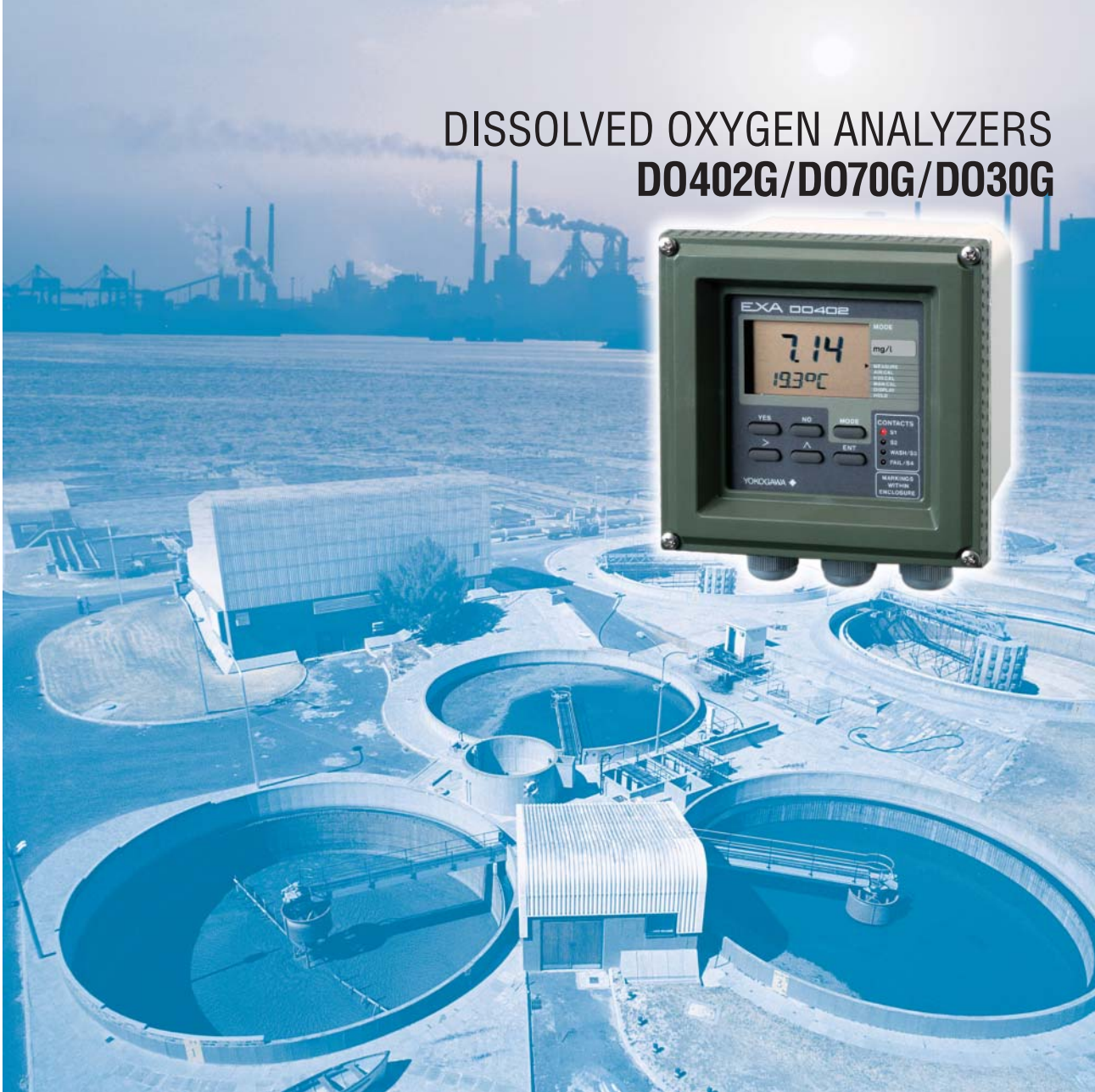


# DISSOLVED OXYGEN ANALYZERS DO402G/DO70G/DO30G



## ***DO402G/DO70G/DO30G***

### *DISSOLVED OXYGEN ANALYZERS*

*The DO402G is dissolved oxygen analyzer system for monitoring water quality in water / wastewater treatment plants and other operations requiring precise measurement of oxygen in process liquids.*

Bulletin 12J05D02-01E

[www.yokogawa.com/an/](http://www.yokogawa.com/an/)

# DO402G/DO70G/DO30G DISSOLVED OXYGEN ANALYZER

EXA DO

Because water quality is critical to your process ... and your world

Responding to the increasing need to measure dissolved oxygen in industrial processes and water and sewage treatment applications due to environment and water quality concerns, we introduced the DOX8C of our DOΣ dissolved oxygen analyzer line in 1983. In the years since, the DOX8C has earned an excellent reputation for reliability. Now, we bring you even higher performance and more advanced functions in our new DO402G Dissolved Oxygen Analyzer.



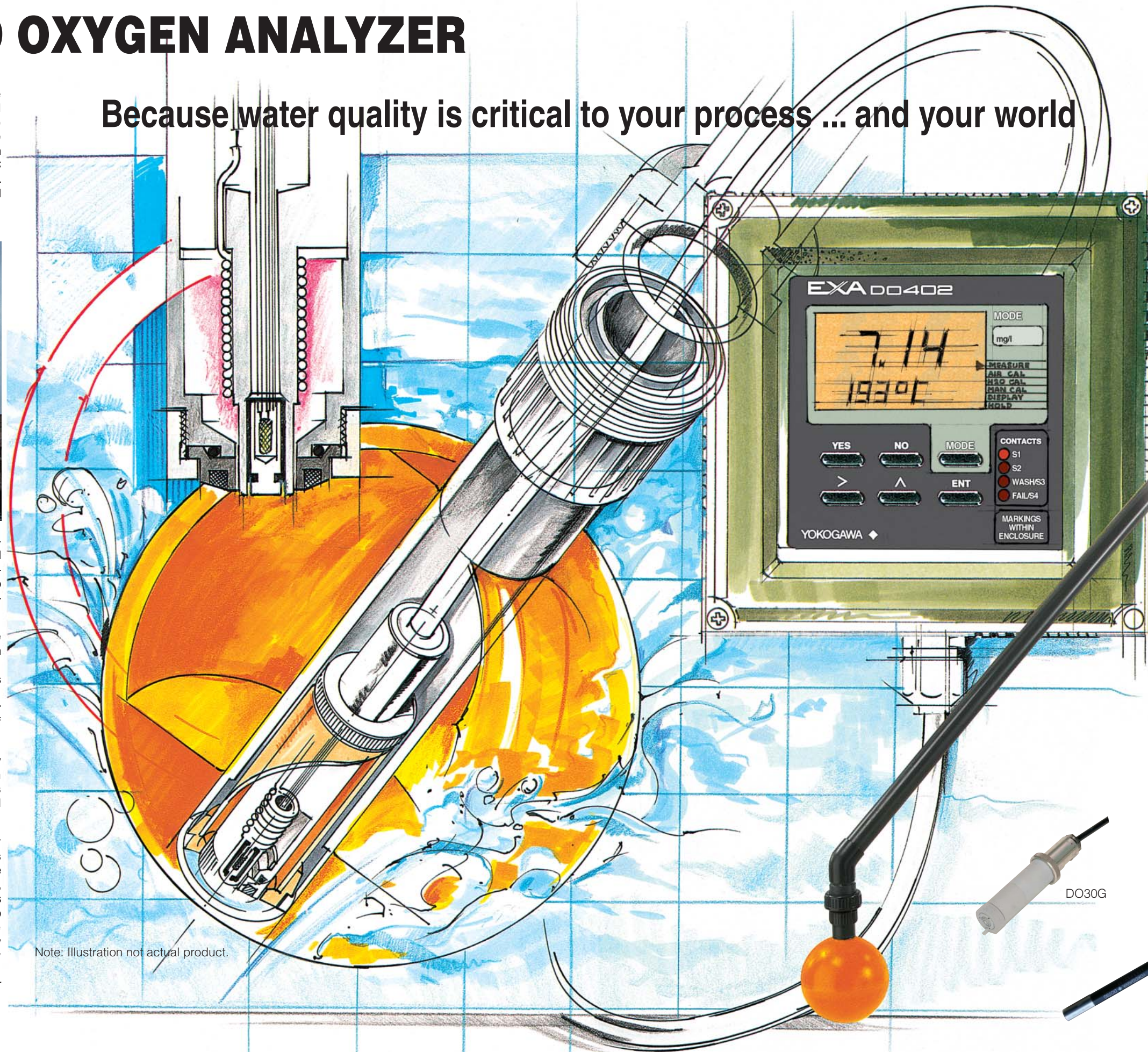
The DO402G supplements conventional temperature compensation with barometric pressure and salinity compensation functions for higher measurement accuracy. Measurement range is a wide 0 to 50 mg/l for both aerobic and anaerobic water treatment applications.

The DO402G converter makes human interface simple. Yes / No dialogues guide operators through programming menus. Automatically compensated values appear in parts per million, mg / liter or percent saturation. Simply select outputs for alarm, control, wash-timer and fault to program the system to any level of sophistication.

In addition, the DO402G converter features easy operation and self-diagnostic functions which detect stability problems and zero-point errors during calibration, as well as temperature and measurement problems during operation.

The DO70G optical dissolved oxygen sensor measures the phase delay of fluorescent signals to quantify dissolved oxygen. Compared with the other sensors based on intensity of fluorescence, the DO70G is resistant to contamination and thus ensures precise measurements. In addition, start-up is much faster than conventional membrane type sensors. The sensor cap, the DO70G's only consumable parts, can be replaced simply by turning it manually.

When the DO402G is used with the DO70G, power supply unit DOX10 is required.



Note: Illustration not actual product.

The DO30G galvanic cell dissolved oxygen sensor achieves stable measurement over a long period thanks to its robust construction against electrolyte deterioration and diaphragm contamination. The cartridge-type 50-mm thick membrane is easy to replace, resistant to tearing, and hardly influenced by air bubbles.

We have also added the DOX8HS diagonal mounting style immersion type holder for greater bubble noise resistance, and a PB350G/360G float type holder with self-cleaning for longer maintenance intervals.

The PB350G/360G float type probe gives you both quicker response and easier maintenance and provides consistent sensor insertion depth without edges or hollows to collect deposits and cause fouling.

Whether you're monitoring activated sludge or river water intake, the Yokogawa DO402G system saves time and money, helping ensure water quality for your process ... and our world.



DO402G



DO30G

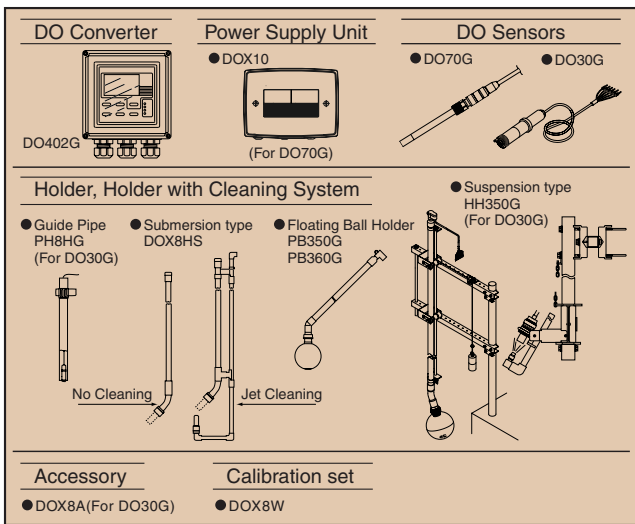


DO70G

## Specification

General	Measurement object	Measurement of dissolved oxygen in aeration tanks at sewage treatment plants
	Applicable sensors	DO70G(Optical sensor), DO30G(Galvanic cell sensor)
	Measurement range	0~25mg/l (ppm) (DO70G), 0~20mg/l (ppm) (DO30G)
	Sample temperature	0~50°C (DO70G), 0~40°C (DO30G)
	Sample pressure	0~500kPa (DO70G), 0~100kPa (DO30G)
Sensor	Measurement range	0~25mg/l (ppm) (DO70G), 0~20mg/l (ppm) (DO30G)
	Flow speed	0~2m/sec (DO70G), 20cm/sec or more (DO30G)
	Cable length	3, 5, 10, 15*, 20m* * for DO30G
Converter	Measurement range	0~50mg/l (ppm)
	Display	3 1/2 digits LCD
	Output signal	Two outputs, 4~20mA DC, Max load 600Ω
	Output range	Dissolved oxygen output: Min. span; 1mg/l, 1 ppm or 10% saturation Max. span; 50 mg/l, 50 ppm or 300% saturation Temperature output: Min. span; 25°C Max. span; 50°C
	Temperature compensation	0~50°C
	Contact output	Four outputs, relay contacts Contact rating; 250V AC, 2A Max. 100VA 250V DC, 2A Max. 50W
	Contact input	One input, remote wash cycle start
	Ambient temperature	-10~55°C
	Humidity	10~90%RH (Non condensing)
	construction	IP65, NEMA4X equivalent
	Housing	Case:Cast aluminum with chemically resistance coating Cover; Flexible polycarbonate window Mounting; Pipe, wall or pane
	Power supply	100, 115, 230V AC±15%, 50/60Hz Power consumption;Max. 10VA
Weight	Approx. 2.5kg	
Dimension	144×144×135mm	

## System Configuration



## Dissolved Oxygen Converter

[Style : S3]

Model	Suffix code	Option Code	Description
DO402G			Dissolved Oxygen Converter
Type	-1		General
Power	-1		115 V +/-15% AC 50/60 Hz
Supply	-2		230 V +/-15% AC 50/60 Hz
Voltage	-5		100 V +/-15% AC 50/60 Hz
Language		-J	Japanese
		-E	English
Mounting Hardware	/U		Pipe, wall mounting bracket (Stainless steel)
	/PM		Panel mounting bracket (Stainless steel)
	/H3		Hood for sun protection (Carbon steel)
	/H4		Hood for sun protection (Stainless steel)
	/SCT		Stainless steel tag plate
	/AFTG		G 1/2
Conduit Adaptor	/ANSI		1/2 NTP
	/X1		Epoxy baked finish *1

\*1: The housing is coated with epoxy resin.

## Optical Dissolved Oxygen Sensor

Model	Suffix code	Option code	Description
DO70G			Optical Dissolved Oxygen Sensor
Insertion Length	-120		120mm
Type	-E		Always-E
Cable Length	-00N		No cable
	-03E		3m *2
	-05E		5m *2
	-10E		10m *2
		-N	Always-N
Adaptor	/S3		For submersion holder, stainless steel
	/PP		For submersion holder, PP
	/FPP		For Floating ball holder, PP
Tag Plate	/SCT		Stainless steel tag plate

\*2: Power supply cable length is added 1.5m to cable length.

Note: When the DO402G is used with the DO70G, power supply unit DOX10 is required.

## Galvanic Cell Dissolved Oxygen Sensor

Model	Suffix code	Option Code	Description
DO30G			Galvanic Cell Dissolved Oxygen Sensor
	-NN		Always -NN
Membrane thickness	-50		50μm
Cable Length	-03		3m
	-05		5m
	-10		10m
	-15		15m
	-20		20m
Cable terminal	-PN		Pin terminal *3
	-FK		Fork terminal

\*3: Specify Pin terminal for DO402G.

Refer to GS12J05D02-00E(DO402G), GS12J05D03-01E(DO30G), GS12J05D04-01E.

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IN ADVANCE

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