GO
SYSTEMELEKTRONIK

WE MAKE LIQUIDS TRANSPARENT.

Overview of the BlueBox System
Solutions by GO Systemelektronik

Product portfolio

Bus connectivity

Modular & Expandable

Data communication

Cloud Data Service BlueGate

Control function

BlueBox System - Product portfolio

The BlueBox system consists of the three segments of the GO Systemelektronik product portfolio, which comprises of controller units, modules and sensors. The BlueBox system is based on a concept that focuses on the connectivity and compatibility of the products. The controller units of BlueBox system serve as the central interface for all monitoring applications. The measurement and control systems allow the connection and management of extended sensor networks and to carry out the collection, calculation and handling of the measured data. The subsequent storage and transmission of the collected data can easily be accomplished.

BlueBox System

Controller Unit

BlueBox
Measurement & control system

MPS
Multi-Paramter-System

BlueMon
On-line Analyser

BlueSense
Transducer

Sensor

ISA & BlueScan
UV/Vis Spectrometer

DO sensor
Dissolved oxygen sensor

BlueTrace
Oil in Water sensor

BlueEC
Conductivity sensor

Module

BlueSense Modul
Transducer
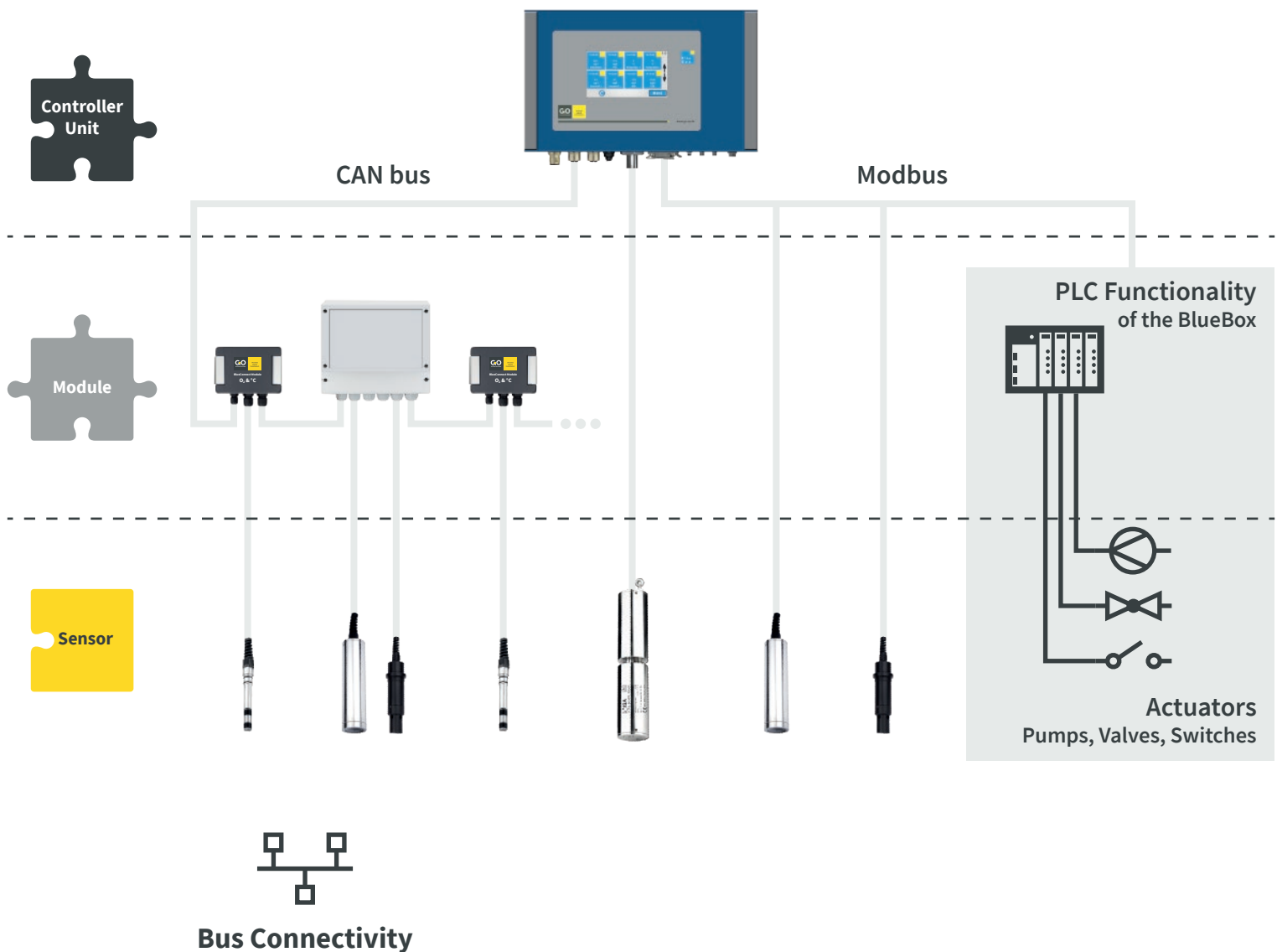
UV/Vis Module
Transducer

BlueConnect
Interface module

I/O Modules

BlueBox System - Bus connectivity

With the help of the controller units of the BlueBox System as a central interface, the integration and connection of further modules, sensors and actuators can easily be accomplished. Thereby, the available bus systems enable to set up complex measurement & control system and allow to easily link different components together.
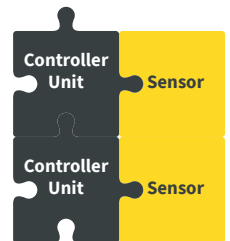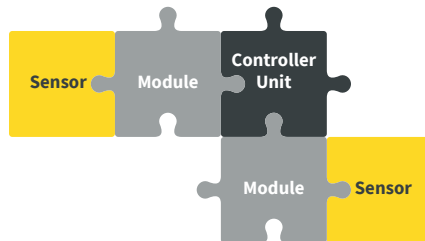

Bus Connectivity

CAN bus
The CAN bus facilitates the seamless connection of additional modules and other products of the BlueBox family. New components are automatically recognized according to the plug & play principle. Thereby, the CAN bus connection makes it possible to set up extended systems, even over long distances.

Modbus
The Modbus connection can be used as an interface for various I/O's. For example, it can serve as an output to transmit measurement values to a PLC system, or for the direct connection of sensors.

BlueBox System - Modular & Expandable

At the heart of the BlueBox system is a modular and expandable concept, which allows to easily set up complex measurement and control systems. The modular configuration of individual components ensures the optimal adaption to the requirements. Through a field bus system (CAN bus) the BlueBox system can be expanded at any time with other modules, sensors and actuators. Of cause the systems feature all of the usual interfaces and protocols to communicate with other PLC or SCADA systems.
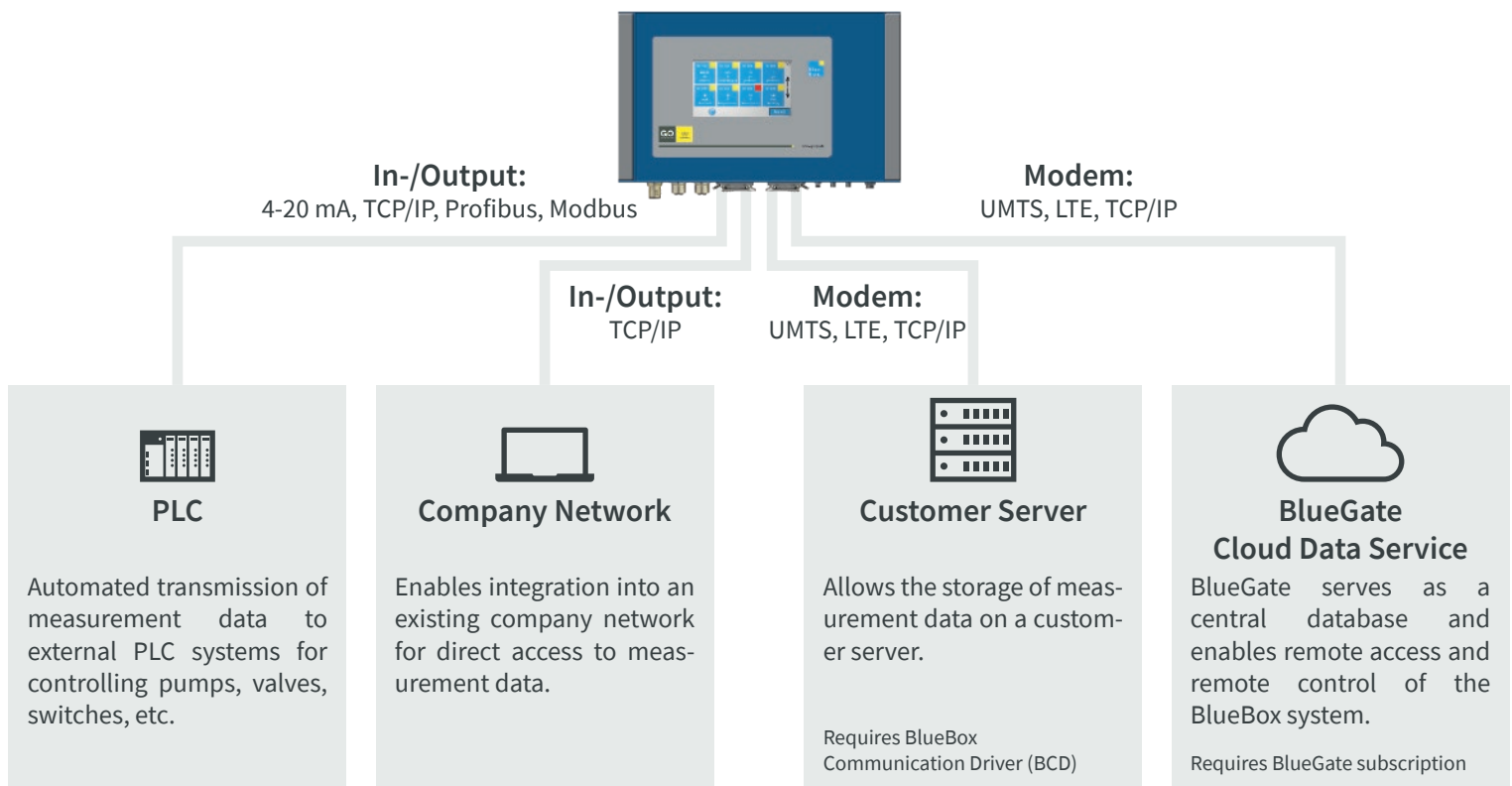

Plug & Play [Smart Sensor]

The BlueBox system applies the Plug & Play principle to ease the integration of new components. Newly connected modules, sensors and other products of the Blubox family are automatically recognized and do not require a manual set-up.

BlueBox System - Data communication

The products of the BlueBox system feature a multitude of interfaces and thus support all common forms of data communication. This ensures the integration of the systems and the availability of the measurement data, regardless of whether this involves the integration into existing or the establishment of new communication networks.

In-/Output:
4-20 mA, TCP/IP, Profibus, Modbus

Modem:
UMTS, LTE, TCP/IP

In-/Output:
TCP/IP

Modem:
UMTS, LTE, TCP/IP

PLC

Automated transmission of measurement data to external PLC systems for controlling pumps, valves, switches, etc.

Company Network

Enables integration into an existing company network for direct access to measurement data.

Customer Server

Allows the storage of measurement data on a customer server.

Requires BlueBox Communication Driver (BCD)

BlueGate
Cloud Data Service

BlueGate serves as a central database and enables remote access and remote control of the BlueBox system.
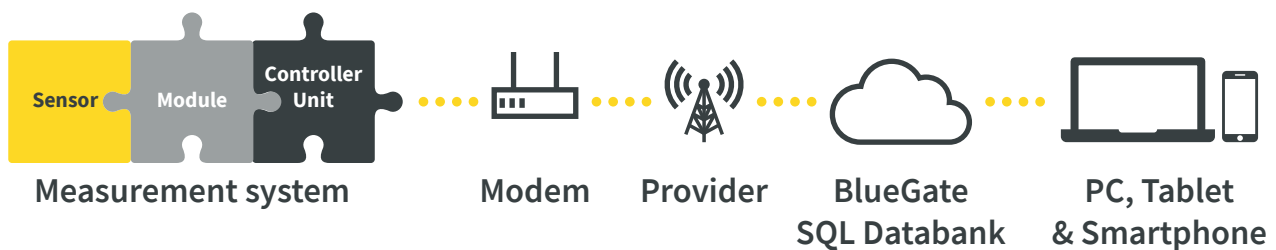
Requires BlueGate subscription

Intelligent Event Handling

With the help of the flexible communication possibilities of the BlueBox system it is possible to transmit events locally or via telephone, network, mobile network, and satellite, if required through redundant paths, in a swift and reliable manner. All usual services like SMS, email, FAX and network protocols are available for the transmission. Response times for alarms and events can thereby be minimized and the reliability of operation can be optimised.

BlueBox System - Cloud Data Service BlueGate

The BlueGate cloud data service automatically backs up all data and provides remote access via any web browser. The service offers a live data view, visualisations, and the and ability to export all measurement data. BlueGate also allows to set up alarms such as notifications for the exceedance of thresholds. All communications over public networks between BlueBox - BlueGate - and customer systems are encrypted.

| Measurement system | Modem | Provider | BlueGate SQL Databank | PC, Tablet & Smartphone |

BlueGate Functions & Features

Intelligent Event Handling

BlueGate offers intelligent event handling via SMS and email notifications, e.g. alarms when limit values are exceeded or in the event of relevant sampling times.

Remote Control & Service

With BlueGate's gateway functionality, it is possible to change the settings of the measurement systems remotely and solve service problems without having to be on-site.

Remote Access

BlueGate enables worldwide access to all stored measurement data via any browser without the need for any special software.
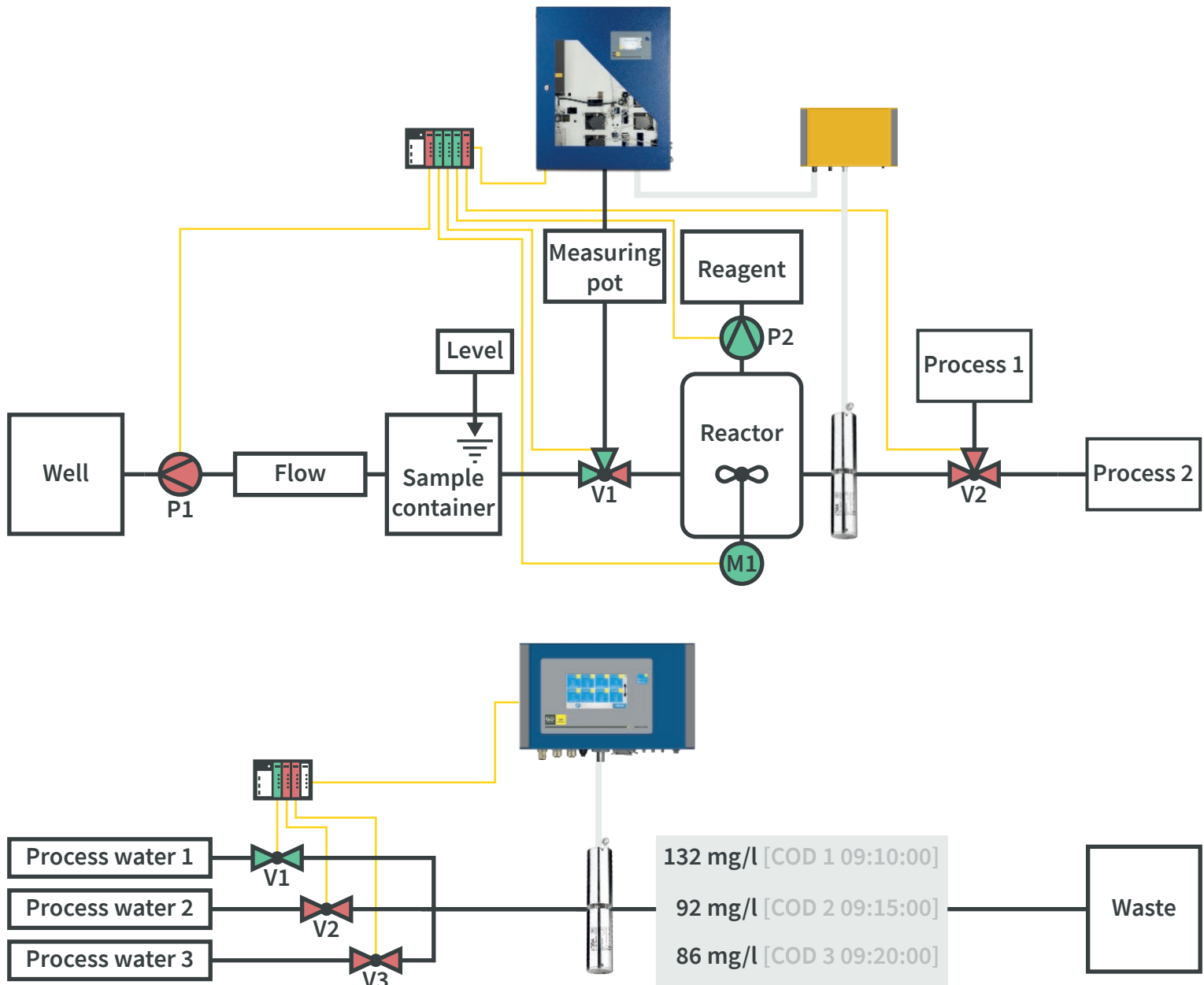
Data Backup

BlueGate automatically saves all measurement data in a central database that can be easily exported.

BlueBox System - Control function

All products of the BlueBox system feature an extensive PLC control functionality that allows to easily manage processes of all scales, from the simple switch of a valve to more complex industrial applications. In addition to the integrated relays, it is possible to effortlessly connect and control external actuators, like pumps, valves or motors. The availability of virtual sensors, for example for the calculation of averages, further extends the control capabilities of the system. The system provides a straightforward approach to write control commands even for complex processes.