

WEB DATA LOGGER **DL8 Series**

Web-Enabled Remote Terminal Unit for
Monitoring, Event Reporting and Data Logging

WEB DATA LOGGER DL8 SERIES



**ACTUAL
SIZE**

● DL8-D (above)



Web-Enabled Remote Terminal Unit for
Monitoring, Event Reporting and Data Logging

DL8 Series Web Data Logger



GENERAL INTRODUCTIONS

Remote Monitoring System With High Cost Performance Accessible from Your Smart Phone Anywhere through Internet



Pre-installed user-friendly browser views for smart phones

'Data,' 'Trend' and 'Event Log' views are ready for monitoring purpose. Each one is basic but useful, designed for ease of browsing on smart phones and tablets. No additional application program is needed, just have your mobile terminal with internet browser.

'User Defined View' feature is added with the DL8-D, which enables users to add their original data displays and graphics using HTML and JavaScript.

Browse, Report and Log

Four types of DL8 are available: Type A for 'Browsing' function with an internet browser; Type B added with 'Reporting' function by e-mails; Type C added with 'Logging' function with an SD card memory, and Type D with 'I/O Mapping' over Modbus/TCP network.

Flexible I/O signal types and scalable points

The DL8 is composed of an RTU module plus dedicated I/O modules for **analog I/O, status (discrete) I/O and pulse count inputs** which can be used in free combinations to meet exact users' needs of I/O types and number of points.

The minimum configuration consists of two analog inputs or four discrete inputs, while the maximum consists of 32 analog inputs 32 analog outputs, plus 64 discrete inputs, 64 discrete outputs and 32 pulse count inputs.

Enjoy modern communication infrastructure

Various network protocols are usable: **TCP/IP, SMTP client, SNTP client, HTTP server, FTP client and server, Modbus/TCP master and slave**. The latest communication infrastructure such as optical, ADSL, CATV broadbands, high-speed mobile communications and Wi-Fi networks.

- Web browsed views are images that are subject to change without notice.
- M-System does not provide smart phones and/or telecommunication services.
- M-System does not provide cloud server services.



TREND

EVENT LOG

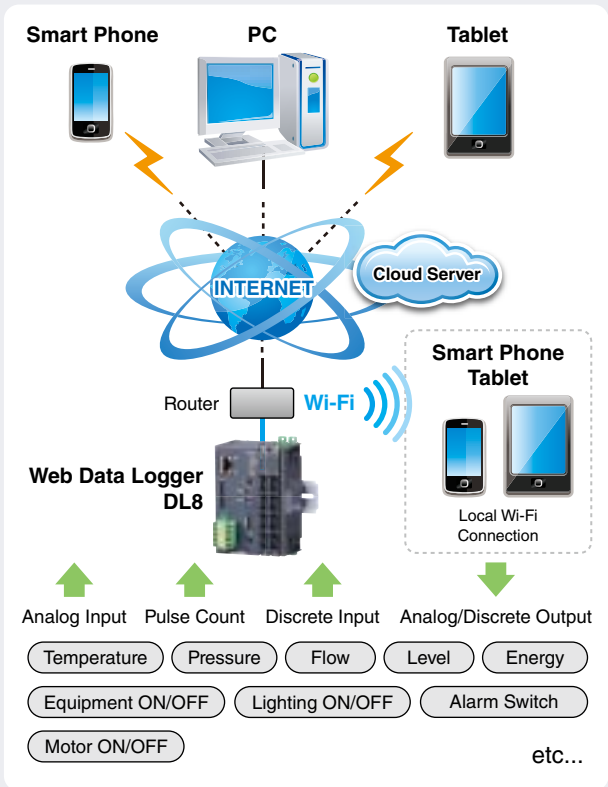
DATA

USER DEFINED VIEW*1

DATA LOGGING

E-MAIL

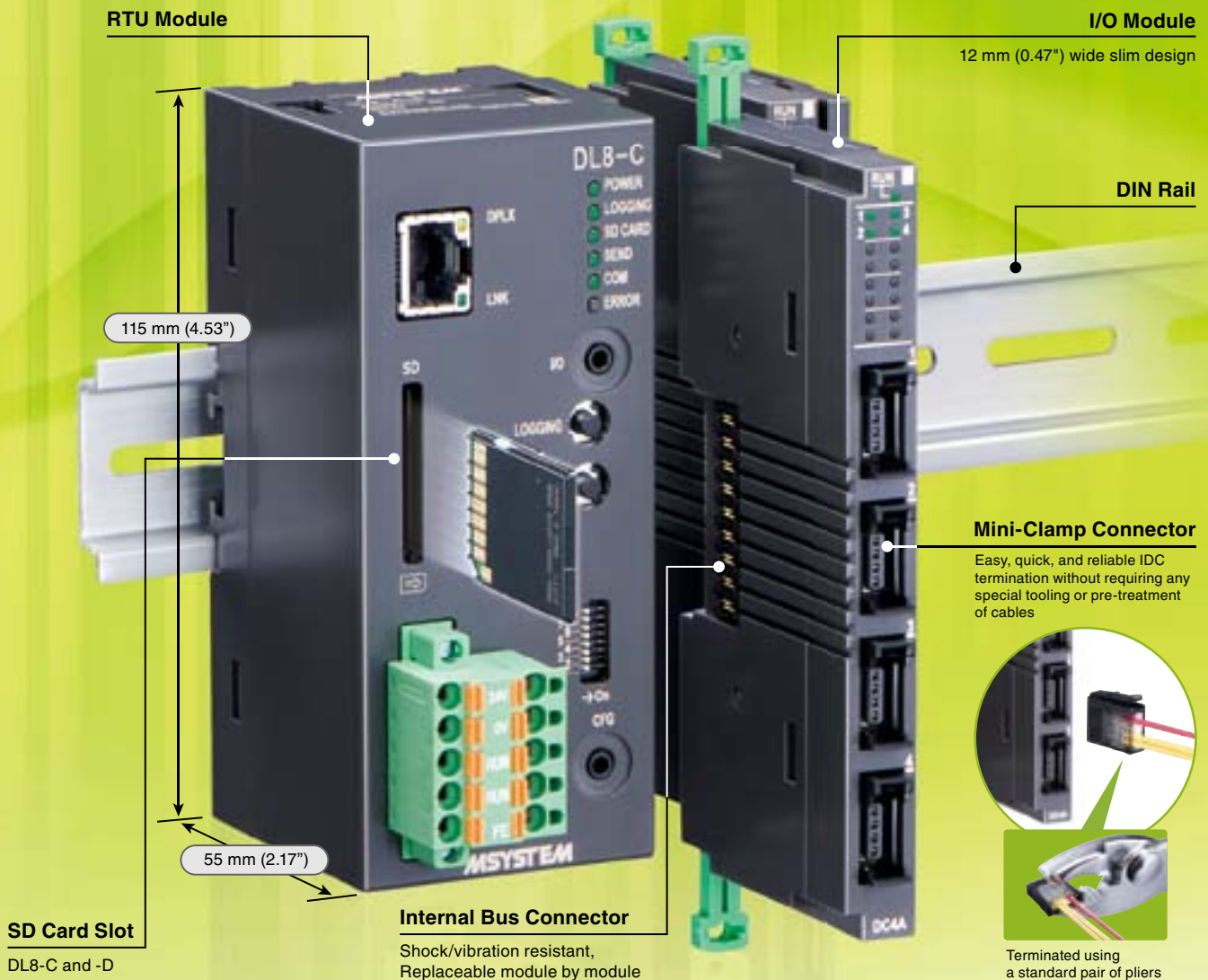
*1. User Defined View is an optional feature available with the DL8-D.



The DL8 may be used in monitoring applications which you thought were unable to meet your cost requirements.

- Construction machine
 - Convenience store
 - Elevated water tank
 - Reservoir pond
 - Large equipment
 - Greenhouse
 - Electric furnace
 - Winery/Brewery
 - Building
-
- Construction Machine Convenience Store Greenhouse
- Large Equipment Winery/Brewery Building

Selectable Features at Minimum Cost



RTU MODULE

'Browsing,' 'Reporting,' 'Logging,' 'I/O Marshalling' and 'Advanced View' functions can be combined to suit your applications at the minimum cost.



I/O MODULE

Economical slim I/O modules are selectable by signal types and number of points up to 16 modules. External Modbus/TCP slave modules can be also added.



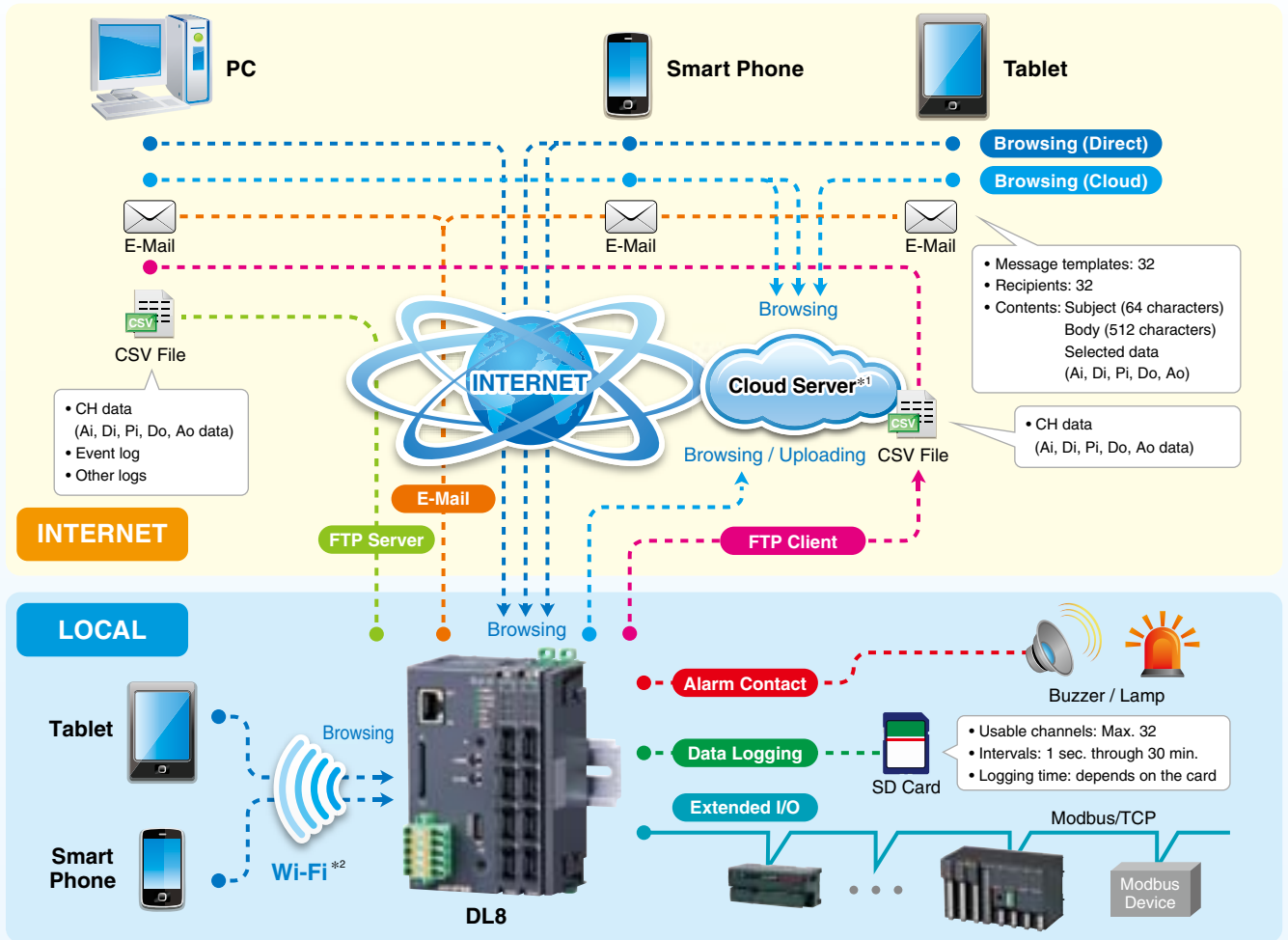
Type	Featured Functions (See right page)				Model
A	Browse	—	—	—	DL8-A
B	Browse	Report	—	—	DL8-B
C	Browse	Report	Log	—	DL8-C
D	Browse	Report	Log	I/O Marshalling Advanced View	DL8-D NEW

Signal Type	Max. Capacity per module*1	I/O Module Type	Model
Analog Input	32 points	DC current input (2 points, isolated) DC current input (4 points, non-isolated) DC current input (4 points, sensor exc., non-isolated) DC voltage input (2 points, isolated) DC voltage input (4 points, non-isolated) Thermocouple input (2 points, isolated) RTD input (4 points, non-isolated)	R8-SS2 R8-SS4N R8-SS4NJ R8-SV2 R8-SV4N R8-TS2 R8-RS4N
Discrete Input	64 points	Contact input (4 points, NPN) Contact input (16 points, NPN)	R8-DA4A R8-DAM16A
Pulse Input	32 points	Totalized pulse input (4 points, NPN/PNP/voltage pulse)	R8-PA4
Analog Output	32 points	DC voltage output (4 points, non-isolated) DC current output (2 points, isolated, 24 mm wide)	R8-YV4N R8-YS2
Discrete Output	64 points	Transistor output (4 points, NPN, shortcircuit protection) Transistor output (4 points, NPN, shortcircuit protection) Photo MOSFET relay output (4 points) Transistor output (16 points, NPN, shortcircuit protection)	R8-DC4A R8-DC4A2 R8-DC4C R8-DCM16A

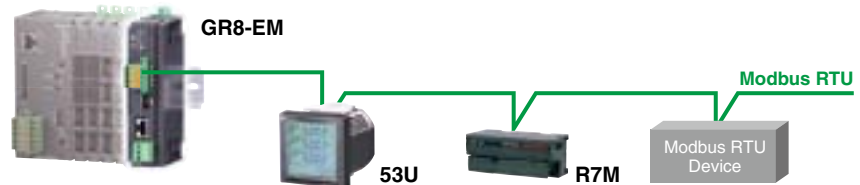
*1. Including extended remote I/Os



F U N C T I O N S



GR8-EM ETHERNET ADAPTOR for Modbus RTU extension



Type				Function	Descriptions
A	B	C	D		
Y	Y	Y	Y	Browse	Browsing (Direct) I/O signal status in the DL8 web server can be directly monitored with an internet browser.
					Browsing (Cloud) The DL8, operating as FTP client, uploads web use files to a cloud server. Multiple users can access it at once without extra load at the DL8.
					Extended I/O I/Os located within 500-meter distance can be collected and accessed via single DL8 module.
N	Y	Y	Y	Report	E-Mail Events can be reported by e-mails. Regular reporting and test mailing are also possible.
					Alarm Contact Event can trigger an alarm contact at a discrete output module.
					FTP Client Specific data can be converted into user defined CSV files and uploaded to an FTP server.
N	N	Y	Y	Log	Data Logging Data is sampled and stored in CSV format in an SD card.
					FTP Server The host supervising system (client PC) can upload CSV data files from the DL8 operating as FTP server.
N	N	N	Y	I/O Marshalling Advanced View	I/O Mapping Input at one I/O module can be output at another connected over Modbus/TCP network, by simply specifying combination of Di/Do and Ai/Ao.
					User Defined View User's own browser views can be added using JavaScript and the DL8 original HTML tags.

Y = Function available. N = Not available.

*1. M-System does not provide cloud server services.

*2. A Wi-Fi access point is required to use Wi-Fi connection.

DL8 FEATURES

HTTP SERVER

DL8 Type **A B C D**

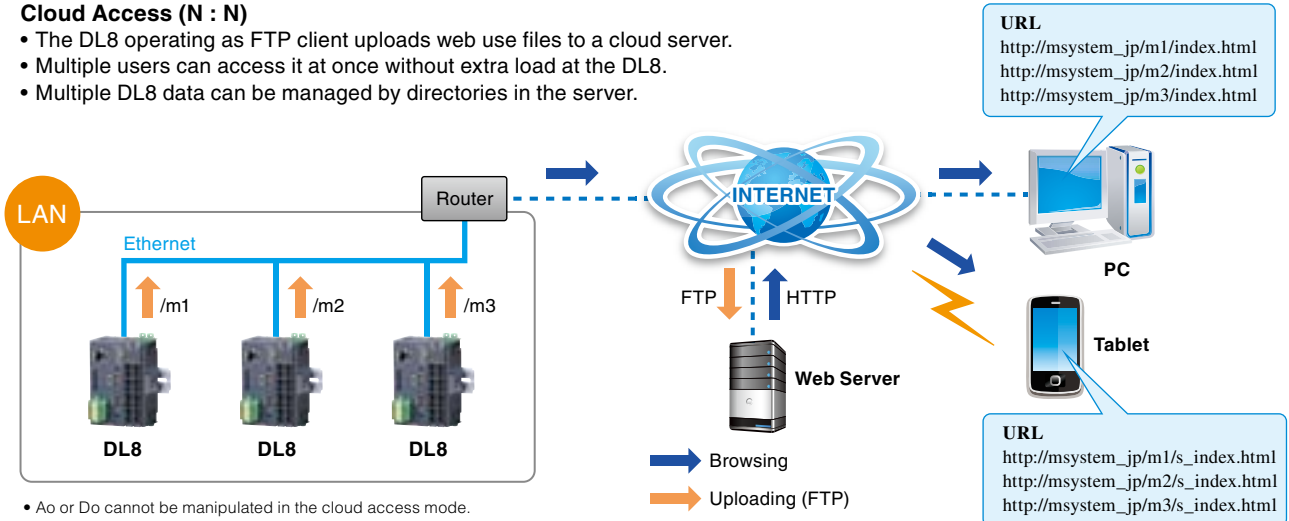
Direct or Cloud Access with a Web Browser

Direct Access (1 : 1)

- I/O signal status in the DL8 web server can be directly monitored and manipulated with an internet browser.

Cloud Access (N : N)

- The DL8 operating as FTP client uploads web use files to a cloud server.
- Multiple users can access it at once without extra load at the DL8.
- Multiple DL8 data can be managed by directories in the server.



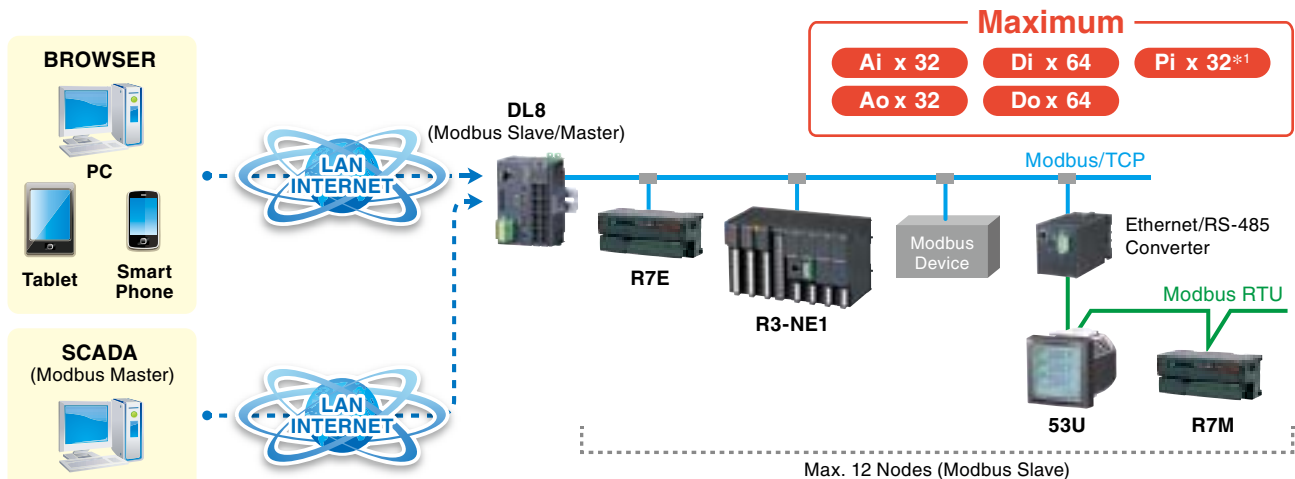
• Ao or Do cannot be manipulated in the cloud access mode.

MODBUS TCP MASTER/SLAVE

DL8 Type **A B C D**

Extended Modbus I/O

- I/Os located within 500-meter distance can be collected and accessed via single DL8 module.
- M-System's remote I/O model R7E, R6-NE1/2, R3-NE1 and other general Modbus/TCP slaves can be connected.
- Local I/O data collected at the DL8 can be polled by a SCADA system via internet or intranet (LAN).



*1. Pi is for pulse accumulation and 32-bit signed integer data.

GENERAL I/O SETTING	
CH assignment	Built-in module : Module address + Ch. No. Modbus device : Node + Register type + Register address
CH designation	User defined channel ID (32 characters) + tag name / comment (64 characters)
AI : ANALOG INPUT (or 16-bit data)	
Data type	% : [% x 100] format (-2000 to 12000) for voltage / current input Int : Signed 16-bit integer format (-32768 to 32767) for temperature input
Filter	None / Moving Average / Delay Buffer
Engineering unit	User defined (16 characters)

DI : DISCRETE INPUT	
Data type	Status : ON/OFF Counter : ON/OFF Time duration or number of status change is counted
Reset input	Di CH
PI : PULSE INPUT (or 32-bit data)	
Data type	Accumulation : Totalizing count deviation from reset status Engineering unit value : Direct reading of 32-bit signed integer (used for energy data) Floating point : Single precision floating type (display range ±10 000 000 000.000)
Engineering unit	User defined (16 characters)
Reset input	Di CH

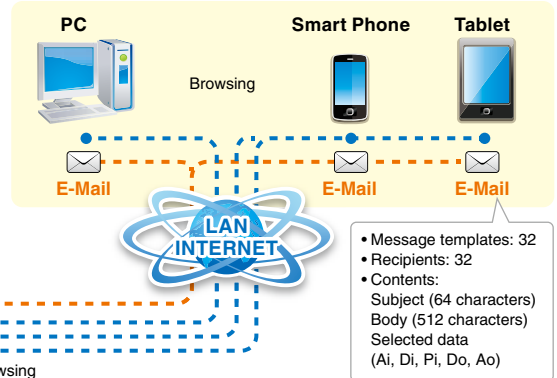


SMTP CLIENT

DL8 Type **B C D**

E-Mail & Alarm Contact Output

- Events can be reported by text message.
- Selected channel data can be attached.
- Regular reporting and test mailing are also possible.
- SMTP over SSL encryption
- Events can trigger an alarm contact at a discrete output module.
- Specified Do can be turned on after a mail delivery

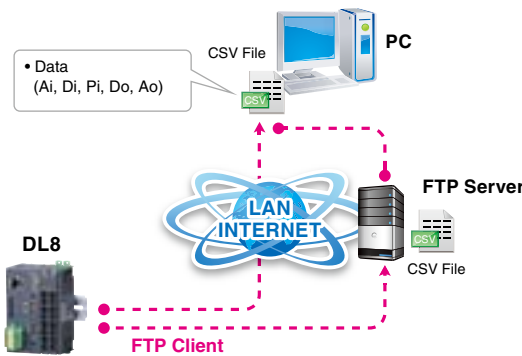


FTP CLIENT

DL8 Type **B C D**

CSV File Upload

- Specified channel data can be converted into user defined CSV files and uploaded to an FTP server.
- Data transfer in the preset time intervals



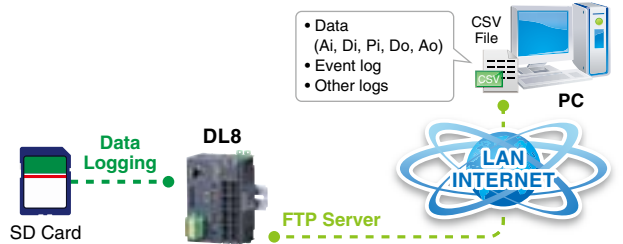
Data	32 channels selected among Ai, Di, Di count, Pi, Do, Ao
Storing interval & FTP transfer cycle	1 / 2 sec : Transferred every 1 min / 10 min / 1 hour (selectable) 5 / 10 / 30 sec : Transferred every 10 min / 1 hour (selectable) 1 / 2 / 5 / 10 / 30 min : Transferred every day Dateline can be specified.

FTP SERVER

DL8 Type **C D**

Data Logging in SD Card

- Data is sampled and stored in CSV format in an SD card.
- The host supervising system (PC) can upload CSV data files from the DL8 operating as FTP server.



Character set	Shift JIS
Data	32 channels selected among Ai, Di, Di count, Pi, Do, Ao
Storing interval (synchronized with RTC)	1 / 2 / 5 / 10 / 20 / 30 sec 1 / 2 / 5 / 10 / 15*2 / 20 / 30 min (at 0 second) 0 to 23 hours (multiple selection with time delay) Dateline can be specified at every hour Effective days of the week selectable
Analog logging mode	Momentary value, average, peak or valley
Automatic file deletion	Firmware V.1.4.x or later
Logging time duration	Approx. 180 days for 32 points with 1-sec. intervals (counting only the logging data files)
FTP client	Explorer or Browser (Internet Explorer 10, 11, Firefox 13.0.1 or later)

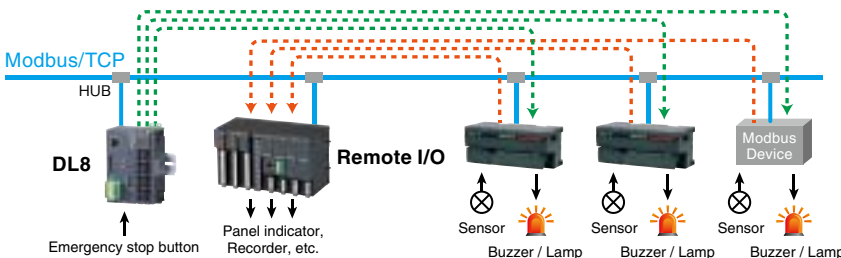
*2. V.1.5.0 or later

MODBUS TCP MASTER

DL8 Type **A B C D**

I/O Mapping

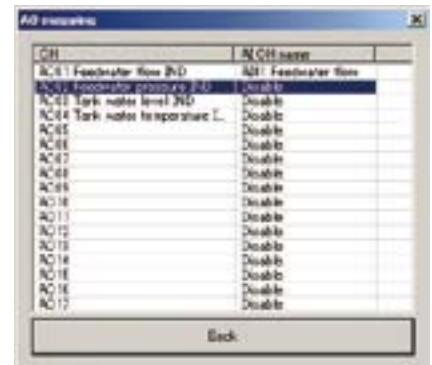
- Peer-to-peer connection between Modbus/TCP slaves
- Di/Do and Ai/Ao signal marshaling is easily set up on the DL8
- Remote multiplex transmission on IP network



• Do/Ao assigned for I/O mapping cannot be controlled via Modbus/TCP or web browser view.

EASY SETUP

Simply choose input and output on the list.



PRE-INSTALLED VIEWS

Smart Phone / Tablet / Laptop PC

Web Browsed Views Designed for Mobiles



Display Examples with iPhone or Android™

Trend view optimized for the aspect ratio of a smart phone screen

Display Examples with iPad

Event log view designed for ease of reading on the vertical screen of a tablet

PC SCREEN



SMART PHONE SCREEN



Large sized buttons are placed for ease of operating on the small sized screen of a smart phone.



Short trend and digital data displays are available to monitor analog, discrete and totalized pulse signals. Event log is also available to review alarm events. All the views can be quickly ready for use by simple setting.

TREND

Page selector

Equipment name

Page name

Discrete signal

Totalized pulse count

Analog signal

User designed logo image

View selector

Time stamp

Channel name

Channel comment

Engineering unit value

Unit

TREND VIEW SPECIFICATIONS	
Sampling rate	1 s / 5 s / 10 s / 30 s / 1 min / 5 min / 10 min / 30 min / 1 h / 1 day
Number of pages	8 pages
Number of chs	4 chs per page
Pen color	User defined (RGB)
Graph range	User defined (engineering unit value)
Number of samples	Max. 7200 points per ch
Scrollable charts	1 to 10 (720 samples @ chart span)

EVENT LOG

Time stamp

Channel No.

Channel name

Channel comment

Event / Status

Zone/status color

● **EVENT LOG SPECIFICATIONS**

Analog signal	Alarm triggered when measured value passes across the setpoint.
Discrete signal	Alarm triggered when status changes.
Totalized count	Alarm triggered when pulse count exceeds the setpoint. (Counter can be reset.)
Pulse signal	Alarm triggered when measured value passes across the setpoint.

E-mails can be sent when an event occurs. Specific recipients and texts can be defined for each event condition.

DATA

■ **ANALOG INPUT DATA DISPLAY**

Channel No.

Channel name

Channel comment

Engineering unit value

Unit

% value

Status

Zone color

■ **DISCRETE INPUT DATA DISPLAY**

Count

Unit

Reset button

Status

Status color

■ **PULSE INPUT DATA DISPLAY**

Engineering unit value

Unit

Reset button

Status

Zone color

■ **DISCRETE OUTPUT DATA DISPLAY**

Status

Status color

ON button

OFF button

■ **ANALOG OUTPUT DATA DISPLAY**

Engineering unit value

Output control

USER DEFINED VIEWS

Customized Web Browser Views

DL8-D OPTION

DATA VIEW BY HTML

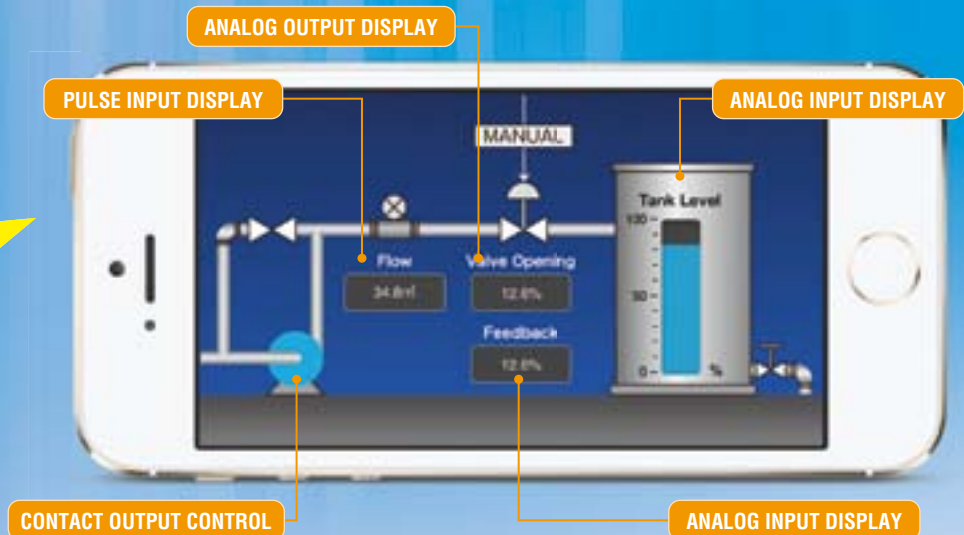
Example using the DL8 original tags



● Composite Picture

GRAPHIC VIEW

Example using JavaScript



● Composite Picture

USING THE DL8 ORIGINAL TAGS

The DL8 original tags in an HTML file are automatically converted into corresponding text/data string by the DL8. Users who do not have technical knowledge of programming scripts can easily create an original data view.



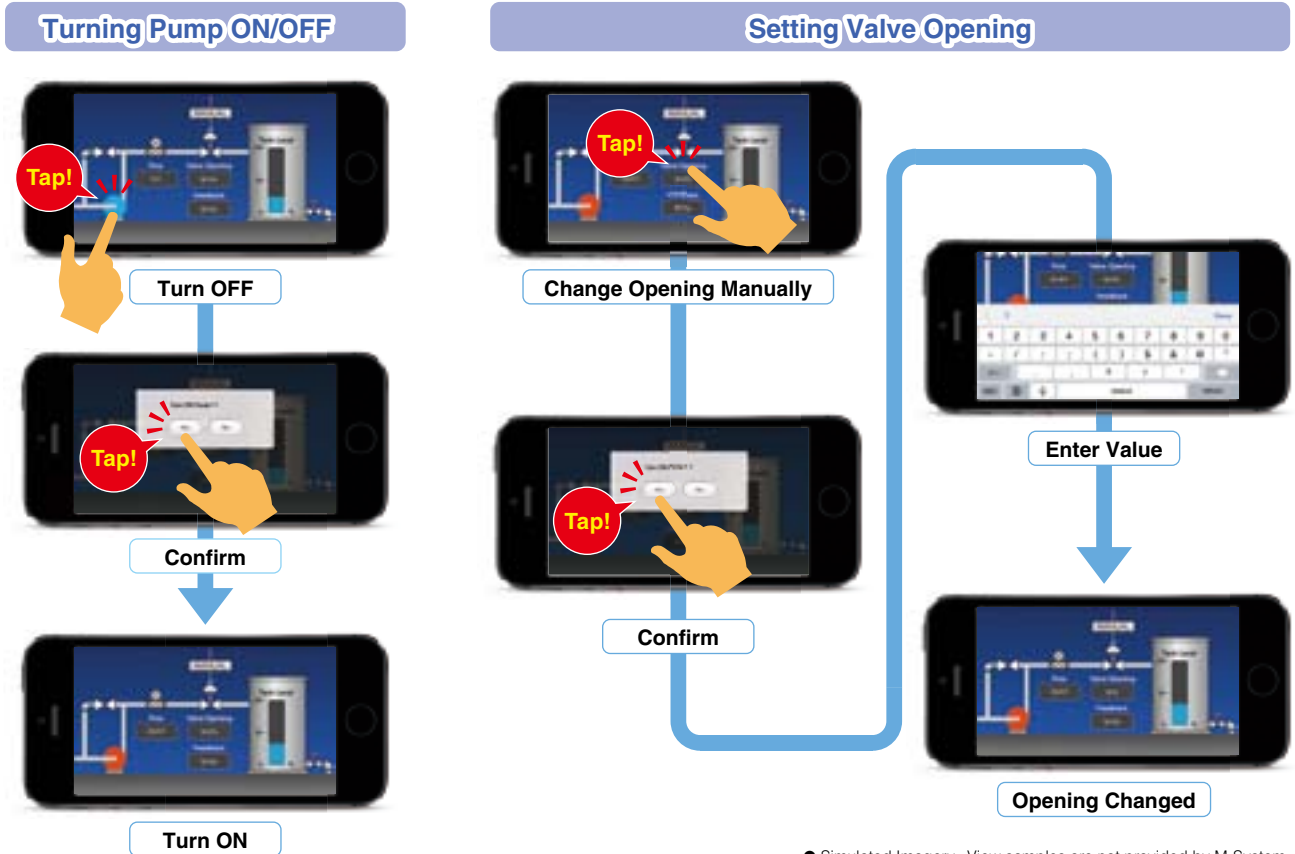
The DL8 User Defined View must be created and used under the user's sole responsibility, including its display components and functions.

ORIGINAL TAG	CONTENTS	CONVERTED TEXT/DATA STRING (example)
[NAME1]	Name 1	Web Data Logger
[NAME2]	Name 2	Web Data Logger
[NAME3]	Name 3	Web Data Logger
[TIME1]	Present Time	2012/02/29 11:00:00
[TIME2]	Not Used	----
[AI1_NAME]	Ai 1	CH name
[AI1_COMM]	Ai 1	CH comment
[AI1_DATA]	Ai 1	Engineering unit data
[AI1_DATA_P]	Ai 1	% data
[AI1_UNIT]	Ai 1	Engineering unit
[AI1_AREA]	Ai 1	Zone name
[DI1_NAME]	Di 1	CH name
[DO1_DATA]	Do 1	Status (display comment)
[AO1_NAME]	Ao 1	CH name
[AO1_COMM]	Ao 1	CH comment
[AO1_DATA]	Ao 1	Engineering unit data



Creating User's Original Views by JavaScript or HTML

Measured data strings can be output as JavaScript arrays. Users who have knowledge and skills of JavaScript language, HTML and CSS used to build a web site can freely create original trend graphs, bargraphs and graphic views. Analog input, analog output, discrete input, discrete output, trend data, event data and other variety of array files are available.



● Simulated Imagery. View samples are not provided by M-System.

JAVASCRIPT ARRAY FILES

FILE NAME	DATA	VARIABLE DEFINITION	FORMAT	
dl_header.js	Present time	var year,mon,day,hour		
	Name 1	var dl_time1="2012/07		
	Name 2	var dl_time2="17:00:00		
	Name 3	var dl_name1="name1"		
	Name 3	var dl_name2="name2"		
	Name 3	var dl_name3="name3"		
data_ai.js	Number of AI channels (Number of array elements in the following format de	var ai_chs=16;		
	AI Channel	var ai_ch = ["AI1","AI2"		
	AI CH name	var ai_name = ["AI1","AI2"		
	AI CH comment	var ai_comm = ["AI-00"		
	AI Engineering unit value	var ai_real = [-50.32,3		
	AI % value [% x 100]	var ai_per = [-20.00,15		
	AI Engineering unit	var ai_unit = ["km","kg"		
	AI Zone name	var ai_area = ["HH","H"		
	AI Zone color	var ai_color = ["#00FFFF"		
	AI Channel No.	var ai_chno = [1,2,		
data_di.js	Number of DI channels Enable/Disable DI control (Number of array elements in the following format de	var di_chs=16;		
	Enable/Disable DI control	var di_enable = 0; (0: T		
	(Number of array elements in the following format de	var di_ch = ["DI1","DI2"		
		var di_name = ["DI1","DI2"		
		var di_comm = ["DI-00"		
data_ao.js	Number of AO channels (Number of array elements in the following format descriptions equals the number of AO channels)	var ao_chs=16;		
	AO Channel	var ao_ch = ["AO1","AO2",...];		
	AO CH name	var ao_name = ["AO1","AO2",...];		
	AO CH comment	var ao_comm = ["Ao-0001","Ao-0002",...];		
	AO Engineering unit value	var ao_real = [-20.00,15.00,...];		
	AO Engineering unit	var ao_unit = ["%","kg",...];		
	AO Channel No.	var ao_chno = [1,2,...];		
	Enable/Disable AO control	var ao_enable = [1,0,...];		
	AO Web control limit (lower)	var ao_lower = [0.00,0.00,...,0.00];		
	AO Web control limit (uupper)	var ao_upper = [100.00,100.00,...,100.00];		
auth_level.js	Authorization level	var auth_level = 0;		
		(0: Unauthorized 1: Authorized for mo		
		2: Authorized for control)		
trend_page.js	Trend page name	var trend_page = ["PAGE1","PAGE2",...,"PAGE8",...];		
trend_p1.js	Page name	var trend_p1_pagename="PAGE1";		
Trend	Number of data samples	var trend_p1_samples=720;		
(page 1)	Trend speed	var trend_p1_speed = "1S";		
:	Year data string	var trend_p1_year=[2012,...,2012];		
:	Month data string	var trend_p1_mon=[1,11,...,11];		
Trend	Day data string	var trend_p1_day=[8,8,...,8];		
trend_p8.js	Month data string	var trend_p1_hour=[9,9,...,10];		
		var trend_p1_min=[10,10,...,23];		
		var trend_p1_sec=[5,6,...,30];		
		var trend_p1_min=[10,10,...,23];		
		var trend_p1_sec=[5,6,...,30];		
		var trend_p1_min=[10,10,...,23];		
		var trend_p1_sec=[5,6,...,30];		
		var trend_p1_min=[10,10,...,23];		
		var trend_p1_sec=[5,6,...,30];		
		var trend_p1_min=[10,10,...,23];		
		var trend_p1_sec=[5,6,...,30];		

ANALOG INPUT

DISCRETE INPUT

ANALOG OUTPUT

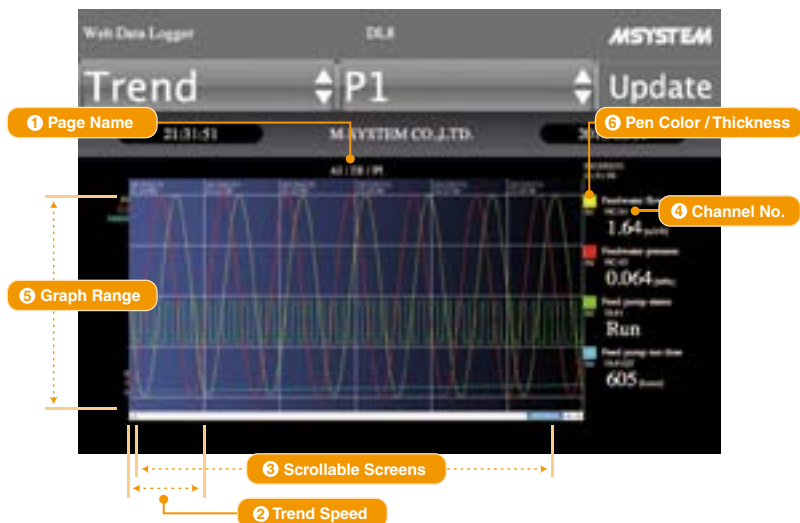
TREND DATA

DL8 SETUP / SYSTEM CONFIGURATIONS

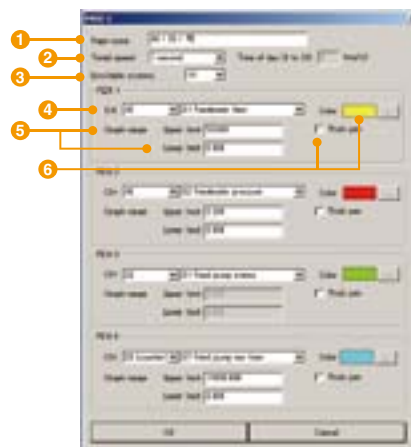
SETUP

The DLCFG PC Configurator software is available to customize the views with the user specific information and various parameters. The user-friendly program is easy to use for anyone without special knowledge about network and software. The DLCFG can be downloaded for free of charge at M-System's web site.

TREND



SETTING WINDOW



SETUP ITEMS

USER SETTING

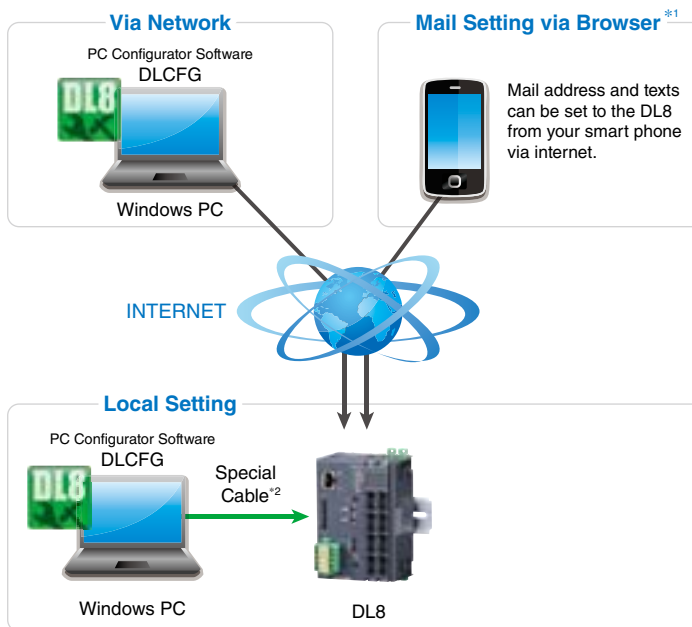
SYSTEM	Name
	Time Zone
	Start Mode
INPUT/OUTPUT	Modbus/TCP Node
	Ai
	Di
	Pi
	Do
	Ao
COMMUNICATION	Web Server
	SNTP
	Modbus/TCP Slave
	SMTP/POP3
	FTP Client
	FTP Server
E-MAIL	Address List
	Event Report
	Regular Report
	Delivery Failure Output
LOGGING	General
	Data Logging
	Channel Event Log
I/O MAPPING	Ao
	Do

MAINTENANCE SETTING

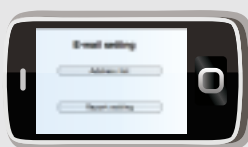
Date / Time
User Defined Imagery
MAC Address
DL8 Version
System Log
Preset Count
FTP Client Test
Test Mail
Start/Stop Logging
Disk Usage
User Defined Browser View

HOW TO SET UP

SETUP SYSTEM CONFIGURATION



*1. E-mail setting



*2. Special cable

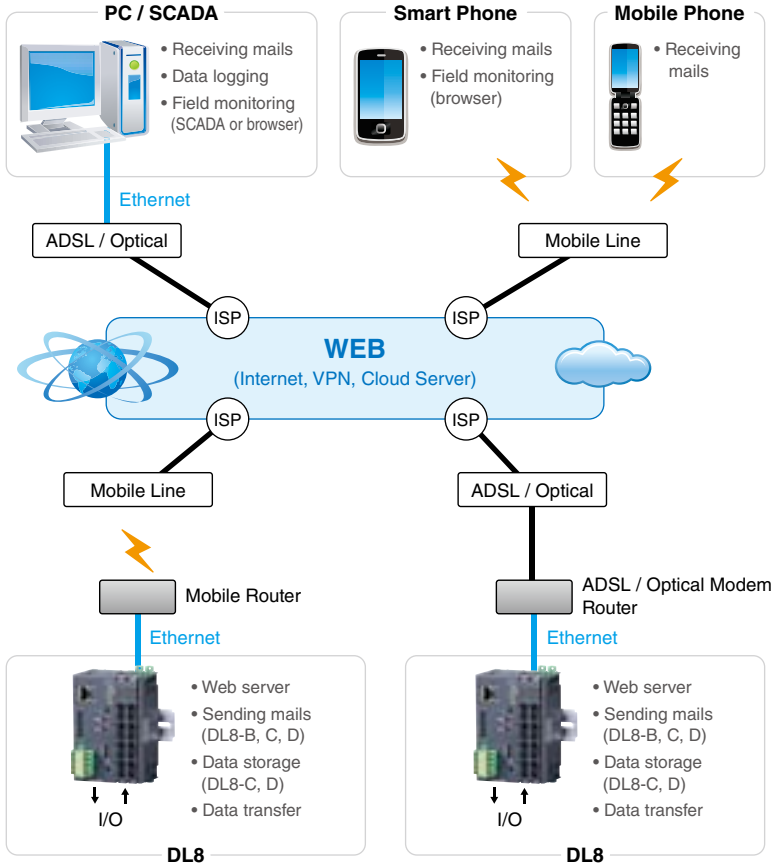


PC Configurator Cable
Model: COP-US

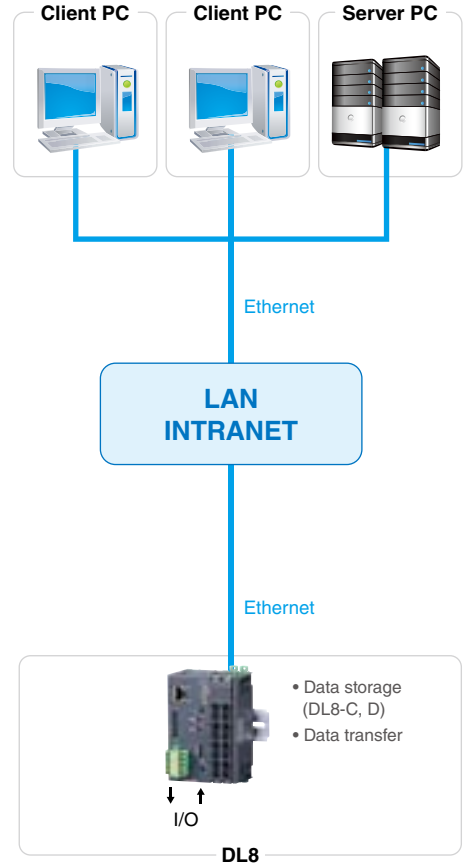


CONFIGURATIONS

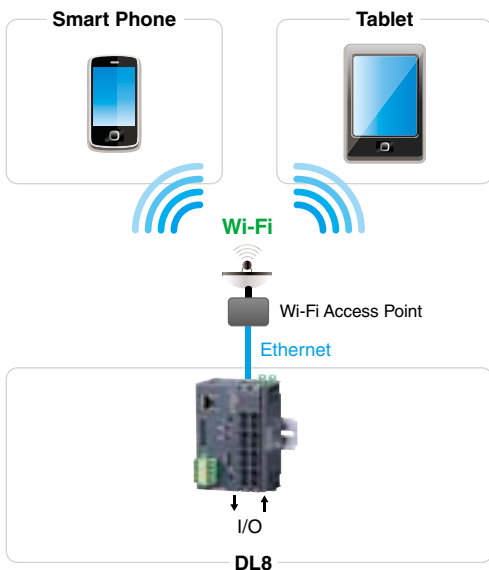
INTERNET



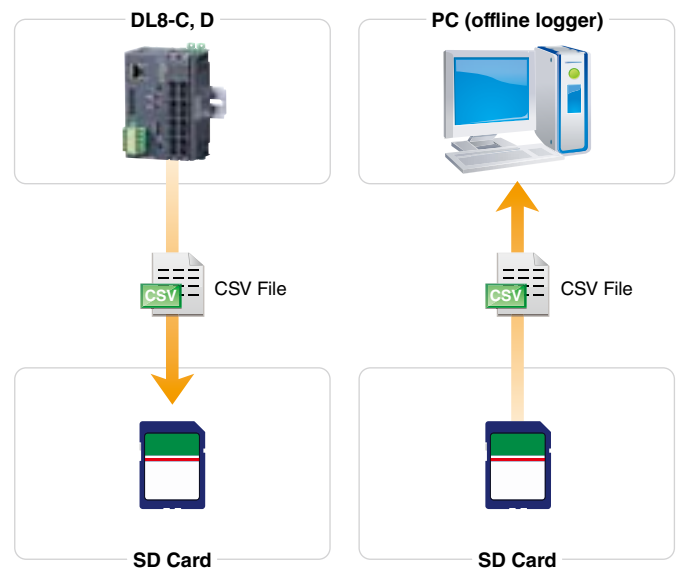
LAN



LOCAL Wi-Fi



STAND-ALONE



ISP : Internet Service Provider

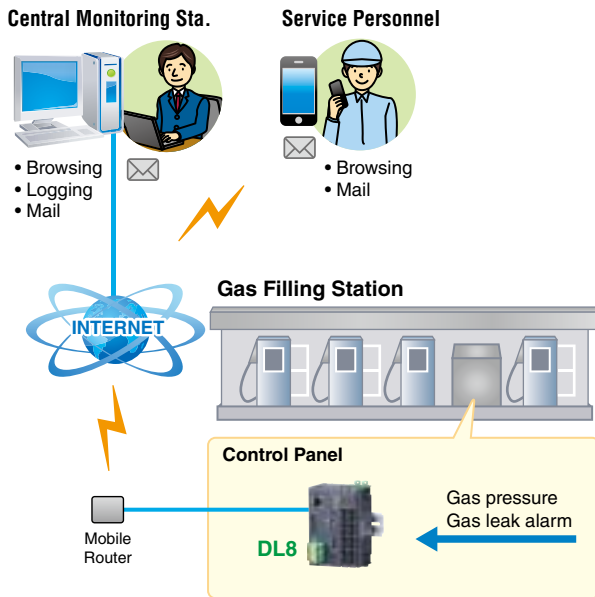
DL8 APPLICATION EXAMPLES

The DL8 web data logger is suitable for a wide variety of monitoring applications such as: construction machines, convenience stores, large equipment, elevated water tanks, wineries, breweries, electric furnaces, reservoir ponds, building, etc.

CNG Gas Filling Stations

Also applicable to: Utility / Infrastructure Monitoring

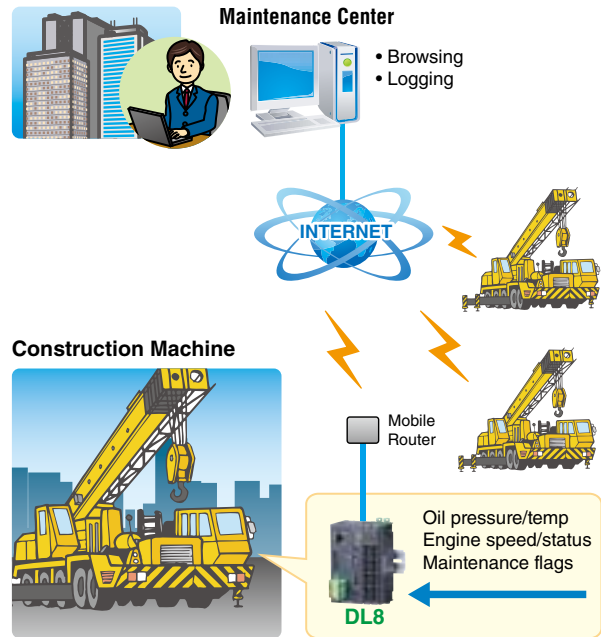
- ✓ Material level monitoring
- ✓ Optimization of refilling schedule
- ✓ Effective service personnel assignment



Construction Machines

Also applicable to: Mobile Equipment

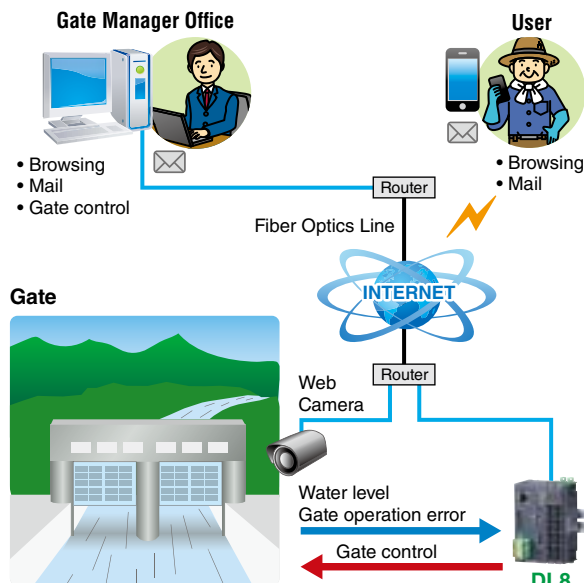
- ✓ Remote monitoring of mobile equipment
- ✓ Operation log for effective maintenance



Irrigation Canal Gate

Also applicable to: Utility / Infrastructure Monitoring

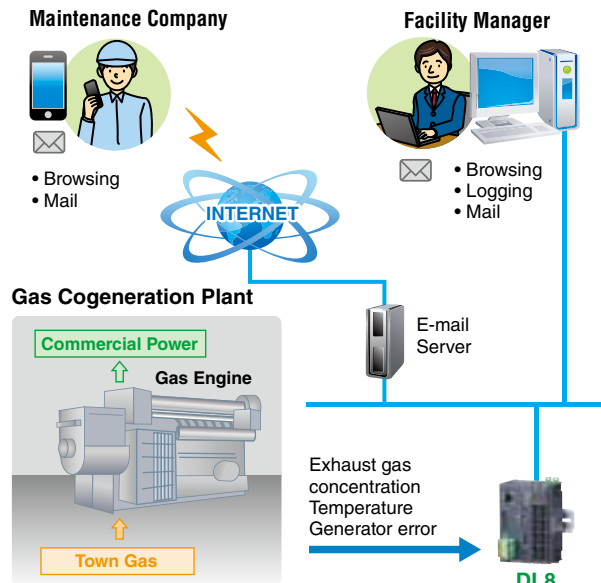
- ✓ Remote monitoring & control
- ✓ Alert mail to multiple users
- ✓ Web camera surveillance and telemetering via single fiber optics line



Gas Cogeneration Generator

Also applicable to: Green Energy Plants

- ✓ Utilizing existing in-house LAN
- ✓ Alerting facility manager and maintenance company at once in case of trouble
- ✓ Operation log for effective maintenance

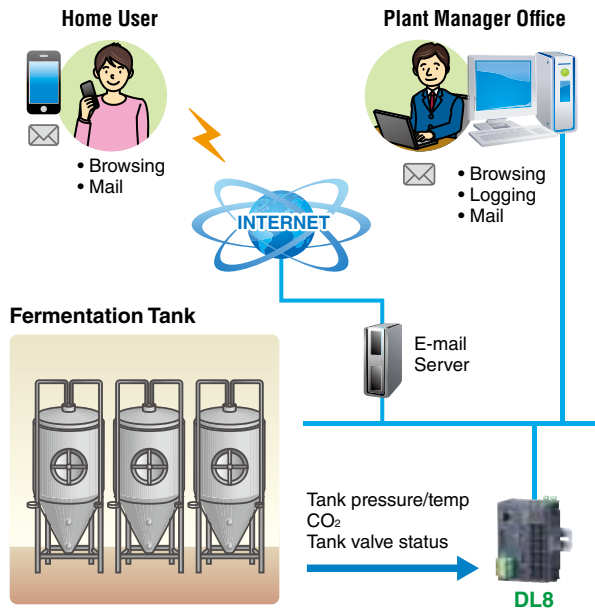




Microbrewery

Also applicable to: Small Scale Fermentation Plants

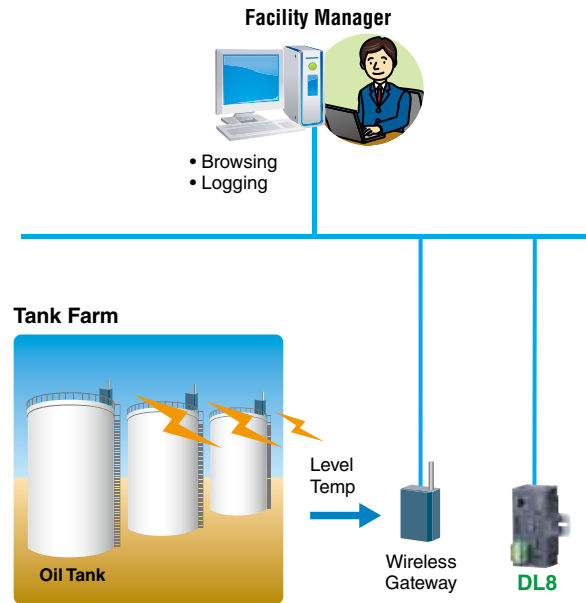
- ✓ Remote monitoring
- ✓ Utilizing existing in-house LAN and e-mail server
- ✓ Abnormality alert mail including update data



Tank Farm

Also applicable to: Utility / Infrastructure Monitoring

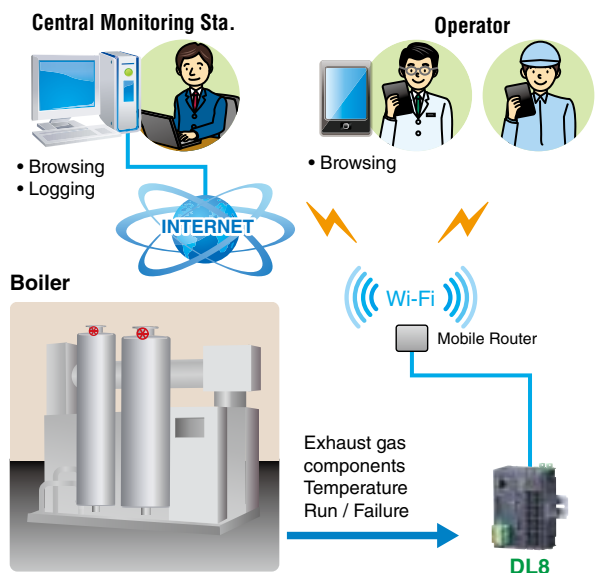
- ✓ Wireless data monitoring for HART wireless transmitters
- ✓ Monitoring of material level and temperature



Boiler Test Run Monitoring

Also applicable to: Machinery & Equipment Monitoring

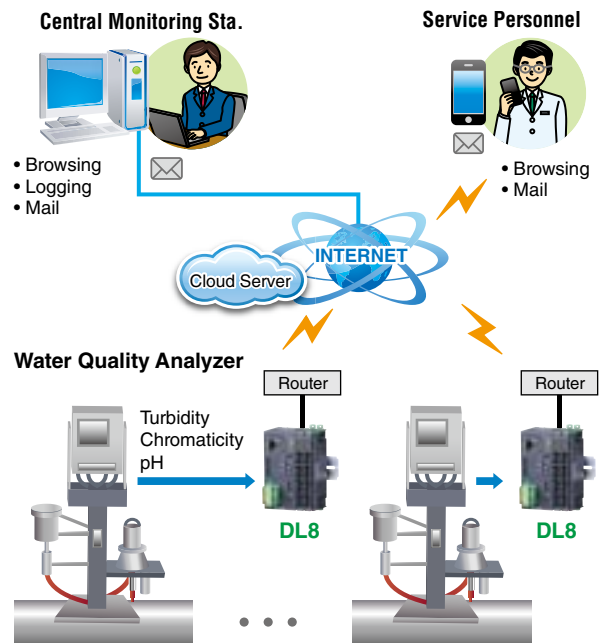
- ✓ Combination of the DL8/mobile router needs only a minimum space, ideal for temporary installation for the startup
- ✓ Supervisor and field operators can double-check the data at once



Water Quality Analyzer

Also applicable to: Utility / Infrastructure Monitoring

- ✓ Water quality monitoring
- ✓ Effective service personnel assignment



GENERAL SPECIFICATIONS

Max. number of built-in I/O modules:

16 Max. consumption current of I/O modules is limited to 1.6 A.

Isolation:

Ethernet to internal bus or internal power or power supply (exc. supply) to RUN contact output*1 to FE

Calendar clock:

Year (4 digits), month, date, day, hour, minute, second

Status indicator LED:

POWER, LOGGING, SD CARD, SEND, COM, ERROR

RUN contact output*1:

Photo MOSFET relay (no polarity); OFF at error

*1. RUN contact output is available with the firmware version 1.4.x or later for the DL8-C.

ETHERNET

Communication Standard: IEEE 802.3u

Transmission: 10BASE-T, 100BASE-TX

Baud rate:

10/100 Mbps (Auto Negotiation function)

Protocol:

TCP/IP, Modbus/TCP, HTTP, FTP, SMTP, Sntp

Transmission media:

10BASE-T (STP, Category 5)
100BASE-TX (STP, Category 5e)

Max. length of fieldbus segment:

100 meters

Ethernet indicator LED: DPLX, LNK

IP address: 192.168.0.1 (factory setting)

INSTALLATION

Power input: 24 V DC $\pm 10\%$, 12 W

Internal power: 5 V DC, 1.6 A

Excitation supply output:

24 V DC $\pm 10\%$, 7 A

Power output current consumption must be under 7 A.

Operating temperature:

-10 to +55°C (14 to 131°F)

Operating humidity:

30 to 90 %RH (non-condensing)

Atmosphere: No corrosive gas or heavy dust

Mounting: DIN rail

Weight: 190 g (0.42 lb)

PERFORMANCE

Battery:

Vanadium-lithium secondary battery (undetachable)

Calendar clock accuracy:

Monthly deviation 2 minutes at 25°C

Battery backup:

Approx. 2 months

Insulation resistance:

$\geq 100 \text{ M}\Omega$ with 500 V DC

Dielectric strength:

1500 V AC @1 minute (between isolated circuits)

STANDARDS & APPROVALS

CE conformity:

EMC Directive (2004/108/EC)
EMI EN 61000-6-4: 2007/A1: 2011
EMS EN 61000-6-2: 2005

BROWSING DEVICE

PC

- OS: Windows Vista, Windows 7 (32 bit/64 bit), Windows 8.1 (32 bit/64 bit)
- Browser: Internet Explorer 10, Internet Explorer 11, Firefox 13.0.1 or later, Chrome 26.0.1410.43m or later

Tablet, Smart Phone

- OS: iPad, iPhone (iOS5 or later), Android terminal (Android4.0 or later)
- Browser: iOS: Safari, Android: Chrome

COMMUNICATION

IP:

DHCP client is supported. Manual setting of IP address, subnet mask, default gateway and DNS server also available.

Modbus/TCP slave:

Remote supervisory control system via SCADA etc.

Modbus/TCP master:

I/O expansion with remote I/O, e.g. R3 or R7 series, is available. Measuring points in multiple locations can be handled collectively.

Web server function (Direct):

The DL8 can be a web server. 'Data,' 'Trend' and 'Event Log' views are accessible from remote locations.

Web server function (Cloud):

The DL8 can be an FTP client, and uploads web files to a cloud server. Users can browse the cloud server. Multiple users can access it at once without extra load at the unit. (only browsing; operation not available)

Analog input:

32 points

Discrete input:

64 points

Pulse input:

32 points

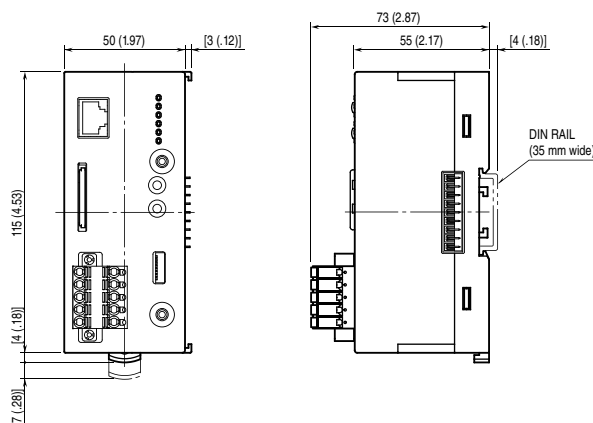
Discrete output:

64 points

Analog output:

32 points (firmware version 1.4.x or later)

EXTERNAL DIMENSIONS mm (inch)



MSYSTEM
M-SYSTEM CO., LTD.

URL www.m-system.com
E-mail info@m-system.co.jp

5-2-55, Minamitsumori, Nishinari-ku, Osaka 557-0063 JAPAN
Tel: +81(6)6659-8201 Fax: +81(6)6659-8510