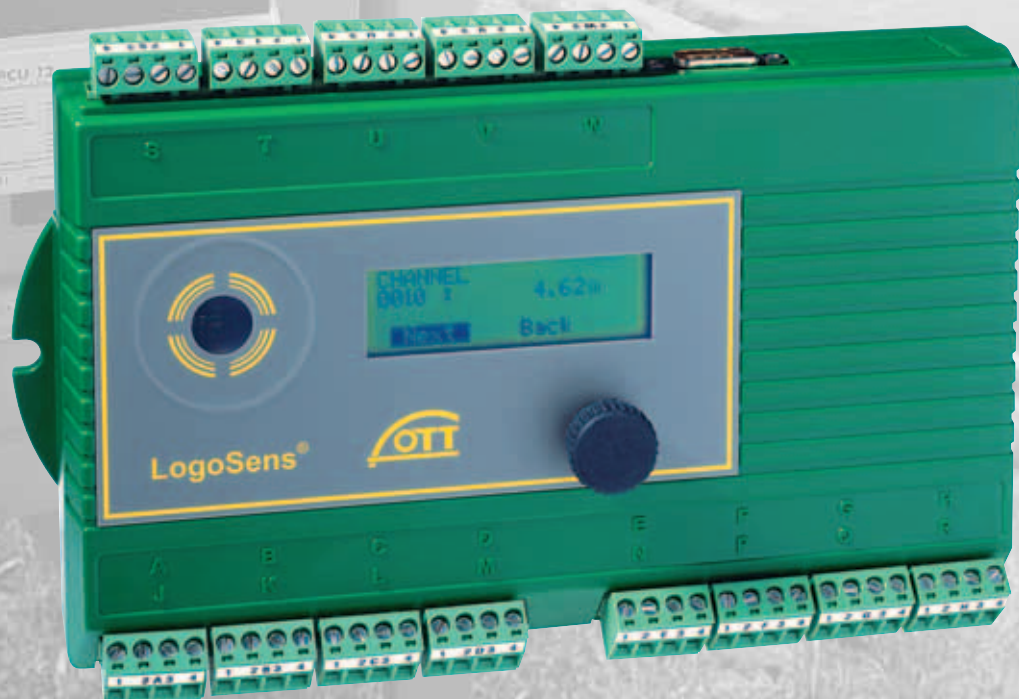


Station-Manager for the
collection, processing,
storage and transmission
of environmental data

LogoSens®



Station-Manger LogoSens

The LogoSens has been developed specifically for applications in the fields of hydrometry, meteorology and environmental technology. Its most important functions are the collection, storage, processing and transmission of environmental data. Another important feature is the ability to control external instruments and processes.

LogoSens offers the following advantages:

- input channels can be freely chosen
- compact shape
- comfortable operation
- low power consumption
- operational stability (integrated overvoltage protection)
- outstanding cost/effective ratio

Thanks to its open system-architecture the LogoSens is ready to keep up with coming customer requirements. This makes the LogoSens a promising investment for the future.

Free choice of input channels

The standard version of LogoSens has 8 physical input channels. This number can be extended to 16 channels by means of an additional board.

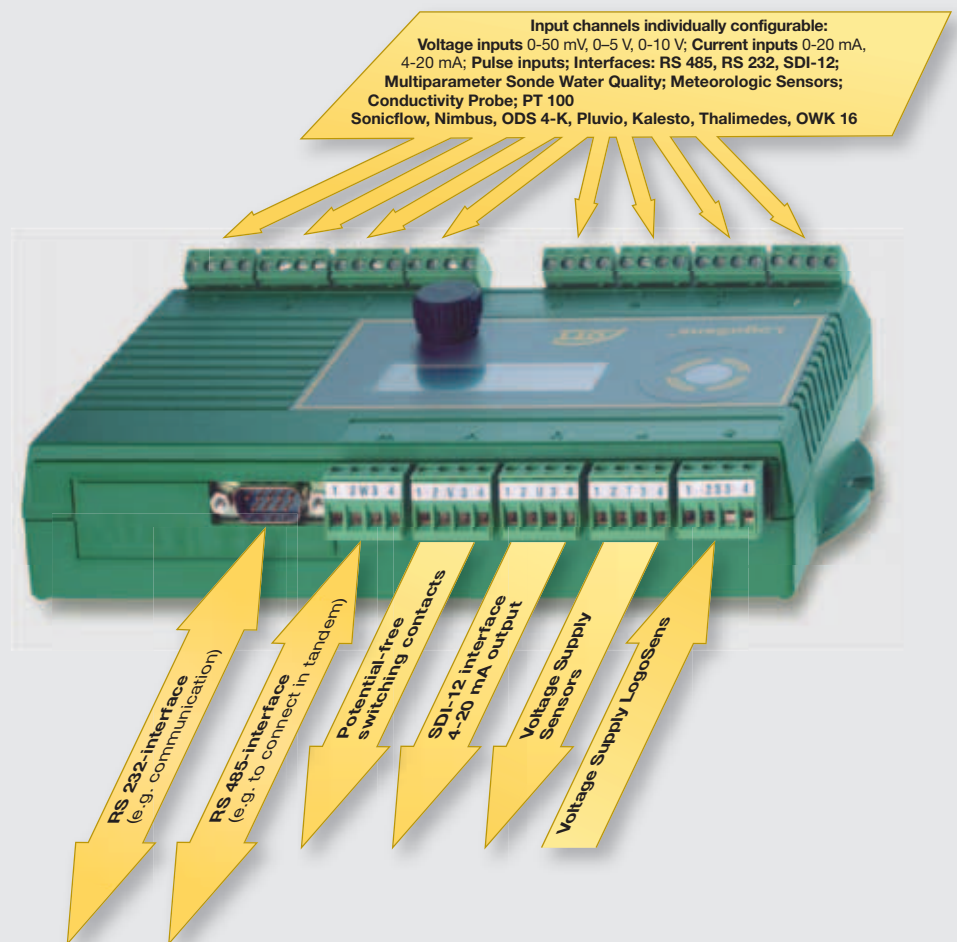
A special element in the Hydras 3 control software allows for flexible configuration of the input channels for various sensors e. g.:

- voltage or current output
- RS 232, RS 485, SDI-12 interfaces
- Pt 100
- pulse output
- conductivity
- ...



The plugin terminal adapters allow for easy connection of sensors and voltage supply without opening the instrument.

All inputs are dc-decoupled with integrated overvoltage protection.



Control/Outputs

The LogoSens has one current output (4-20 mA), two potential free contact outputs and one voltage output (5 V, 12 V, U_{bat}).

The outputs can be used to transform and forward measurement signals of the connected sensors to external systems. They can also control event-driven samplers or pumps etc.

Data Management

The LogoSens basic software version offers a storage capacity of 1 MB (can be extended to 4 MB) which enables the storage of approx. 400.000 measured values.

The LogoSens is able to control 32 channels that means that with a maximum number of 16 physical channels another 16 software channels are available for various operations.

For example it is possible to link two or more sensor-input channels by a mathematical function and to store the result on a free software channel. If an input channel is defined as RS 485 it is possible to transmit measured values from several sensors via this channel and to store them on one of the free software channels.

It is also possible to allocate alarm functions to the channels. Alarm messages can be used for example to control other installations or they can be sent as email to defined recipients via the outputs.

Operation on site

For comfortable operation on site the LogoSens is equipped with a "jog-shuttle". Via this jog-shuttle the user can e.g. adjust time settings, collect instant values of connected sensors and insert control values.



System and measurement data are shown on a graphical display.

For manual data collection/set up on site the LogoSens has an optical interface (IrDA) and a RS 232 serial interface.



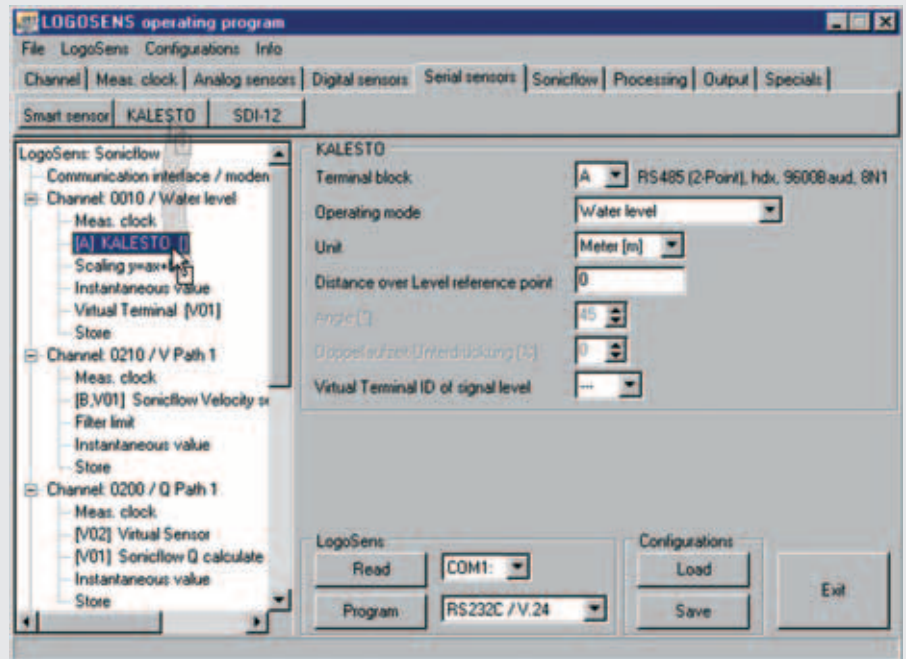
Configuration by Drag & Drop

Configuration of the input channels and of operating parameters can be easily handled with Hydras 3 software.

To configure the LogoSens Hydras 3 sets up logical channels. Each channel is displayed in a tree-diagram on the left side of the window. Functions for each channel can be easily imported from the menu into the diagram by "drag & drop".

The possibilities of a function are shown in a window which opens on the right hand side.

When the configuration is complete it can be transmitted via modem, optical or serial interface to the LogoSens.



Unlimited Communication

LogoSens is capable of synchronous and asynchronous data transfer.

For the usual synchronous data transfer for example, it is necessary that both modems, field station and central station are activated at the same time to make sending and receiving possible.

With the LogoSens asynchronous data transfer is also possible. The LogoSens at certain intervals autonomously sends out emails or SMS to defined recipients and this information is available at any time.

Data transfer is possible via RS 232, modem (analogue/ISDN), GSM, GRPS, satellite and radio.

Always up to date

The operational software of LogoSens can be updated at any time.

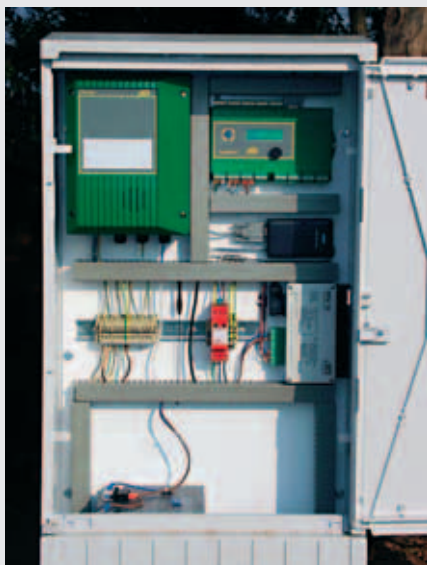
As the operational software is continuously developed you will dispose of new and improved functions all the time though the hardware remains the same.

The new functions can be downloaded for free from our OTT homepage "www.ott-hydrometry.com".

Example of Application



The Stationmanager LogoSens in an OTT Compact Station is a real alternative to the conventional measuring site shelter. It is also ideal as redundant measuring site securing reliable availability of data – even in case of emergencies.



Ultrasonic measuring system Sonicflow with Stationmanager LogoSens for continuous discharge measurement. The components are accommodated in a protective housing and can operate as a stand-alone unit thanks to solar power supply and GSM-communications option.

Technical Data

Supply voltage	+8 ... +16 V DC; typ. +12 V
Power consumption (at 12 V)	
active, taking measurements	approx. 50 mA (max. 1 min. per sensor and measurement interval)
active, no measurements	approx. 30 mA
sleep, special inputs active	approx. 1.5 mA
sleep, clock only mode	approx. 0.4 mA
Data storage	1 MB (extendable to 4 MB) for approx. 400.000 measured values; non-volatile ring memory (no loss of data in case of voltage failure)
Overvoltage protection	integrated; voltage life of all inputs up to 36 V DC; all inputs and outputs are EMV-protected to valid norms
Display	graphic design DOT matrix 122 x 32 pixel
Inputs	
Number of physical input channels	8; 16 with extension board
Pulse inputs (terminal G and H)	
frequency	max. 50 Hz
debouncing	10 ms
min. pulse time	10 ms
Voltage inputs (5 V/10 V)	
R _i for GND-related voltages	4 MOhm
R _i for floating voltages	> 100 MOhm
accuracy	0.1 % of scale max.
resolution	1 mV
Current input (0(4) ... 20mA)	
R _i	typ. 400 Ohm
accuracy	0.1 % scale max.
resolution	1 µA
Pt 100	
accuracy	± 0.1 K (without cable)
resolution	0.01 K
measuring range	-30 °C ... +85 °C
Digital inputs	RS 232-*; RS 485-*; SDI-12-interface (* OTT protocol)
Max. current (supply of sensors)	25 mA
Outputs	
Current output	4 ... 20 mA
Relais outputs	bounce-free
Max. current	max. 800 mA
	electronic short-circuit protection with automatic identification
Voltage outputs	
+5 V	1 A
V _{bat}	looped voltage supply
-12 V	100 mA
Dimensions L x W x H	216 mm x 142 mm x 48.5 mm
Weight	approx. 0.44 kg
Housing made of	ABS
Protection	IP 30
Temperature range	-30 °C ... +70 °C
Acceptable air humidity	10 ... 90 %; no condensation

OTT – Your partner for:

- Water level measurement in ground and surface water
- Discharge measurement
- Precipitation
- Water quality measurement
- Data management and communications
- HydroService: consulting, training, installation and maintenance

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