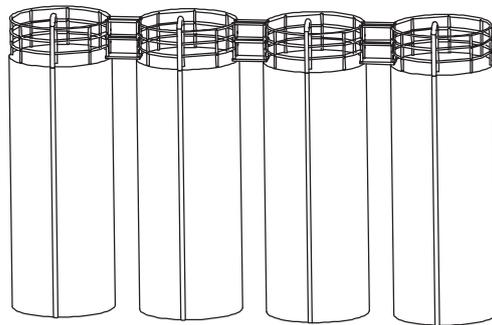
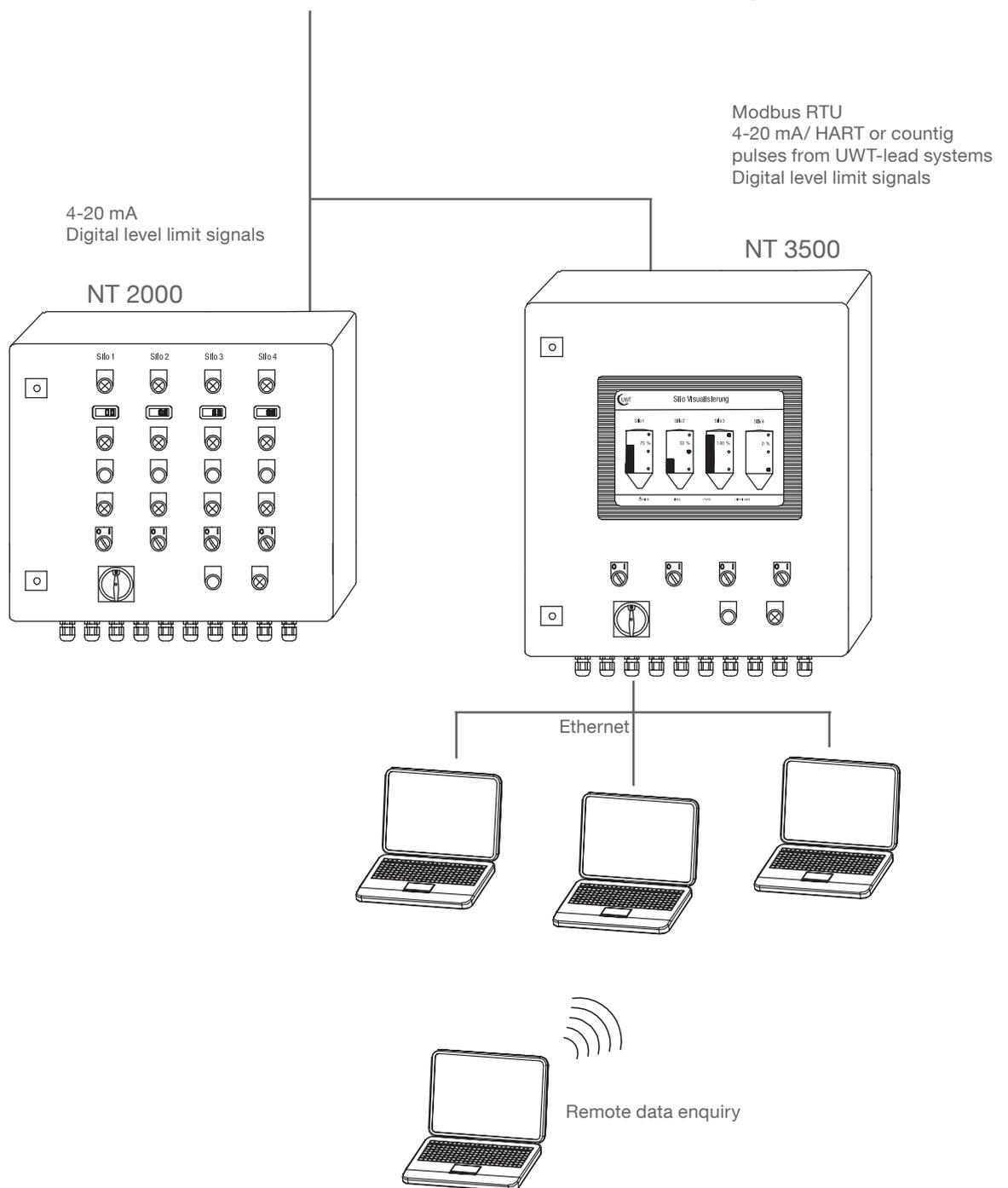
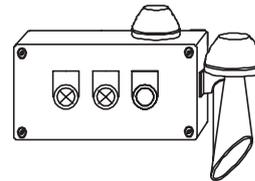


Overview

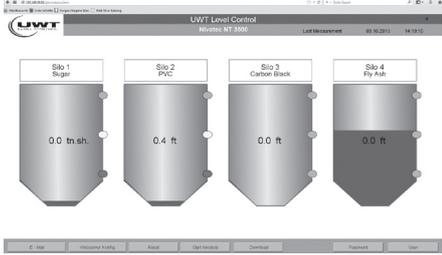
Silo plant with continuous level measurement technology, level limit sensors and shut off valves in the filling pipes.



Truck module



Overview

	NT 2000	NT 3500
		
System	Control cabinet system for display and monitoring of contents with digital instrumentation and LEDs for level limits.	Control cabinet system for display and monitoring of contents and levels. The self contained system works with visualisation software on a web server.
Number of silos	Max. 10 (more are possible on request)	Max. 50 (more are possible on request)
Software	Not available	Licence free visualisation software in HTML form. Password-protected access on alle Ethernet PCs.
Control cabinet	Standard equipment	Standard equipment or pre-mounted on cap rail
Input signal	Analogue inputs (4-20 mA)	<ul style="list-style-type: none"> - Modbus RTU of Nivobob® 3000 - Analogue inputs (4-20 mA) - Counting inputs (from electromechanical lead systems) - Profibus available on request
Alarm signal Silo-„full“	Optional - Full signal available as a flashing light with buzzer	Optional - Full signal available as a buzzer
Display in the control cabinet door	<ul style="list-style-type: none"> - Digital display for silo level - LED for full and empty signal 	<ul style="list-style-type: none"> - Touch panel 10", 4" or 15" - Digital display for silo level - LED for full and empty signal
Remote data request	Not available	Via Internet (VPN tunnel) or GSM Modem
Trend data	Not available	The recording of the level data is made internal as a ring buffer. These can be exported and processed as .csv.
Truck module	Optional <ul style="list-style-type: none"> - Silo Mounting - Display Silo "full" via LED and flashing light with buzzer - Reset by push button 	Optional <ul style="list-style-type: none"> - Silo Mounting equipment - Display Silo "full" via LED and flashing light with buzzer - Reset by push button
Pinch valve control	Not available	Optional <ul style="list-style-type: none"> - Automatic in case of silo full detection - Release via key switch/ PC/ Touchpanel
Interfaces	Not available	<ul style="list-style-type: none"> - Modbus RTU - Ethernet - Profibus on request

Technical data

Dimensions	Depending on the number of silos
Material , degree of protection, ambient temperature	Control cabinet: steel plate, IP54, 0 .. 50°C Truck module: steel plate, IP65, -25 .. +60°C Terminal box NT50: steel plate, IP65, -25 .. +60°C
Supply voltage	230 V 50 Hz
Supply power	Depending on the number of silos and connected sensors

NT 2000

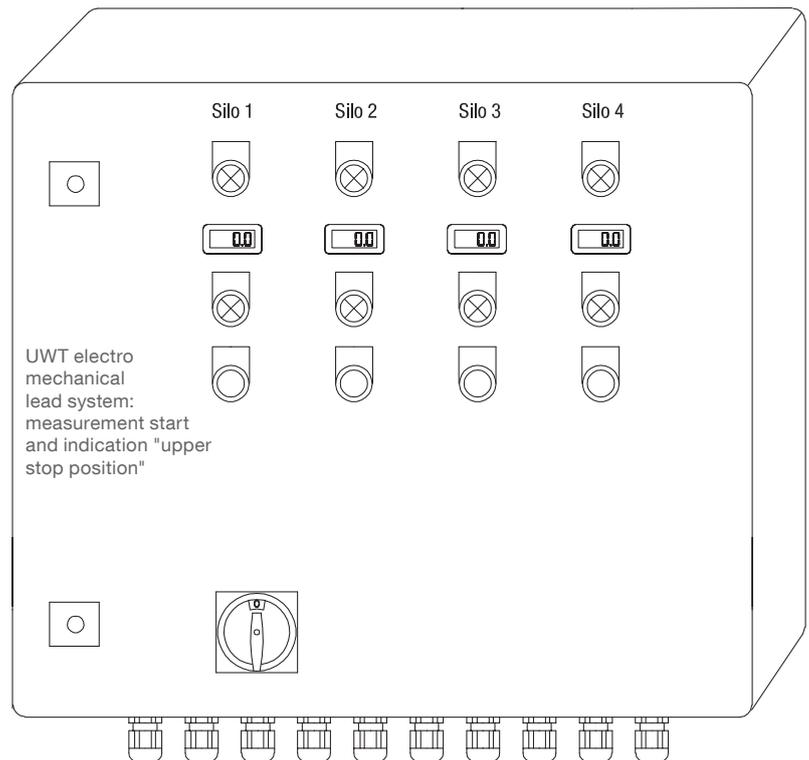
Features

- Fill level indication on an LED display in percentage, height, volume or weight
- Simple and easy handling of the various display elements
- Evaluation of the analogue 4-20 mA signals of any sensors
- Fill control via full alarm signal
- Separate truck module for comfortable monitoring during silo filling

NT 2000 control cabinet

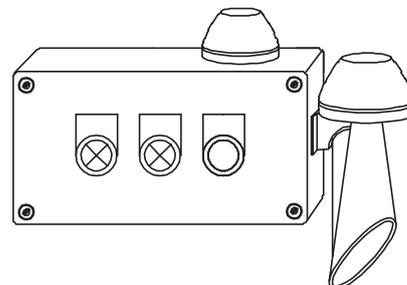
The NT 2000 offers the level indication modules and monitoring functions integrated in a control cabinet.

The fill level is displayed via the NivoTec® NT 4900 digital display, the level limits via full and empty LEDs. 4-20 mA signals are evaluated. It is possible to integrate an alarm signal with a buzzer which signals when the silo becomes full during filling. The buzzer can be mounted directly on the silo. The NT 2000 is a complete system which also provides the supply voltage for the sensors. It is delivered with project specific electrical plans.



Truck module

For use with one silo.
 Mounting directly on the silo frame.
 Indication of empty and full level with LEDs.
 Reset of alarm "Silo full".



Example: Truck module with full/empty LEDs, push button for reset of alarm "Silo full"

NT 3500

Features

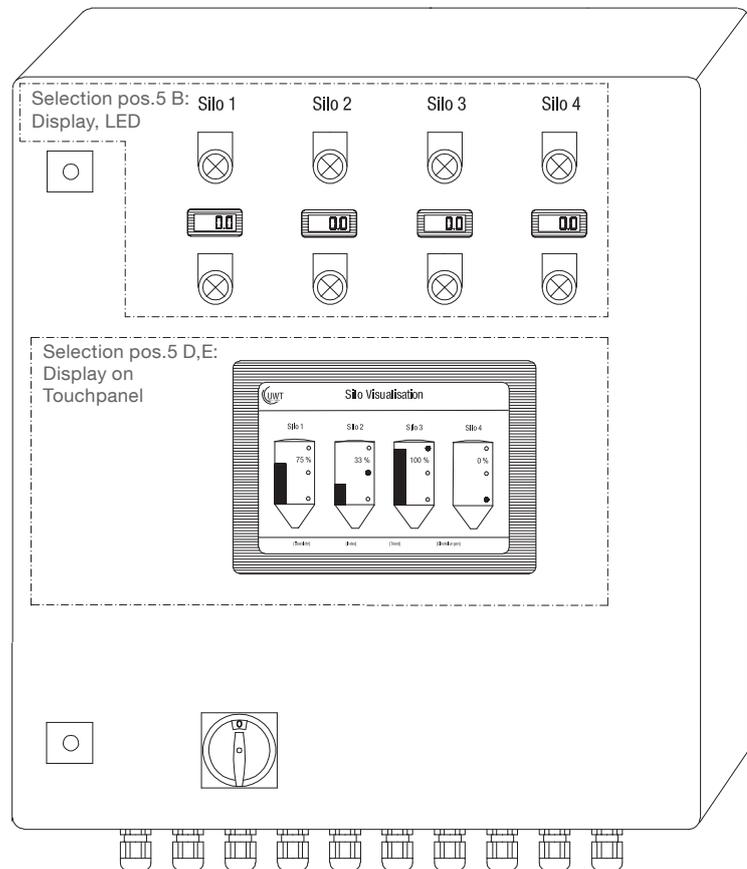
- Fill level visualisation via HTTP-web server
- Visualisation via standard Internet browser software on all Ethernet PCs
- Password protected
- Worldwide remote enquiry of the level password protected - on request
- Software operation additional via a touch panel in the control cabinet or via fill level LEDs
- Data in percentage, height, volume or weight
- Trend display, data storage, export via .csv
- Evaluation of the analogue 4-20 mA signals of any sensors, as well as Modbus RTU of the UWT-systems
- Different input signals within the same system is possible
- Fill control via full alarm signals and shut off valves
- Separate truck module for safe and comfortable monitoring during silo filling

NT 3500 control cabinet

The heart of the NT 3500 is a web server module, which the visualisation software uses. All fill level control and display functions can be operated via the visualisation on a PC or a Touch panel with backlight. An Ethernet interface ensures that the visualisation can be simultaneously operated from all PCs which are connected to the interface. Access is password protected. Additionally the control cabinet can be equipped with operating and display elements. Either the 10.4" or 15" touch panel or the digital level display with full and empty LEDs can be chosen. The electromechanical lead system can be started by the visualisation or by a push button. A buzzer for alarm "silo full" can be mounted directly on the silo. Control for pinch valves to stop the filling is available. The NT 3500 is a complete system which also provides the supply voltage for the sensors. The system is delivered with project specific electrical plans.

Functionality of alarm "silo full" and control of the pinch valves:

1. The filling (opening of the pinch valve) is enabled either via the hose coupling when connecting the filling hose, via a key switch on the cabinet or on the truck module or via PC/ Touch panel.
2. In case of an alarm "silo full" the pinch valve closes, the LED "silo full" and the buzzer is switched on, the reset button is blinking. After reset of the alarm the pinch valve opens for ca. 5 min to enable the expulsion of the filling pipe, then it is closed again. Independent from this control the pinch valve can be opened or closed by an authorized user at any time.



Truck module

- One module for a defined number of silos (depending on the project)
- Mounting directly at the silo frame
- Display silo full/ empty and pinch valve status with LEDs
- Reset of alarm "silo full"
- Key switch for pinch valve control

