
Repeatability	: within ±0.1mg/L (with chlorine
Repeatability	standard solution at 0 - 2 mg/L range)
Indication	: Liquid crystal digital reading
Indication range	: 0.00 - about 4.90 mg/L; minimum
	reading of 0.01 mg/L
Temperature compe	ensation range : $0 \cdot 40^{\circ}$ C
	Set to the analytical value of, for
	instance, the DPD method
Sample water	; pH; 5.5 - 8.6 pH(variation within 1pH)
conditions	Electrical conductivity; 8mS/m or more
	(CLZ-2 should be used if electrical
	conductivity is low)
	Temperature; 0-40°C (no freezing)
	Pressure; 0.01 - 0.15MPa
	Measurement cell flow rate; 50-200
	mL/min.
Ambient temperature	e and humidity $ m : 0$ - $ m 50^{\circ}C$ and $ m 85\%(RH)$ or lower



Output	: 4 - 20mADC (load resistance; 600Ω or under) ground insulation type				
Power supply	<ul><li>Either of the following (designation necessary)</li><li>(1) 100VAC 50/60Hz</li><li>(2) 110VAC 50/60Hz</li></ul>				
	(3) 115VAC 50/60Hz (4) 120VAC 50/60Hz (5) $2000$				
	(5) 200VAC 50/60Hz (6) 220VAC 50/60Hz (7) 240VAC 50/60Hz				
Power consumptior					
Cable entry	: G 3/4 (PF 3/4) 3  locations				
	Providing one is used for electrode lead wire				
Pipe connection	: CLZ-1; Sample water inletRc 1/4 (PT 1/4)				
	Drain outlet; Rc 1/4 (PT 1/4)				
	CLZ-4; Sample water inletRc 1/2 (PT 1/2)				
	Drain outlet; Rc 1/2 (PT 1/2)				
Structure	: Indoor unit				
Construction	: Transmitter; IP55				
	Detector; IP52				
	In order to use the product outdoors,				
	the detector must be rain proofed.				
Mounting	: 50 A (external diameter; 60.5 mm),				
	with pipe installation				
Materials/Surface	: Transmitter; AC4C (cast aluminum),				
finish	metallic silver and blue coating				
	Detector; A1050P (aluminum pipe),				
	Equivalent to Munsell 5PB8/1 (Wetted part:PVC, SUS304)				
	Flow cell; Acrylic resin (CLZ-1), Acrylic resin, PVC (CLZ-4)				

## System configuration





#### Product code

4- L							
Г	-	-	<b>—</b>				Power supply voltage
А			<b>.</b>	Į			100VAC, 50/60Hz
В			. <b>.</b>	<b> </b>			110VAC, 50/60Hz
C				<b> </b>			115VAC, 50/60Hz
D				Į			120VAC, 50/60Hz
E		· .					
F		· . · .		Į			
G		· ·  · ·		Į			
	L	+		-		<u> </u>	Measurement range
	1	· .		<b> </b>			0-1
	2	· .		<b> </b>			0-2
	3	· .		<b> </b>			0-3
			-	-			Measurement unit
		А		···			····· mg/L (standard)
		в		···			····· ppm
				-		-	Cable port adapter
			0	···			······ None, G3/4 (PF3/4) (standard)
			1	<b> </b>		· ·	G1/2 (PF1/2), SUS304
			2	<b> </b>		··	····· NPT1/2, SUS304
						-	Applicable detector *1
			(	<u>э</u>			····· None
				1			······ CLR-21-A (the ELW-20 electrode lead must be ordered separately)
			5	з··			Custom specification
							Applicable flow cell *2
				(	) • •		····· None
					L··	··	CLZ-1: No flow regulating valve provided
				1	2 • •	··	CLZ-4: Flow regulating valve provided
				3	3 • •	··	····· CLZ-1 equipped with CLZ-2 pure water measurement column
							Optional components for pole stand assembly *3
					A	٠	····· Not required
					E	3.	Required (the B-150 or ZB-1 must be ordered separately)
							Markings
						0	Japanese (standard)
						1	English

- \*1. This instrument can be used together with the CLR-21-A detector.
- \*2. There are two available types of flow cells: a valve equipped cell and valveless cell. Each type is equipped with a mounting bracket for a 50A pipe.

Flow cell	Sample inlet	Sample outlet	Sample flow regulating valve	Sample-taking valve for manual analysis
Model CLZ-1	Rc1/4	Rc1/4	None	None
Model CLZ-4	Rc1/2	Rc1/2	Included	Included

The CLZ-2 pure water measurement column is required when the conductivity of the sample is 8mS/m ( $80\mu S/cm$ ) or less. \*3. When mounting the transmitter, detector, and flow cell on a pole stand, select one of the following stands:

Product code: B150-3-C□-S "Custom specification: Includes item xx "

ZB-1-1-BD- S "Custom specification: Includes item xx '

Note1: This instrument is for controlling and monitoring the free chlorine in a faucet feed line or water in a swimming pool. The system components can be assembled to form a compact unit. The sample inlet pressure ranges from 0.01 to 0.15 MPa. The flow rate ranges 50 to 200 mL/min.

The indication range is from 0 to approximately 4.90 mg/L (ppm). The transmission output for each measurement range is 4 to 20mA DC.

Note 2:When you separately order an individual product, such as an optional component, spare part, detector, or flow cell to be used together with the device, make sure to specify the corresponding product code from the following table:

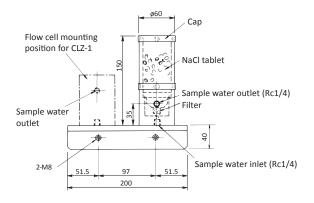
Product name and specifications	Product code	
Detector for residual chlorine analyzer (no lead type)	CLR21A-0-1	
Flow cell (valveless) for free chloride electrode	CLZ1-0-1	
Pure water measurement column (includes mounting brackets and NaCl tablets, Rc 1/4 inlet/outlet)	CI 72-0-1	
*Required when the conductivity of the sample is 8 mS/m (80 µS/cm) or less.	CL22-0-1	
Spare NaCl tablets (500g)	Code No. 143A203	
Flow cell (valve-equipped) for free chloride electrode	CLZ4-0-1	
Electrode lead	ELW20-1-□F	
Detector for free chlorine analyzer (CLR-21-A)	EL2132-0-Y	

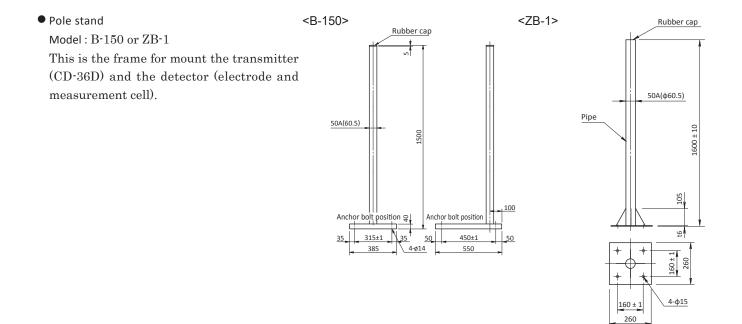
### Optional

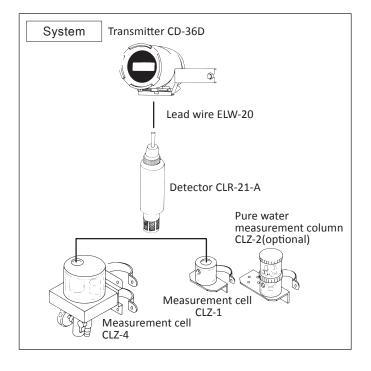
Column for pure water measurement

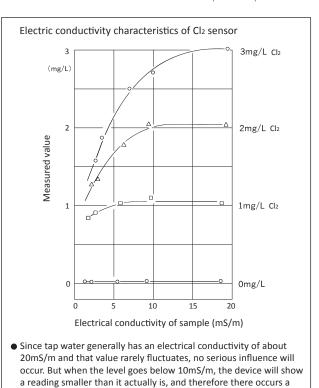
Model : CLZ-2

This is an adaptor that adds NaCl to increase the electrical conductivity of the sample water (less than 80µs/cm) and enable stable measurement of free chlorine in sample water.









substantial problem when measurement is for 2mg/L or more.

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Overseas Sales Division: DKK-TOA Corporation 29-10, 1-Chome, Takadanobaba, Shinjuku-ku, Tokyo 169-8648 Japan Tel : +81-3-3202-0225 Fax : +81-3-3202-5685 Please read the operation manual carefully before using products.