



2-Wire Liquid Analyzer **FLXA21**



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FLXA21

Bulletin 12A01A02-01E

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The FLXA21 Modular 2-wire Liquid Analyzer can measure several different liquid properties and supports the use of up to two sensors.

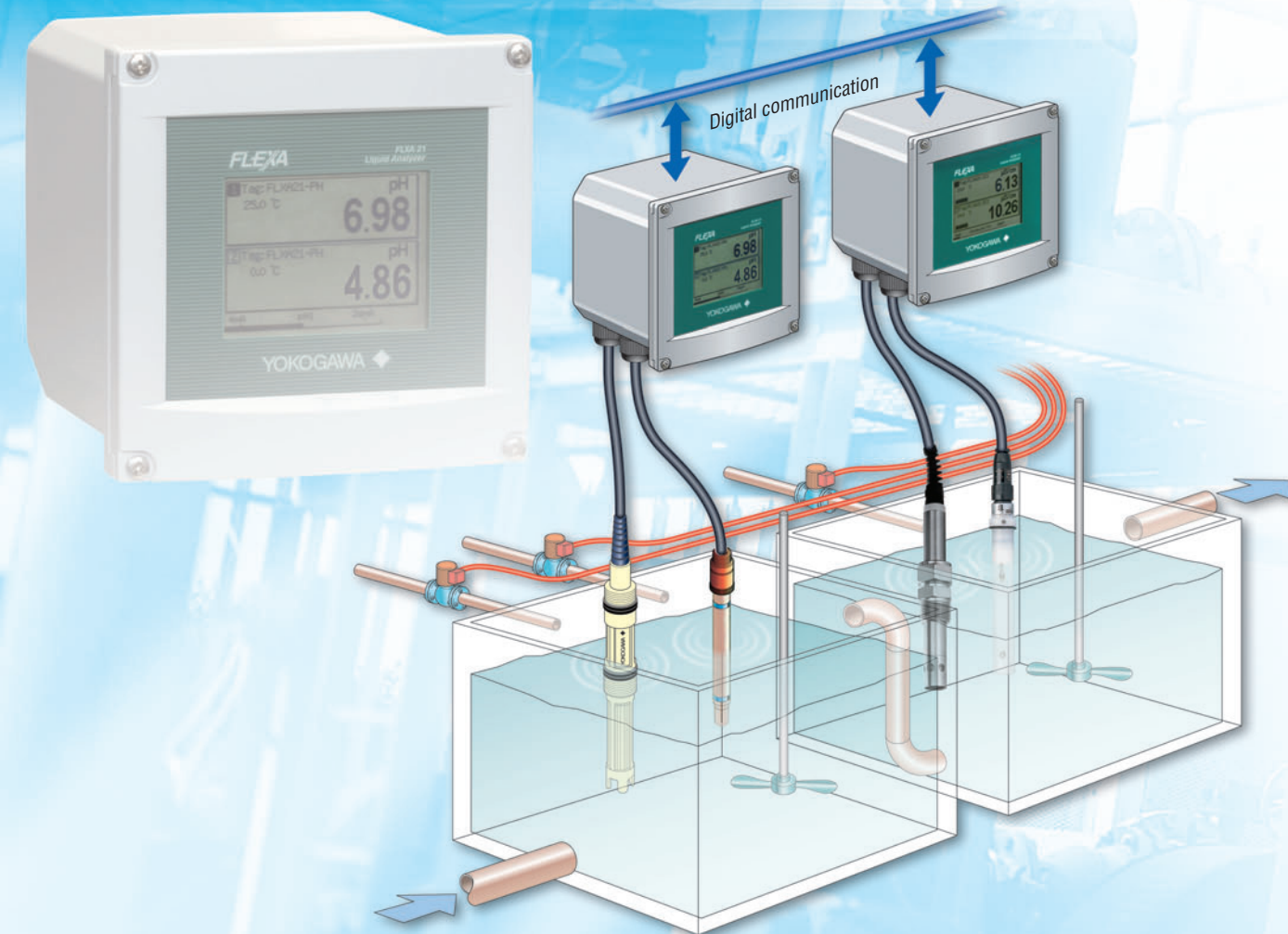
Modular 2-wire Liquid Analyzer

FLXA21

The FLXA21 is a next-generation modular liquid analyzer that can be flexibly configured to measure pH/ORP, contacting conductivity, inductive conductivity, or dissolved oxygen.

The FLXA21 also supports the installation of up to two sensors of the same type, thereby reducing installation costs and saving space in addition to enabling the configuration of a highly reliable redundant system.

It has reliable and advanced features and functions such as a touch screen for improved operability, sensor self-diagnosis, maintenance time estimation, and 12 language display options.



Support of Up to Two Sensors and Digital Communications for Increased Reliability and Reduced Maintenance and Instrumentation Costs

- The FLXA21 supports the use of up to two sensors*. **New feature**
 - * The two sensors must be of the same type.
 - * With inductivity sensors, only one sensor may be connected.
- Redundant system with two sensors increases measurement reliability. **New feature**
- Measurement at two points with a single analyzer reduces installation costs and saves space.

- Interruption-free measurement is assured even during maintenance.
- Digital communications options for reduced maintenance and instrumentation costs
HART communications
FOUNDATION™ Fieldbus and Profibus options will also be available in the future.

Modular Design for Increased Scalability **New feature**

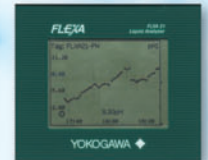
- The modular design enables the construction of a variety of systems.
- System changeover can be done quickly and easily by replacing and adding modules*.
- Users can opt to do without a display and can also select the case material (plastic or stainless steel).
- Intrinsically safe type of ATEX, IECEx, FM and CSA, and non-incendive of FM and CSA.

* Should be done by Yokogawa Service.



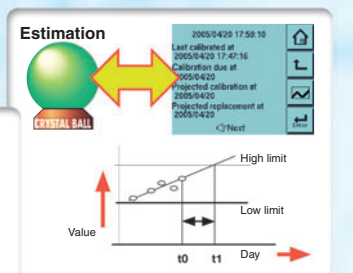
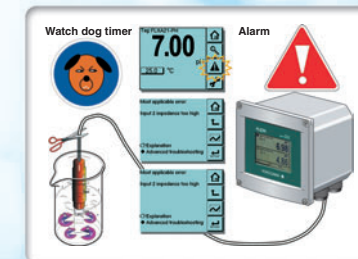
Touch Screen for Improved Operability

- The interactive touch screen is easy to use and helps eliminate operator errors.
- Several different display modes are available.
- In the event of an error, the screen displays an error code and indicates the corrective action to be taken.
- With routine operations, prompts and other messages eliminate the need to consult the instruction manual.



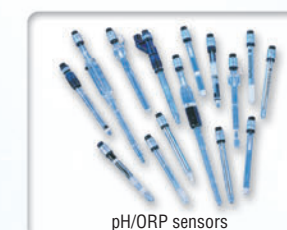
Advanced Functions

- Sensors with self-diagnostics capabilities
Continuous measurement of sensor impedance, asymmetric potential, and slope, and continuous monitoring for electrode contamination/damage, burnout, and decline in measurement liquid level (ex. pH Analyzer)
- Display of sensor status and estimated maintenance time
Save the latest five calibration results and estimate the future maintenance and calibration times.
- Quick setup
Screen instructions (guidance messages) make setup quick and easy.



Full Sensor Line-up for a Broad Range of Applications

- The FLXA21 can be connected to a wide variety of pH/ORP, contacting conductivity, inductive conductivity, and dissolved oxygen sensors.

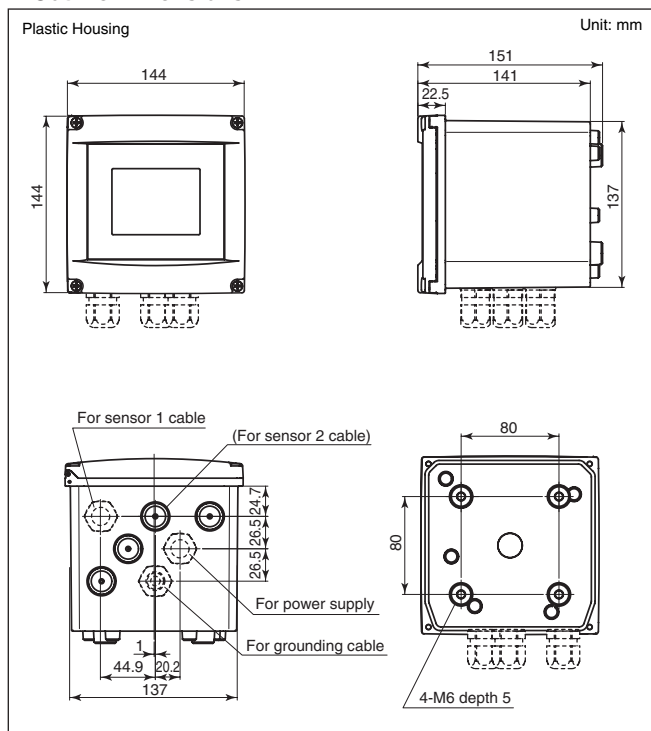


General Specifications

| | |
|---------------------------------|--|
| Housing | Case: Plastic or stainless steel (with or without urethane or epoxy coating) Window: Polycarbonate |
| Protection | IP66 (except Canada), NEMA 4X (except Canada), Type 3S/4X (Canada) |
| Outline Dimensions | Plastic: 144 (L) x 144 (W) x 151 (D) mm Stainless steel: 165 (L) x 165 (W) x 160 (D) mm |
| Weight | Approx. 1 kg (Plastic housing), Approx. 2 kg (Stainless steel housing) |
| Display | Black/white LCD with a touch screen (213 x 160 pixels) |
| Mounting | Pipe, wall or panel mounting Conduit adapter: G1/2, 1/2 NPT or M20 x 1.5 |
| Environmental Conditions | Ambient temperature: -20 to 55°C Storage temperature: -30 to 70°C Ambient humidity: 10 to 95%RH (Non-condensing) |
| Power Supply | Nominal 24 V DC loop powered system |
| Regulatory Compliance | Safety: EN61010-1, UL 61010-1, CSA C22.2 No.61010-1 EMC: EN61326-1 Class A, Table 2 (For use in industrial locations) EN61326-2-3, AS/NZS CISPR11 Korea Electromagnetic Conformity Standard |
| Output Signal | One isolated output of 4 to 20 mA DC, 2-wire system |
| Communication | HART |

Refer to the GS12A01A02-01E for detailed specification.

Outline Dimensions



Model & Suffix Codes

| Model | Suffix code | Option code | Description |
|------------------------------|--|---|--|
| FLXA21 | ----- | ----- | 2-Wire Analyzer |
| Power Supply | -D | ----- | Always -D |
| Housing | -P -S -U -E | ----- | Plastic Stainless steel Stainless steel + urethane coating Stainless steel + epoxy coating |
| Display | -D -N | ----- | Anti-glare LCD Without display (Note 1) |
| Type | -AA -EA | ----- | General purpose ATEX, IECEx, FM, CSA (Note 6) |
| 1st input | -P1 -C1 -C5 -D1 | ----- | pH/ORP Conductivity (SC) Inductive conductivity (ISC) Dissolved oxygen (DO) |
| 2nd input (Note 2) | -NN -P1 -C1 -D1 | ----- | Without input pH/ORP Conductivity (SC) Dissolved oxygen (DO) |
| Output | -A | ----- | 4-20 mA + HART |
| — | -N | ----- | Always -N |
| Language set (Note 3) | -LA | ----- | English and 11 languages |
| Country (Note 4) | -N -J | ----- | Global except Japan Japan |
| — | -NN | ----- | Always -NN |
| Option | Mounting hardware Hood Tag plate Conduit adapter Measurement law | /UM /U /PM /H6 /H7 /H8 /SCT /CB4 /CD4 /CF4 /K | Universal mounting kit (Note 5) Pipe and wall mounting hardware Panel mounting hardware Hood, stainless steel Hood, stainless steel + urethane coating Hood, stainless steel + epoxy coating Stainless steel tag plate Conduit adapter (G1/2 x 4 pcs) Conduit adapter (1/2NPT x 4 pcs) Conduit adapter (M20 x 1.5 x 4 pcs) With Measurement Law certificate (Note 7) |

Notes:

- HMI (Human Machine Interface) is not available on the analyzer. HART communication is to be used. (To enable HART communication, a setup tool is to be provided.)
- When a 2nd input is selected, only the same kind of the 1st input is available. For example, when a 1st input is "P1", the 2nd input must be the same "P1". The combination of ISC and ISC is not available.
- These languages are message languages on the analyzer's display. One analyzer has English and 11 languages. All languages are as follows; English, Chinese, Czech, French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian, Spanish.
- When an analyzer is used in Japan, it must meet the Japanese Measurement Law. Only SI units must be used on the analyzer and its documents in Japan.
- The universal mounting kit contains the pipe and wall mounting hardware (/U) and the panel mounting hardware (/PM).
- The type "-EA" is intrinsically safe type of ATEX, IECEx, FM and CSA, and non-incendive of FM and CSA.
- The analyzer with Japanese Measurement Law certificate is available only for the following model:
FLXA21-D-[Housing code]-D-AA-P1-NN-A-N-LA-J-NN/[option code except /K]/K
Only one pH measurement is certified. The output signal of 4 - 20 mA is certified. HART communication is not certified.

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VigilantPlant is Yokogawa's automation concept for safe, reliable, and profitable plant operations. VigilantPlant aims to enable an ongoing state of Operational Excellence where plant personnel are watchful and attentive, well-informed, and ready to take actions that optimize plant and business performance.

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