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DL256 Data Logger

The Opsis DL256 Data logger system is designed for modern data acquisition applications. The data logger can handle analogue and digital input and output signals as well as serial communication with monitors and sensors, e.g. API, Monitor Labs, R&P, wind sensors and others. More than 250 input and output signals can be handled and stored.

The hardware of the DL256 is based on modules. It is therefore easy to configure the system to meet a wide range of requirements, and the system can be upgraded by adding modules.

The DL256 operates using Opsis IO256 software. It can be set up to almost any application including data acquisition with status signals, automatic calibration etc. Communication software for remote access via serial link is included.

Data from DL256 systems can be transferred to the Opsis EnviMan Air Quality Management System. Together, they form a complete unit for both data acquisition and data management in ambient air quality networks.

DL256 Data Logger

The DL256 data logger is available in two configurations: DL256 STD for stand-alone installation on any flat surface, and DL256 PRO for 19" rack installation.

The software of the DL256 completely controls the performance of the data logger. It consists of two parts, a core called IO256 and a frame named DL256. The former operates the low level sensor interfaces, while the latter serves as the user interface and takes care of the overall functionality.

Data from DL256 can be downloaded to a standard PC through a serial cable using the enclosed DLRemote software. DLRemote is also used to configure the DL256 data logger. As an alternative, configuration and automatic data downloading can be carried out using the EnviMan ComVisioner software.

The storage capacity of the DL256 depends on averaging time and number of data channels. In a typical case, the standard DL256 can hold more than one month of contiguous data. With an optional hard disk in the DL256 PRO, the storage capacity is virtually unlimited.

DL256 STD

DL256 STD includes the following parts and options:

PM020	Power supply module for IO Modules
PM104	Power supply module for PC104
CM001	Communication module
PC104	Computer card with flash disk and 2 serial ports
DM016	Isolated digital input/output module
IM016	Isolated analogue input module, or
IM032	Bipolar analogue isolated input module
Software	DL256 / IO256 / DLRemote

Options

DM002/	
DM016	Isolated digital input/output module
IM016	Isolated analogue input module
IM032	Bipolar analogue isolated input module
TM001	Isolated input module for PT100 temperature sensor
WM002	Isolated input module for WS510 wind sensor
IM001	Isolated analogue input module
OM001	Isolated analogue output module
SL104	4 extra serial ports
MC104	Modem card for PC104
TL256	Extra unit for additional signals
LP001	Lightning protection
Screen and keyboard	

DL256 PRO

DL256 PRO includes the following parts and options:

PM020	Power supply module for IO modules
PM104	Power supply module for PC104
CM001	Communication module
PC104	Computer card with flash disk and 2 serial ports
DM016	Isolated digital input/output module
IM016	Isolated analogue input module, or
IM032	Bipolar analogue isolated input module
VGA and keyboard interface	
Software	DL256 / IO256 / DLRemote

Options
All options as found on the STD system, plus:

DP104	Hard disk floppy package
PL101	Separate in/out plinths
PM020	Power supply module

Remark: The illustrations above show the DL256 Data loggers incl. various options.

Layout of the DL256 system
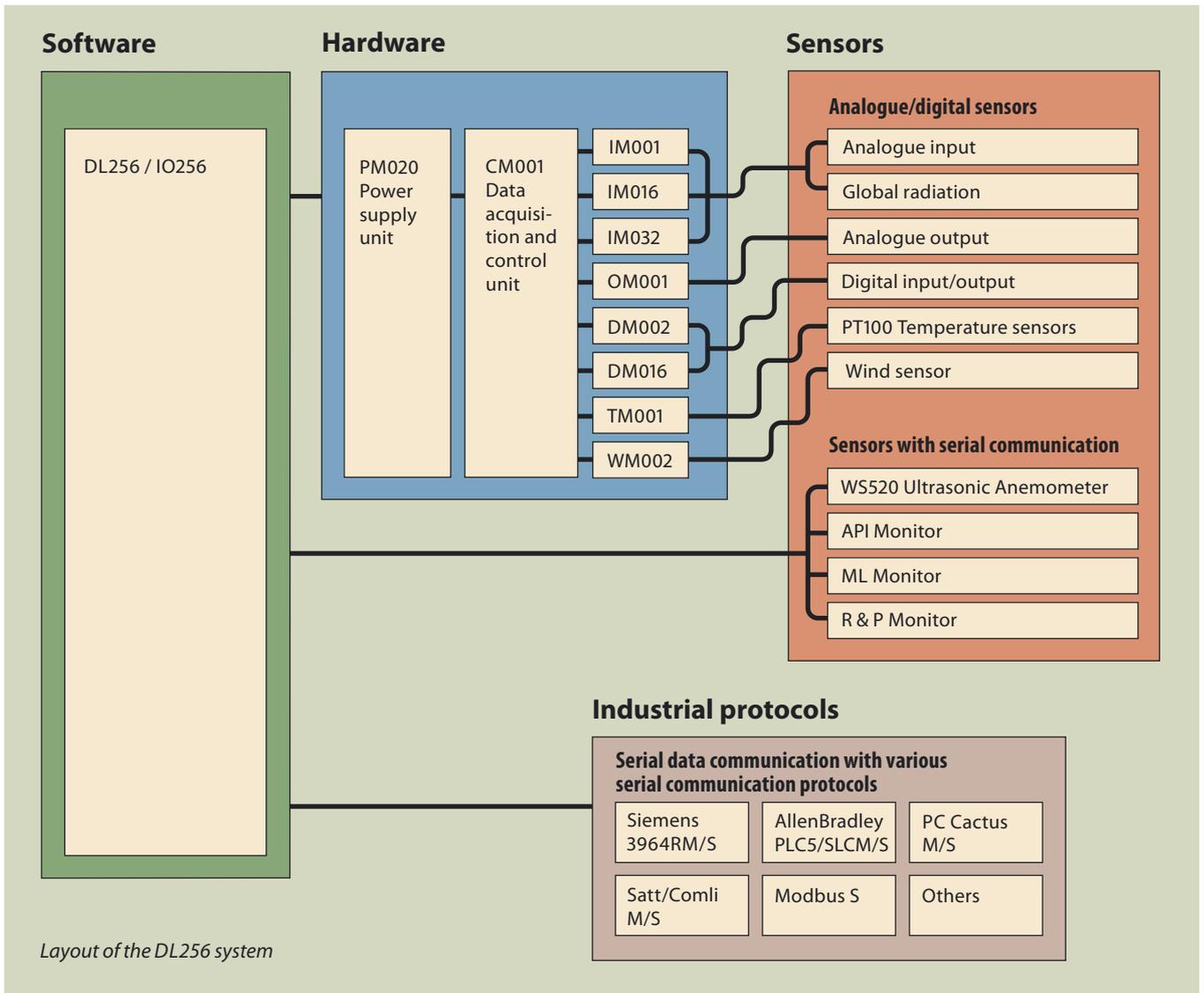
Software Interfaces for Signal Handling

Input Signal Handling
Number of channels: Up to 250

Sources
IOMan data logger and control system (serial link)
Various PLC systems – Alfa Laval (Comli), Allen Bradley, Siemens, etc. (serial link)
Various monitors – TEOM, API, ML, etc. (serial link)
Other IO256 based systems through the Cactus protocol (serial link)
Data crosslinked from output registers
WS520 3-Axis Ultrasonic Meteorological Anemometer (serial link)

Output Signal Handling
Number of channels: Up to 250

Destinations
IOMan data logger and control system (serial link)
Various PLC systems – Alfa Laval (Comli), Allen Bradley, Siemens, etc. (serial link)
Other IO256 based systems through the Cactus protocol (serial link)
Data crosslinked to input registers

Please refer to P19 for further specifications
Specifications subject to change without notice

IOMan Hardware for Signal Handling

CM001	Communication module
PM020	Power supply module
IM001	Isolated analogue input module
	0–10 V, 0–20 mA: (4–20 mA) active or passive
IM016	Isolated analogue input module
	Number of channels: 16, with common ground
	Operation: 0–10 V
IM032	Isolated differential analogue input module
	Number of channels: 16, differential input, with common ground
	Operation (input range): ±100 mV, ±200 mV, ±500 mV, ±1 V, ±2 V, ±5 V, ±10 V
OM001	Isolated analogue output module
	0–10 V, 0–20 mA: (4–20 mA) active or passive
DM002/	
DM016	Isolated digital input/output module
	Number of channels: 1+1 and 8+8, respectively
	Operation DM002 input: Status/counter/frequency (0–50 KHz)
	Input (opto-coupled)
	Output (relay)
TM001	Isolated input module for PT100 temperature sensor
WM002	Isolated input module for WS510 wind sensor
	Wind speed
	Wind direction

Why DL256 Data Logger ?

- Cost-effective modern data logger

- Flexible configuration based on modules

- Data collection software included

- Handles sensors with serial communication

- Easily upgraded

- Can handle more than 250 input and output signals

- Easily connected to the EnviMan AQMS

- Automatic calibration control