

NEW

YOKOGAWA 

World First Instrument

To Obtain IPv6 Ready Logo Phase-1!



ID:01-000273



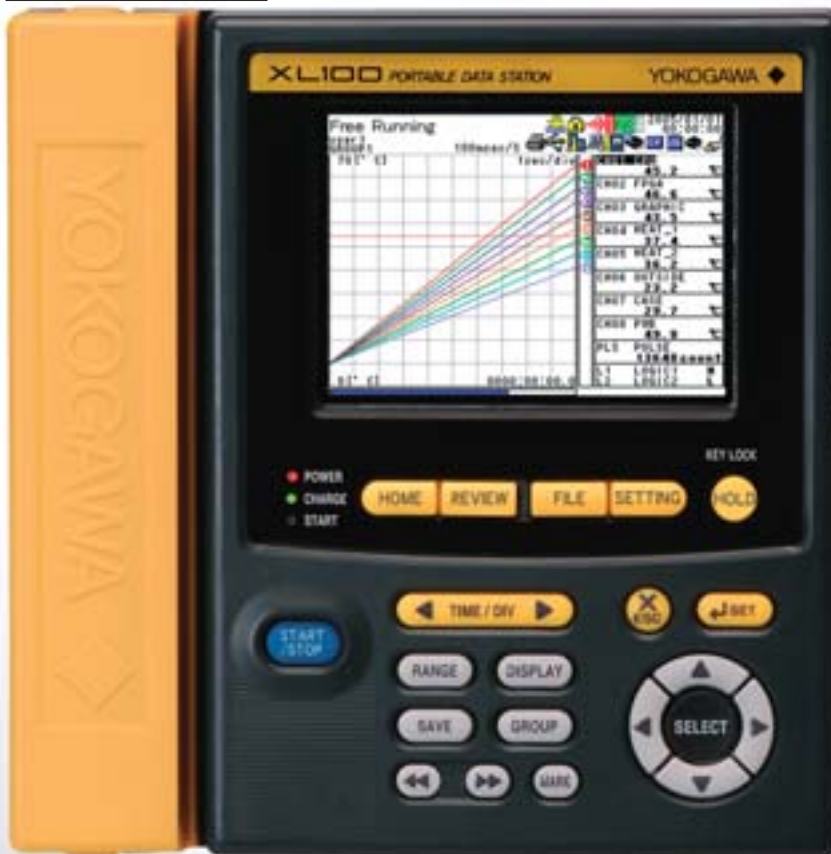
Special Prize
INTEROP Tokyo 2005
Best of Show Award
Won Special Facility Product Prize!

Datum-Y™

Portable Data Station XL100

Network-Based 8-/16-Channel Data Logger
Robust and Easy to Operate

Patent Pending



Size: 155 (W) × 155 (H) × 55 (D) mm
Weight: Approx. 800g (Without battery and rubber boot)

Rubber Boot provides enhanced Impact

Up to 8 hours Continuous Operation by Battery
(When operated under YOKOGAWA's recommended conditions)

Auto Setup & Run by External Memory

**Current/Power Measurement possible by Connecting
To YOKOGAWA's Clamp-On Power Meter**

Yokogawa Meters & Instruments Corporation

LF XL100-E

Compact Body with Advanced Functions and Easy to Operate

Insulated Inputs for All Channels

Allows setting of temperature (thermocouple, resistance temperature detector) and voltage for each channel. Each input channel is insulated plus the unit is equipped with pulse input (1 channel) and logic input (2 channels).

Data Saving at 100ms

Allows data saving for 8 channels at 100ms (maximum speed). Data can be saved in either binary or ASCII (can be imported to Excel*) format. Binary data can be converted to CSV data using the software supplied with the unit. *Excel is a registered trademark of Microsoft Corporation.

Large Amounts of Data Collection by External Medium

In addition to the internal memory (16MB), the unit can use an external storage medium such as a compact flash memory card and SD card. (Max. 512MB) The data can also be copied to a USB memory, making data transfer easy after measurement. *Only compact flash memory cards, SD cards and USB memories that have been verified by YOKOGAWA can be used.

Rugged Design with Maintenance and Field Site Taken Into Account

Compact Size

External dimensions:
155(W)3155(H)3355 (D) mm
Weight: Approx. 800g

Space Saving

The unit can be used in a limited space since wiring is only required on the sides of the unit.

Introduction of TFT LCD with Wide Viewing Angle

Use of a TFT LCD with wide viewing angle reduces eye strain during use. Various display contents (waveform, digital, bar graph, waveform + digital) can be switched from one to another easily.

Displays data for up to 8 channels in one screen. Up to four groups (32 channels) can be displayed by switching from one group to another.

Protection on LCD

Improved Impact-Resistance

Resistance to impact can be improved by use of rubber boot (standard accessory). The rubber boot is detachable.

Shown with the rubber boot attached

Entry of dust can be prevented by using the side cover.

Operating Temperature: 0 to 50°C

The unit can be operated in hot field sites. The allowed operating humidity range is 5 to 85% RH.

Long Continuous Operation (8 Hours) by Rechargeable Battery

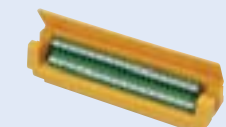
Use of a lithium ion battery allows continuous measurement for up to 8 hours.* The battery can be charged during measurement. The battery can also be used as backup power in case of power failure.



*When operated under YOKOGAWA's recommended conditions

Detachable Terminal Block

The terminal block can be detached in one single operation making wiring work easy.



Terminal block (for 16 channels)

Simple Operation

Measurement (free running, logging) review (to check measured data), file management and setting can be performed using direct keys. Operations can be performed with one hand. Furthermore, guidance for setting items is displayed on the screen to reduce inconvenience of referring to the instruction manual.

Built-in terminal screwdriver



Built-in rechargeable battery

External inputs /outputs
External storage medium
RS-232
RS-485
LAN
USB

Main Functions

Computing Function

Supports inter-channel calculation, scaling, statistical operation (maximum value, minimum value, average value, root-mean-square value, peak value).

Alarm Function

Alarm can be output for up to 4 channels, and the alarm conditions can be set for each channel. Alarm status can be checked from a distance via E-mail delivery.

Trigger Function

Supports pre-trigger and trigger delay. Pre-trigger starts data collection before a trigger is caused, and trigger delay starts data collection after a trigger is caused. (Settable number of triggers is 0 to 600 for both.) Single mode (only once) or continuous mode (each time a trigger is caused) can be selected.

Auto-Set & auto-run Function

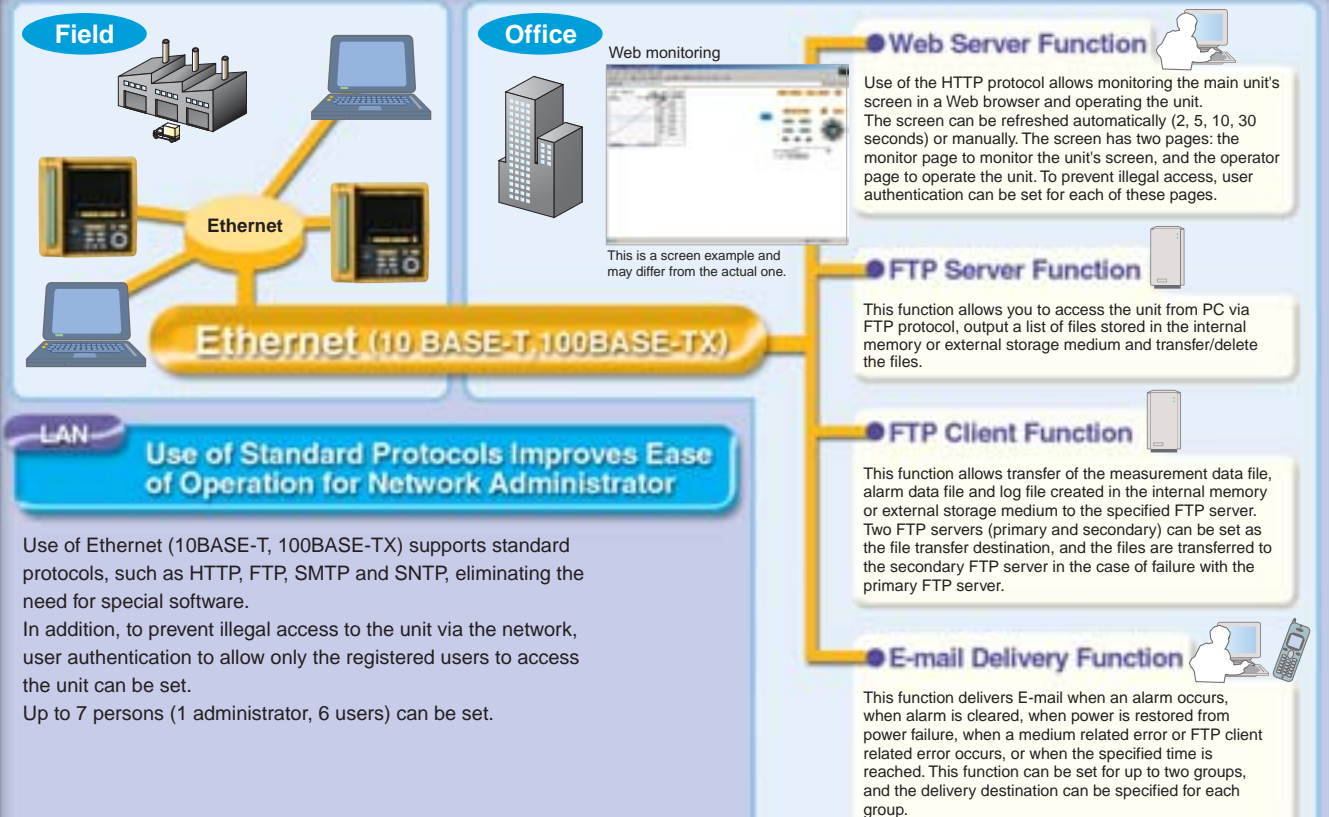
Auto-Set & auto-run Function can be performed by simply installing an external storage medium (compact flash memory card, SD card, USB memory). If an automatic measurement setting file is stored in the external storage medium, the data of the file can be read automatically to start measurement.

Standard Software

Displays the collected data in waveform. It also lets you create a setting file and convert binary data to CSV data so that the data can be processed using Excel*.

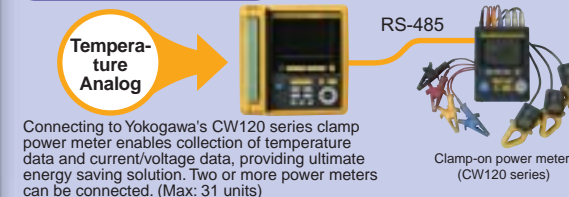
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Improved Communication Functions to Support Data Collection

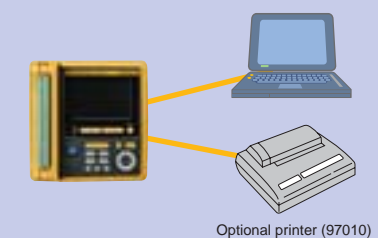


RS-485
• Built-in ModBus protocol
For serial communication (RS-232, RS-485), ModBus RTU and ModBus ASCII protocols are provided as standard features in addition to the dedicated protocol. They allow the unit to be connected to another device to collect data during temperature/voltage measurement. Dedicated 32 communication channels are provided.

Connection example



USB / RS-232
Allows one-to-one connection with PC. This function allows you to collect memory data and change settings made to the unit. RS-232-compatible printer (97010) is available to print data to paper.



Datum-Y Specification

Item	Details			
Shape of input terminal	Push-in type terminal			
Numbers of input	8ch or 16ch (Channel-to-Channel isolation, terminal "b" is shared by resistance temperature detector inputs)			
Measurement interval	100 ms (for 8-channel type only), 200 ms, 500 ms, 1 s, 2 s, 5 s, 10 s, 20 s, 30 s, 1 min, 2 min, 5 min, 10 min, 20 min, 30 min, 1 h			
Resolution of A/D converter	16 bits			
Average function	Moving average processing and can be set for each channel (1, 2, 5, 10, and 20 times)			
Each mode	Free running, Logging, Review, Logging + Review, File processing, setting			
Measurement screen display	Waveform, Digital, Bar graph, Waveform + Digital, Alarm summary, Log			
Input item	Item	Range	Accuracy	Max. Resolution
	DCV	100 mV, 500 mV, 1 V, 5 V, 10 V, 30 V, 1-5 V f.s.	±0.1% of f.s.	10μV (for 100 mV range)
	TC (without reference junction guarantee accuracy)	K, E, J, T, L, U, N W, R, S, B	±0.05% of f.s. ±1°C ±0.05% of f.s. ±2°C	0.1°C 1°C
	RTD (3 wire)	Pt 100/JPt 100	±0.05% of f.s. ±0.5°C	0.1°C
	Reference junction guarantee accuracy	±1°C		
	Maximum input voltage	DC30 V		
	Logic (DI) (2ch)	Voltage input	OFF: Less than 0.9 V, ON: Over 2.1 V	
		Contact input	Contact ON/OFF	
	Pulse (1ch)	Instantaneous value, Integration, revolution		
	Alarm output	Number of output: 4ch, Type: Level (Hi/Lo), window (IN/OUT) / Output form: Open collector / Output hold form: Hold/Not Hold Alarm sound: ON/OFF / Output update: every measuring period / Delay time of delay alarm: For each channel, select from 1 s to 1 h		
Trigger function	Setting: Pre trigger, Trigger delay Condition: Non, External, Level (Leading edge/Falling edge), Window (IN/OUT), Logic (Hi), Alarm, Time, Timer ((timer can only be used to stop logging)) Mode: One time, Repeat Timing Start, Stop, Start/Stop (Can be set condition separately)			
Computing function	Differential computation	Between any two channels		
	Linear scaling	Possible calculation range: DCV, TC, RTD, Pulse / Scaling possible range: -30000 to 30000 Decimal point position: Selectable / Unit: Possible for optional setting (Maximum 6 characters) / each item (e.g. length, area)		
	Statistical calculation	Displays value from logging start to until now. Calculation item: Max. value, Min. value, AVE value, Peak value, RMS value		
Communication function	LAN	Media: Ethernet (10BASE-T/100BASE-TX), Protocol: TCP/IP, FTP, HTTP, SMTP, SNTP Function: Web server function, FTP client function, FTP server function, Real time monitoring function, E-mail delivery function, Time adjustment function		
		USB1.1 (1 port), RS-232, RS-485 (Protocol: Dedicated protocol, ModBus RTU, ModBus ASCII)		
Data saving	Data saving media: Internal memory (16 MB), CF card, SD card, USB memory (USB memory copies function only) / Data saving method: Manual or Logging data Stored data: Instantaneous value (Measured value/Calculated value) / Data format: Binary or ASCII Other possible data saving: Image data (BMP form), Setting data (CSV form), Alarm data (CSV form), Log data (CSV form)			
Additional function	Auto setup & auto run by external memory, Auto battery change when instantaneous power failure occurred, Key lock, key login, Clock function			
Indicator	3.5-inch TFT color LCD (320×240 pixels)			
Power supply	AC100 to 240 V±10% (50/60 Hz), Lithium ion battery (Approx. 8 hours, when operated under the YOKOGAWA-recommended conditions)			
Operation Temp. & RH range	0 to 50°C, 5 to 85% RH (no condensation)			
Outside dimension & Weight	Approx. 155 (W)×155 (H)×55 (D), Approx. 800 g (Without battery and rubber boot)			
Supplied Standard	Safety: EN61010-1, Emission: EN61326 class A, EN55011 class A Group1, EN61000-3-2, EN61000-3-3, Immunity: EN61326 Annex A			
Accessories	Terminal block unit (8ch or 16ch), AC adapter, Quick manual, CD-ROM (Standard software, Instruction manual, Communication function manual, Quick manual), rubber boot, Screw driver (for terminal block)			

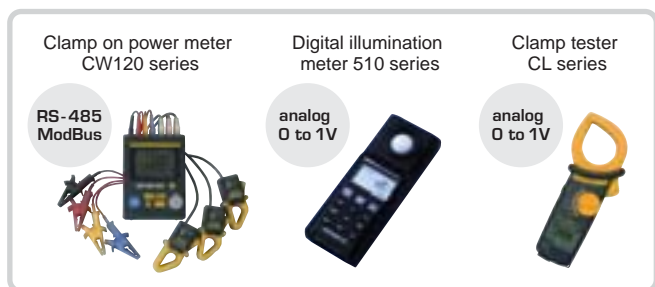
Optional accessories and Spares

	Name	Model No.	Description
Optional accessories	Type-K TC	90060	5 meter × 4 sets
	Carrying case	93037	To store the main unit and accessories
	Lithium ion battery	94009	2,400 mAh, 7.4 V
	Digital I/O cable	91029	For pulse/logic inputs and alarm outputs, 3 m
	Communication cable	91011	RS-232 communication cable for PC (9 pin)
	Printer cable	91010	RS-232 cable for printer
	Printer	97010	Includes 1 roll thermal paper and 1 battery pack
	Printer thermal paper	97080	10 rolls/set
	AC adapter for printer	94006	Power supply 200-240 V
	AC adapter for printer	94007	Power supply 100-120 V
Spares	Terminal block unit (16ch)	95050	8ch type
	Terminal block unit (8ch)	95051	16ch type
	Rubber boot	93036	For protecting impact
	AC adapter	94010	Power cord
	(Suffix code)	-D	For UL/CSA Standard
		-F	For VDE Standard
		-H	For GB Standard
		-R	For SAA Standard
		-S	For BS Standard

Model number and suffix code

Model	Suffix code	Specification
XL100	-1	With 8ch terminal block unit
	-2	With 16ch terminal block unit
	-D	Power cord (UL/CSA Standard)
	-F	Power cord (VDE Standard)
	-H	Power cord (GB Standard)
	-R	Power cord (SAA Standard)
	-S	Power cord (BS Standard)

Related products (Connectable to Datum-Y)



YOKOGAWA
Yokogawa Meters & Instruments Corporation

World Wide Web site at
<http://www.yokogawa.com/MCC>

NOTICE

- Before using the product, read the instruction manual carefully to ensure proper and safe operation.

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