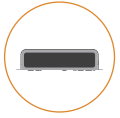# NEX·U·

FLUID MANAGEMENT SYSTEM

SAMOA®

SAMOA QUALITY AND LEADERSHIP

FLUID HANDLING TECHNOLOGY

SAMOA, a privately owned company, is a leading European manufacturer of Lubrication and Fluid Handling Equipment. SAMOA products are used for transfer, dispense, dose and recover. SAMOA designs and manufactures a variety of products that includes air operated piston and diaphragm pumps, volume flow meters, delivery guns, electronic components for inventory control systems, hose reels, hand pumps and accessories.

PRODUCT DEVELOPMENT

Product research and development is a fundamental part of SAMOA's philosophy. We are in constant contact with the market to identify new customer needs, delivering product improvements and new products.

MANUFACTURING

SAMOA's headquarters have been in Gijón, on the Spanish North Coast, for over 60 years. SAMOA's manufacturing facilities are modern and equipped with the latest state-of-the-art production equipment and technology. We are committed to design and manufacturing excellence, environmental sustainability and a healthy and safe workplace; our work processes and facilities are consequently ISO 9001, ISO 14001 and OHSAS 18001 certified.

DISTRIBUTION

Our products are available through a network of knowledgeable distributors. This global network provides a sales and consulting service that identifies the products to best meet each customer's needs, and when required offers after sales service to ensure a long and satisfactory use of our equipment.

GLOBALLY COMPETITIVE

Our continuous product improvement process ensures that our products meet customer requirements worldwide, even with the most demanding applications and environments. As a result, we are proud to say that SAMOA products are reliably working away, night and day, in more than 100 countries.

Headquarters Offices and Technical Centre in Gijón (Spain)

YOU NEED TO CONTROL YOUR FLUIDS INVENTORY

It is more than likely that your stock control for parts and consumables is well established, with charges for those items passed to customers as a matter of course.

But can you reconcile your oil purchases with oil sales and usage?

Do you know where every litre of oil is used?

Do you know how much just "disappears"?

Lost inventory equals lost profit. With today's high oil prices, Inventory Control eliminates that worry.

WHY NEX·U·®

NEX·U·® provides you with the control and the information you require to make your operation more profitable. You will be able to account for every drop of lubricant and other service fluid used. On top of this, you will carry an efficient inventory control, with automatic alerts and fluid reordering when needed, eliminating operations downtime.

For almost any lubricant usage or operation size, with today's high cost for these fluids, **NEX·U·®** quickly pays for itself. Once it is paid for, savings go right to the operation's bottom line in form of profit, profit previously lost.

NEX·U·® adapts to your way of working.

NEX·U·® is a hybrid system that brings you all the advantages of wireless flexibility and hard-wired reliability:

Wireless flexibility

- Data can be transmitted wirelessly among the different system components, eliminating long and expensive cable runs.
- Easily adds new components when required as your needs grow.
- System uses existing Wi-Fi® networks, simplifying its installation. No need for special, custom made, network components.

Hard-wired reliability

- A constant and reliable power source is always present to power the solenoid valves that control fluid delivery.
- No uncharged batteries to let you down.
- Hard-wired data transmission to avoid interferences and other obstacles which might interfere with wireless data transmission.

NEX·U·® combines the Latin word "NEXUS", which means connection to wireless or hard-wired connected system components, with "U" (You), the system User, the Human.

NEX·U·® has been conceived with the user in mind, making fluid management and fluid inventory control an easy, trouble free activity.

NEX·U·® contributes to increase productivity in vehicle service operations:

• Provides total control and record of every fluid dispensed.
• Secures access to fluids only to authorized technicians.
• Provides accurate, real time fluid inventory information.

NEXUS + YOU = NEX·U·®

NEXUS

WIRED

WIRELESS

+

YOU

=

NEX·U·®

MAIN COMPONENTS

U·net
NEX·U·® Central Processing Unit. Controls and manages all components functions and communications, wired or wireless.

U·track
NEX·U·® software. Included in the U·net, is the user and system interface. Generates useful reports, keeps control of inventory and can communicate with almost every DM system.

U·dat
System keypad. With a full colour, touch screen and a full QWERTY keypad provides full access to NEX·U·® and U·track.

U·vision+
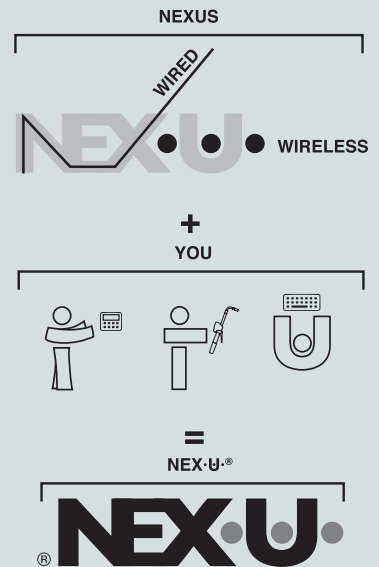Hand-held display with system access keypad.

U·valve
All in one flow control unit. Includes pulse meter, solenoid valve, filter and electronic circuit board for operation control and communication with other system components.

U·tank
Provides real-time inventory control and manages different alarm points.

U·NET: NEX·U·® SYSTEM CENTRAL PROCESSING UNIT U·TRACK: NEX·U·® SOFTWARE

U·net is the key NEX·U·® component. It is the central processing unit that controls the system communications and houses the U·track software.

U·net includes a powerful 2.4 GHz processor and 4 GB RAM. It controls the system functions and it manages the wired and wireless communication between the NEX·U·® components.

It has two CAN bus ports (in/out) for wired communications and an ethernet port that allows **U·net** to connect to an existing Wi-Fi® network or to create a dedicated Wi-Fi® network.

Unet

153 mm
42 mm
98 mm
30 mm
161 mm

2 x CAN bus

Power 110-240 V
HDMI
Ethernet
4 x USB
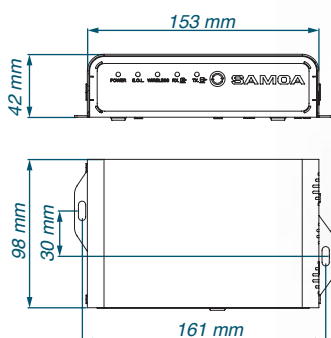
U·net specifications:

- Intel 2,4 GHz processor
- 4 GB RAM memory
- 64 GB storage capacity
- One Ethernet, one UART (RS232), one HDMI, four USB and two CAN bus (in/out) ports.
- 110-240V AC - 5V DC transformer included.
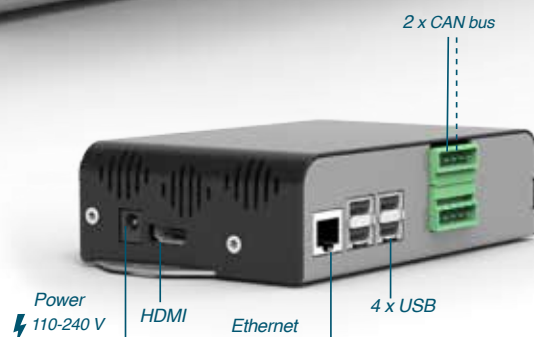
U·net also includes the U·track software.

U·track is a powerful web based software package that gives you full control of fluid usage and inventory. It is a web based software that allows multi-user applications. All PCs or tablets in the same network and in the same location can have access to U·track. U·track can work using IOS, Windows or Linux operating systems.

Thanks to U·track you will be able to:

- Simple and intuitive system set-up
- Simplified system maintenance (manage users, fluid inventory, etc.).
- Manage all the system hard-wired and wireless communication.
- Generate a wide variety of reports, which can be easily exported in Excel format.
- Record and manage Validated Preset Transactions (required for operating with U·Vision+)
- Transform any PC terminal in the workshop into a NEX·U·® virtual keypad.

U·track also contributes to increase your operations efficiency and profitability:

- Keeps control of every drop of fluid dispensed in the system.
- Improves inventory accuracy, generating automatic warnings and email notifications for reorders and critical predefined inventory levels.
- Generates a variety of reports, to help you track dispense information such as date and time, technician, work order, fluid dispensed, volume delivered, etc.
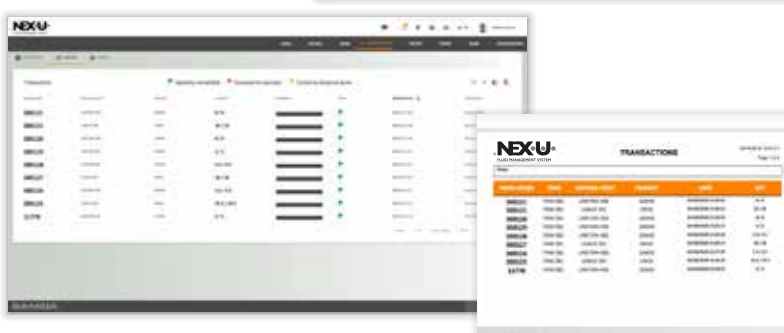
Utrack

U·track dashboard screen.
Provides, in a glance information on oil inventory and oil usage. Just click on any tank for more information.
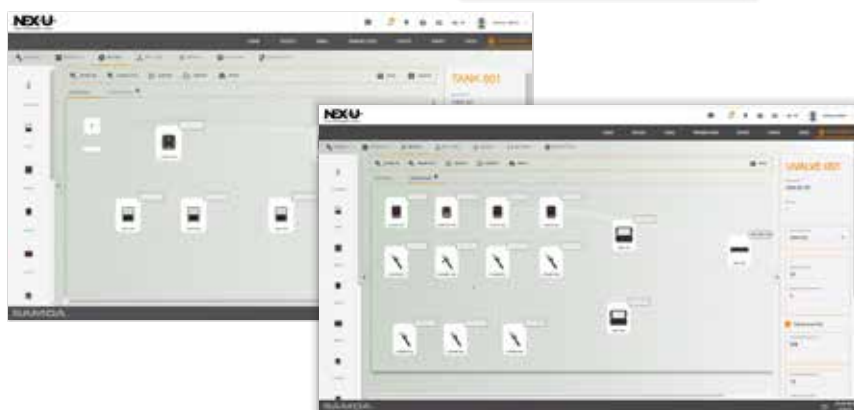
Tanks and system set-up screen examples.
NEX·U·® system can be very easily set-up using U·track.

Transactions can be followed and monitored on real-time basis if required. Thanks to U·track, each PC terminal or tablet connected to the same network used by NEX·U·® is converted into an access keypad to the NEX·U·® system (additional licenses may be required).
U·track can also generate different reports that can be exported easily into Excel format.

ORDERING INFORMATION

U·track makes also possible communicating with most workshop DMS systems.

Part No.	Description
383 300	U·net central processing unit. Includes U·track software.
383 650	Virtual Keypad license. Converts any terminal (PC, laptop, tablet or smartphone) in a NEXU access Keypad. One license required per each terminal.

DEALER MANAGEMENT SYSTEM CONNECTION

U·net and **U·track** are sold together. Optional licenses to access U·track from additional PC or Laptops, tablets, etc. and to communicate with DMS are available.

• U·track offers connectivity with most popular Dealer Management Systems (DMS) in the market, offering an efficient bi-directional communication.
• Web service interface developed using communication standards (SOAP, REST).
• Single or multiple validations of transactions (ex: Job Number, Oil Type, Litres, etc.)
• Export of all transactions data to the customer DMS.
• Other communication formats available (only single validation), such as: Text Files (.TXT) or Database (ODBC).

Contact your SAMOA Distributor who will assist you with the license software you need.

SYSTEM ACCESS:
MULTIPLE POSSIBILITIES

Udat

Udat power+

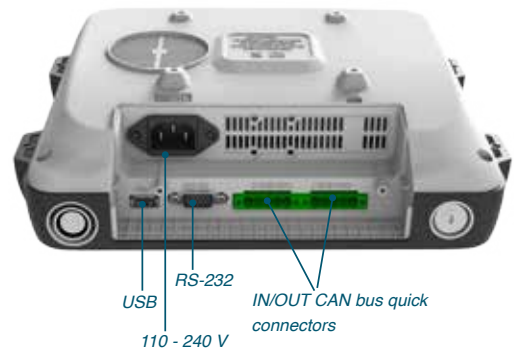NEX·U·® adapts to the way you work and it offers multiple possibilities for accessing the system.

Technicians can access NEX·U·® via:
· **U·dat:** System access keypad
· **U·vision+**
· **Any PC terminal**, smart phone or tablet in the workshop with an additional access license.

U·dat:
ACCESS KEYPAD

USB

RS-232

110 - 240 V

IN/OUT CAN bus quick connectors

U·dat connection panel.
All wired connections can be done fast and easy without opening the U·dat.

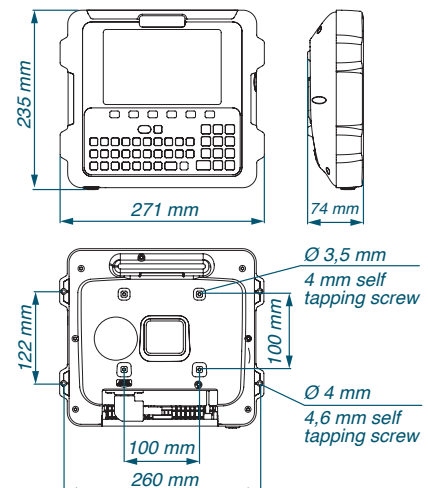**System Access Keypad. U·dat allows system access to technicians either though a PIN code or using a RFID card.**

· U·dat includes a 7" full colour graphics display and a complete QWERTY keypad.
· U·dat supports CAN bus cable communications, that transmits data and the power to open the solenoid valves in the system. Cabling is easy using "plug-and-play" type connectors.
· U·dat includes the transformer required to simultaneously open 8 solenoid valves.
· U·dat also supports Wi-Fi® data communication with other system components.
· U·dat requires 110 - 240 V power supply.

U·dat:

· 110 - 240 V AC
· CAN bus in/out
· Supports Wi-Fi® communications

235 mm

271 mm

74 mm

122 mm

100 mm

Ø 3,5 mm
4 mm self tapping screw

Ø 4 mm
4,6 mm self tapping screw

100 mm

260 mm

ORDERING INFORMATION

Part No.	Description
383 000	**U·dat power+ keypad** NEX·U·® access keypad with 7" colour screen and QWERTY keypad. One USB, one RS232 and in/out CAN bus ports. 110 - 240 V AC, with a 320 W transfer to open 8 solenoid valves, supports CAN bus and Wi-Fi® communications.
383 020	**U·dat keypad** Same as above, but with a 75 W transfer to open 2 solenoid valves.

Product specifications are subject to change without prior notice

U·vision⁺: HAND-HELD DISPLAY AND KEYPAD MODULE

U·vision⁺ includes a six-buttons keypad and it can replace the U·dat keypad for data entry in the system as it allows the following operations:

• User access through PIN enter.
• Scroll through existing open job orders to select the one corresponding to each operation or enter the job order number (digits only).
• Enter the volume of fluid to be dispensed.
• Confirm fluid type and transaction.

U·vision⁺ has a backlight display connected using Bluetooth® with a U·valve, U·meter⁺ or U·count and it displays the following parameters:

• Hose reel (fluid outlet number and fluid dispensed type).
• Battery life and Bluetooth® signal strength.
• Volume delivered and operation progress.
• U·valve solenoid valve open or closed.

U·vision⁺ is powered with 4 "AA" 1.5 V alkaline batteries.
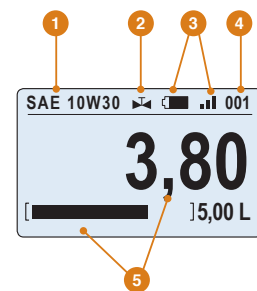
1 Fluid dispensed type.
2 Solenoid valve open or close.
3 Battery life and Bluetooth® signal.
4 Hose reel / fluid outlet number.
5 Volume delivered and operation progress.

Four scroll / navigation buttons — Enter button

Enter technician PIN number
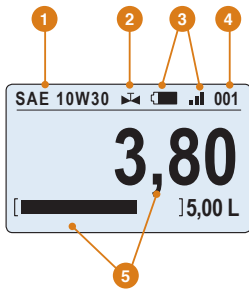
Enter / select job order number

Enter volume to deliver

U·vision+ adapts to any SAMOA oil control handle and transforms the handle into a hand-held display and keypad for accessing to the NEX·U·® system.

ORDERING INFORMATION

Part No.	Description
383 401	U·vision⁺ hand-held keypad and display module. (Oil gun not included).

NEX·U·®
REMOTE DISPLAYS

U·vision

U·vision

Hand-held display module to fit a SAMOA oil control handle. Includes a backlight display connected via Bluetooth® with a U·valve, U·meter+ or U·count module and it displays the following parameters:

· Hose reel (fluid outlet number and fluid dispensed type).
· Battery life and Bluetooth® signal strength.
· Volume delivered and operation progress.
· Solenoid valve open or closed.

ORDERING INFORMATION

Part No.	Description
383 400	U·vision hand held display module. (Oil gun not included).

Oil gun not included.

1 Fluid dispensed type.
2 Solenoid valve open or close.
3 Battery life and Bluetooth® signal.
4 Hose reel / fluid outlet number.
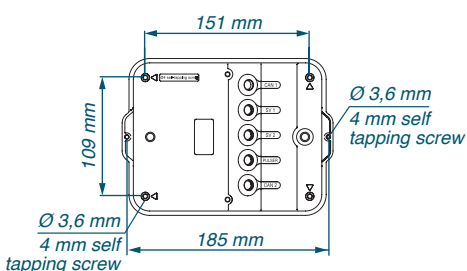*5 Volume delivered and operation progress.*

U·view

U·view

Remote, high visibility, LED display that shows the volume delivered through various U·valves (no simultaneous operation supported). U·view supports Wi-Fi® and hard wired communication.
U·view requires hard-wired connection (data and power) to a U·dat keypad or to a 110 - 240 V AC power supply using a 24 V DC external transformer (U·power or U·power+).

144 mm
194 mm
63 mm

151 mm
109 mm
185 mm

Ø 3,6 mm
4 mm self tapping screw

Ø 3,6 mm
4 mm self tapping screw

ORDERING INFORMATION

Part No.	Description
383 700	U·view remote display module

Product specifications are subject to change without prior notice
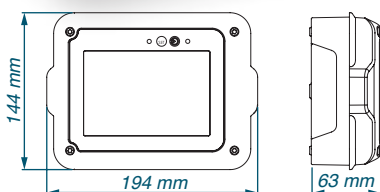
VOLUME METER

NEX·U® obtains the dispensed volume information from oval gear meters. These meters transmit a pulse per each fraction of volume dispensed. **NEX·U®** recognizes and processes these pulses to shut down the solenoid valves once the desired volume is reached and to maintain control of inventory and pumps operations.

Meters are placed between the dispense line, not in the hand. This way they are not subject to accidental damage and they cannot be easily by-passed so every drop of fluid delivered counts.

There are different meter models to meet the needs of each application.

Component	Pulse meter	Solenoid valve	Communication module	Bluetooth®	Wi-Fi®	Materials and Inlet / outlet ports available
U·valve	Yes	Yes	Yes	Yes	-	Aluminium 1/2"
U·valve+	Yes	Yes	Yes	Yes	Yes	
U·meter	Yes	-	Yes	-	-	Aluminium 1/2" and 3/4"
U·meter+	Yes	-	Yes	Yes	-	
U·pulser	Yes	-	-	-	-	PVC & SS 1/2"
U·pulser+	Yes	Yes	-	-	-	Aluminium 1/2"
U·count	-	-	Yes	Yes	Yes	N/A

U·valve

U·valve combines, in a compact unit, a high accuracy pulse meter, a solenoid valve and a large cleanable fluid screen filter with the electronic module required to control the meter and valve operation and to communicate with other system components.

- Reduces installation time and eliminates the risk of leaks when using separate components.
- It has a large, high visibility LED display showing the U·valve number assigned in the System and the U·valve operation.
- Four coloured LED lights that show the U·valve operation for diagnosis

- and two buttons for system configuration.
- U·valve supports CAN bus cable communication that transmits data and the electric power required to open the solenoid valve and Bluetooth® connection to a U·vision or a U·vision+ fluid handle with display.

- U·valve+ includes Wi-Fi® communications for data transmission to other system components. (Reguires U·power or U·power+ power supply units).
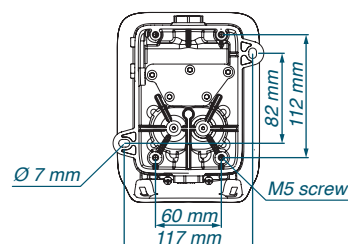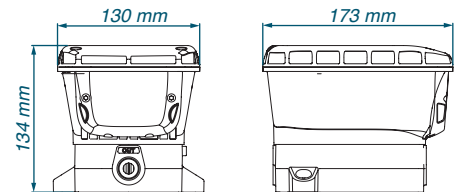- U·valve and U·valve+ require 24 V DC supplied by a U·dat or a U·power module.

U valve
U valve+

Product specifications	
Wetted parts	Aluminium, NBR, stainless steel, acetal
Applications	Lubricants, antifreeze solutions
Connection threads	1/2" BSP (F)
Flow range	1 - 30 l/min
Pulses per litre	328 ppl
Accuracy	+/- 0,5 %
Maximum working pressure	100 bar
Solenoid valve	24 V DC
Communication	CAN bus, Bluetooth®, Wi-Fi® (U·valve+ only)

U·valve and U·valve+ wired connections use fast connection in/out CAN bus terminals.

ORDERING INFORMATION

Part No.	Description
383 501	U·valve meter, solenoid valve and electronics module. Includes Bluetooth® communication for connecting to a U·vision or U·vision+
383 500	U·valve+ meter, solenoid valve and electronic module. Includes Bluetooth® connection to a U·vision or U·vision+ and Wi-Fi® for data transmission to other components in the system

130 mm
173 mm
134 mm
82 mm
112 mm
Ø 7 mm
M5 screw
60 mm
117 mm

Product specifications are subject to change without prior notice

U·meter

High accuracy compact pulse meter including the electronic module required to control the meter and valve operation and to communicate with other system components through CAN bus.

- With an LED display showing the U·meter number assigned in the system, four coloured LED lights that show the U·meter operation for diagnosis and two buttons for system configuration.

- Equipped with fast connection in/out CAN bus terminals.
- Available in different materials and sizes to match different applications.

U·meter+ includes Bluetooth® connection to a U·vision or a U·vision+ module.

383 514

383 520

U·meter+ includes Bluetooth® for connecting to a U·vision or U·vision+.

U·meter Part No.	381 513	383 525	383 522	383 520
Wetted parts	Aluminium, NBR, stainless steel, acetal	Aluminium, NBR, stainless steel, acetal	PVC, Vectra®, stainless steel, Viton®	Stainless steel, Vectra®, Viton®
Applications	Lubricants	Lubricants, diesel	DEF/AdBlue®, windshield wash and antifreeze solutions	DEF/AdBlue®, windshield wash and antifreeze solutions
Connection threads	1/2" BSP (F)	3/4" BSP (F)	1/2" BSP (F)	1/2" BSP (F)
Flow range	1 - 30 l/min	8 - 80 l/min	1 - 50 l/min	1 - 50 l/min
Pulses per litre	328 ppl	109 ppl	320 ppl	320 ppl
Accuracy	+/- 0,5 %	+/- 0,5 %	+/- 0,5%	+/- 0,5%
Maximum working pressure	100 bar	100 bar	30 bar	100 bar
Communications	CAN bus	CAN bus	CAN bus	CAN bus
U·meter+, models with Bluetooth® Part No.	383 514	383 526	383 523	383 521

Only for connection with U·dat, U·valve, or an adjacent U·meter. Requires a 24 V DC solenoid valve.

	381 513	383 514	383 525	383 526	383 522	383 523	383 520	383 521
A (mm)	86	86	86	86	86	86	86	86
B (mm)	96	96	96	96	96	96	96	96
C (mm)	70	86	101	117	73	86	70	86

"Plus" version
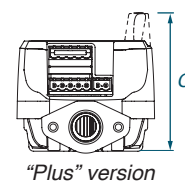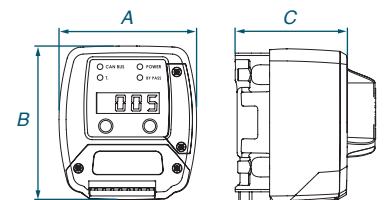
Ucount   Upulser⁺   Upulser

U·count

U·count Fluid control module includes a high visibility LED display and the software required to control any U·pulser or U·pulser⁺ with the rest of the NEX·U·® system components. The LED display shows the U·valve number assigned in the system and four colour LED lights show the operation of the valve for diagnosis and two buttons for system configuration.

U·count supports CAN bus hard wired communication that transmits data and power required to open the solenoid valve, Wi-Fi® for data communication with other system components and Bluetooth® to communicate with a U·Vision or U·Vision⁺ handle.

U·pulser⁺ meter

U·pulser⁺ High accuracy line pulse meter module combined with a 24 V solenoid valve and an inlet filter screen. Reduces installation time and eliminates the risk of leaks when using separate components. Equipped with fast connection in/out CAN bus terminals. Only for connection to a U·count module. This meter does not have a display or function buttons.
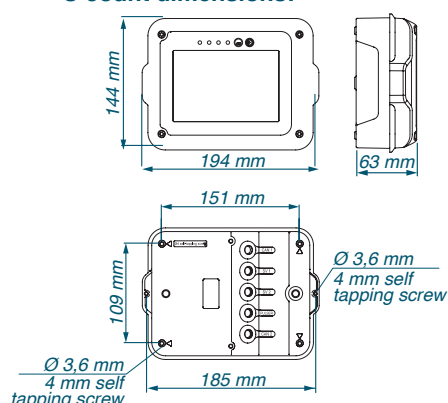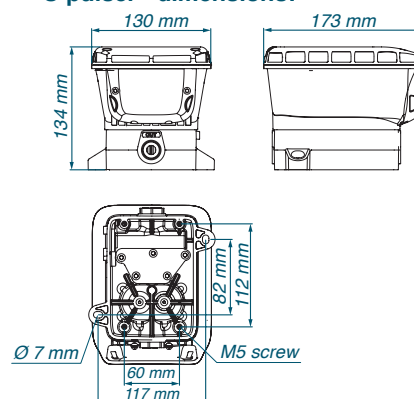
U·pulser meter

U·pulser High accuracy line pulse meter. Equipped with connection terminal and valve open indication light. Only for connection to a U·count module. This meter does not have a display or function buttons and requires a 24 V DC solenoid valve.

U·count dimensions:

144 mm
194 mm
63 mm
151 mm
109 mm
Ø 3,6 mm
4 mm self
tapping screw
Ø 3,6 mm
4 mm self
tapping screw
185 mm

U·pulser⁺ dimensions:

130 mm
173 mm
134 mm
82 mm
112 mm
Ø 7 mm
M5 screw
60 mm
117 mm

ORDERING INFORMATION

U·count	383 750			
Description	Fluid meter and solenoid valve controller includes Bluetooth®, Wi-Fi® and CAN bus communications			

U·pulser⁺	383 502			
Description	Pulse meter: Solenoid valve and filter compact unit Wetted parts: Aluminium, NBR, stainless steel, acetal Applications: Lubricants, antifreeze solutions Connection threads: 1/2" BSP (FF) Flow range: 1 - 30 l/min Pulses per litre: 328 Accuracy: +/- 0,5 % Maximum working pressure: 100 bar			

U·pulser meter	366 050	366 057	366 053	366 055
Wetted parts	Aluminium, NBR, stainless steel, acetal	Aluminium, NBR, stainless steel, acetal	PVC, Vectra®, stainless steel, Viton®	Stainless steel, Vectra®, Viton®
Applications	Lubricants, antifreeze solutions	Lubricants, diesel	DEF / AdBlue®, windshield wash and antifreeze solutions	DEF / AdBlue®, windshield wash and antifreeze solutions
Connection threads	1/2" BSP (FF)	3/4" BSP (FF)	1/2" BSP (FF)	1/2" BSP (FF)
Flow range	1 - 30 l/min	8 - 80 l/min	1 - 50 l/min	1 - 50 l/min
Pulses per litre	328	109	320	320
Accuracy	+/- 0,5 %	+/- 0,5 %	+/- 0,5 %	+/- 0,5 %
Maximum working pressure	100 bar	100 bar	30 bar	100 bar

TANK LEVEL
MONITOR MODULE

Provides real-time inventory control, reducing worries about running out of inventory or used fluid tanks overflow.

U·tank
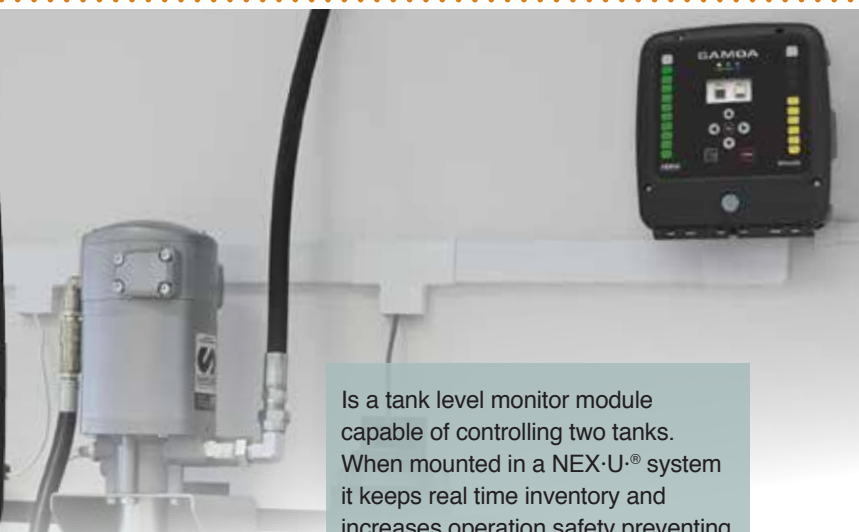
Is a tank level monitor module capable of controlling two tanks. When mounted in a NEX·U·® system it keeps real time inventory and increases operation safety preventing air entering pumps when the tank is empty and overflow during clean oil delivery and in waste oil storage tanks. It can also be used to control the general air supply to the pumps.

U·tank has two independent graphic displays and level bars, each of them shows the inventory available in each tank. It also has a set-up keypad for inventory adjustment if required [1].

The number of input and output ports are:
• One analogical input per tank for a pressure probe with 4-20 mA or 0-10V.
• Three digital inputs per tank for a low, intermediate or high-level probe [1].
• One output per tank for a solenoid valve to control air supply to each pump.
• One output per tank for an electro-pneumatic valve to prevent tank overfill.
• One output for controlling an air solenoid valve to stop the air supply to all pumps during the time the workshop is closed.
• One output for controlling a flash warning light or an acustic alarm.

U·tank supports CAN bus wired and Wi-Fi® wireless communication with other NEX·U·® system components. It requires a 110 -240 V AC supply.

[1] *The use of digital probes does not allow real-time inventory monitoring. NEX·U·® will use declining balance for inventory control and will require manual inventory adjustment.*
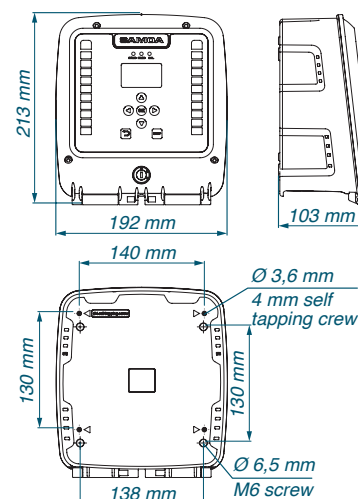
ORDERING INFORMATION

Part No.	Description
383 100	U·tank tank monitoring module. Can control up to two tanks. Supports CAN bus and Wi-Fi® communications. 110 - 240 V

Product specifications are subject to change without prior notice

NEX·U·® MOBILE

Fluids in service trucks present similar control issues than those in any service centre.

NEX·U·® MOBILE allows fluid inventory and usage control in mobile service trucks.

A special U·dat keypad module, which includes the software required to work as an autonomous operation, can control a maximum of 8 fluid outlets. U·dat would store all transaction data until the truck arrives to its base and it connects, using Wi-Fi®, to the U·track system. If Wi-Fi® is not available, transaction data can be saved to a USB memory stick and stored in Excel® format.

NEX·U·® MOBILE requires solenoid valves able to work at 12 V DC. A special U·valve, equipped with a 12 V solenoid valve is a available.

Standard U·meter and U·meter+ are compatilble with NEX·U·® MOBILE as long as they are connected to a 12 V DC solenoid valve.

Standard U·vision, hand held display, and U·view, remote display, are compatible with NEX·U·® MOBILE.

ORDERING INFORMATION

| Part No.	Description
383 012	NEX·U·® MOBILE keypad.
383 530	U·valve-12, U·valve module with 12 V DC solenoid valve. Includes Bluetooth® communication to a U·view hand held display.
389 018	12 V 1/2" solenoid valve for lubricants.
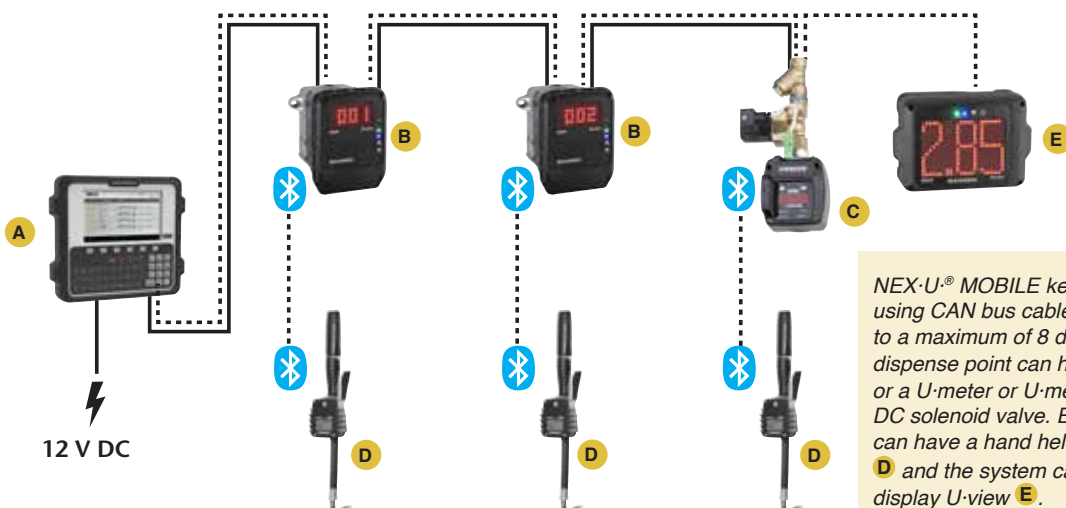
*NEX·U·® MOBILE keypad **A**, connects using CAN bus cable (power and data) to a maximum of 8 dispense points. Each dispense point can have a U·valve-12 **B** or a U·meter or U·meter+ **C** with a 12V DC solenoid valve. Each dispense point can have a hand held display U·vision **D** and the system can include a remote display U·view **E**.*

12 V DC

NEX·U·® COMPACT

NEX·U·® also offers solutions to smaller shops. NEX·U·® COMPACT is a simple system that includes a special U·dat keypad and is able to control a maximum of 8 dispensing points.

The Keypad includes a 7" colour screen and a simplified version of the U·track software. The software included provides smaller workshops with:

- Full control of bulk stored fluid usage
- Inventory control using declining balance method. NEX·U·® COMPACT will give a warning sign once a certain inventory is reached, not giving access to those outlets that have run out of inventory.
- Generate full reports in Excel format that can provide useful management information.
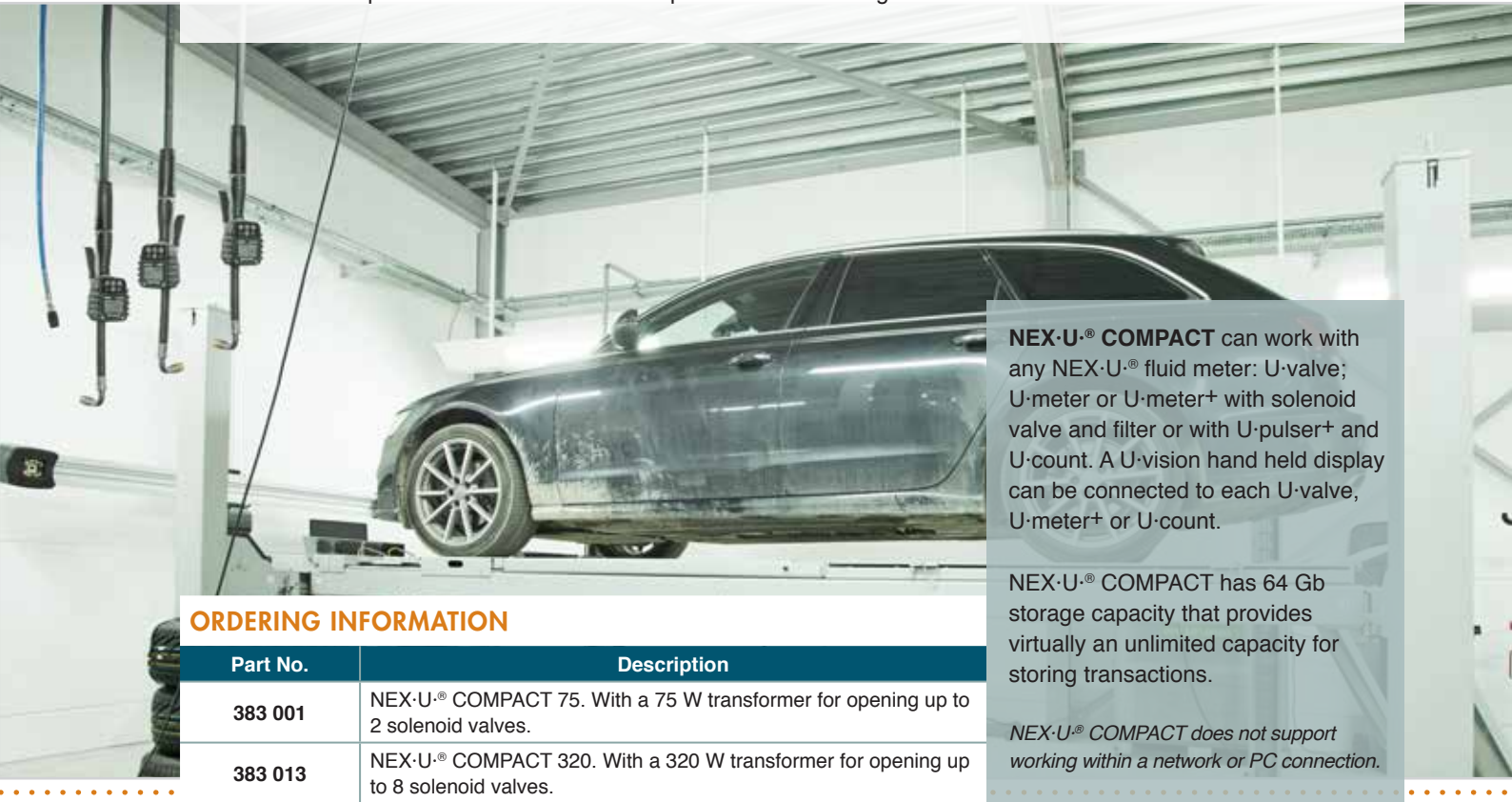
NEX·U·® COMPACT can work with any NEX·U·® fluid meter: U·valve; U·meter or U·meter+ with solenoid valve and filter or with U·pulser+ and U·count. A U·vision hand held display can be connected to each U·valve, U·meter+ or U·count.

NEX·U·® COMPACT has 64 Gb storage capacity that provides virtually an unlimited capacity for storing transactions.

NEX·U·® COMPACT does not support working within a network or PC connection.

ORDERING INFORMATION

Part No.	Description
383 001	NEX·U·® COMPACT 75. With a 75 W transformer for opening up to 2 solenoid valves.
383 013	NEX·U·® COMPACT 320. With a 320 W transformer for opening up to 8 solenoid valves.

110 - 240 V
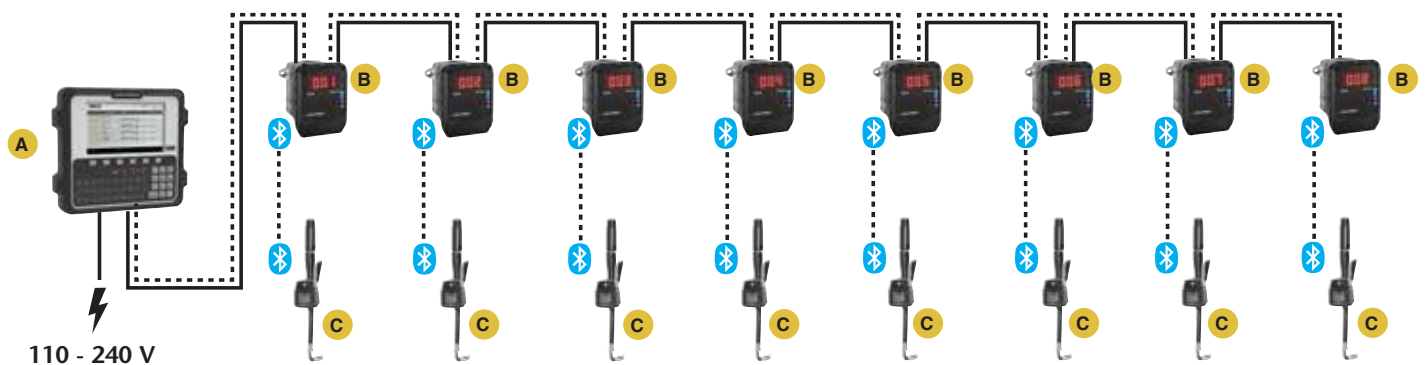
NEX·U·® COMPACT keypad **A** *can control 8 dispense points (model with 320 W transformer) or 2 dispense point (model with 75 W transformer). Each dispense point* **B** *can include a U·valve, a U·meter or U·meter+ with solenoid valve combination or a U·pulser+ and U·count combination. A U·vision hand held display* **C** *can be connected to each fluid outlet using Bluetooth® communications.*

NEX·U·®
ACCESSORIES

U·METER AND
SOLENOID VALVE KITS

U·meter and solenoid valve kits include the high precision U·meter or U·meter⁺
meter, solenoid valve and Y-strainer.

Part No	Application	Pulse meter	Solenoid valve	Y-strainer
383 550	Lubricants, antifreeze solutions	U·meter 381 513	389 001	950 372
383 551	Lubricants, antifreeze solutions	U·meter⁺ 383 514	389 001	950 372
383 552	High delivery lubricants, antifreeze solutions	U·meter 383 525	381 509	950 373
383 553	High delivery lubricants, antifreeze solutions	U·meter⁺ 383 526	381 509	950 373
383 554	Diesel	U·meter 383 525	389 003	950 374
383 556	DEF / AdBlue®, windshield wash (low pressure)	U·meter 383 522	389 004	950 372
383 557	DEF / AdBlue®, windshield wash (low pressure)	U·meter⁺ 383 523	389 004	950 372

SOLENOID VALVES

NEX·U·® requires 24 V DC, normally closed solenoid valves to operate. U·valve,
U·valve⁺ and U·pulser⁺ include a solenoid valve. For other metering elements,
a solenoid valve compatible with the fluid and the application requirements
must be used.

389 001   **381 509**   **389 021**

Part No.	Application and wetted materials	Connection threads	Voltage	Type	Max. Working pressure
SOLENOID VALVES FOR FLUIDS					
389 001 [1]	Oil and antifreeze solutions. Brass and NBR	1/2" BSP (F)	24 V DC	N.C.	50 bar
381 509 [2]	Oil and antifreeze solutions. Brass and NBR	1/2" BSP (F)	24 V DC	N.C.	40 bar
389 003	Diesel and antifreeze solutions. Brass and NBR	1" BSP (F)	24 V DC	N.C.	20 bar
389 004	DEF / AdBlue®; antifreeze and windshield wash solutions, stainless steel and EPDM	1/2" BSP (F)	24 V DC	N.C.	10 bar
389 021	Electro-pneumatic valve. Prevents over fill of waste fluid tanks. Brass and NBR	1-1/2" BSP (FF) for fluids 1/4" BSP (FF) for air	24 V DC and 1-4 bar compressed air	N.O.	10 bar
SOLENOID VALVES FOR COMPRESSED AIR – PUMP CONTROL					
389 012	Compressed air. Brass and NBR	1/4" (F)	24 V DC	N.C.	10 bar
389 019	Compressed air. Brass and NBR	1/4" (F)	24 V DC	N.O.	10 bar
389 016	Compressed air. Brass and NBR	1/2" (F)	24 V DC	N.C.	10 bar

N.C.= Normally closed
N.O.= Normally open
(1) for use in standard delivery applications, with a 1/2" U·meter
(2) for use with higher delivery applications, with a 3/4" U·meter

Y STRAINERS

Stainless steel Y strainers. 40 bar working pressure.

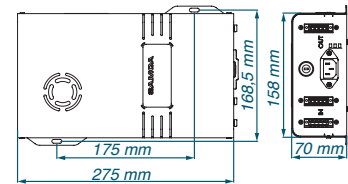| Part No.	Description
950 372	1/2" BSP (FF) Y strainer.
950 373	3/4" BSP (FF) Y strainer.
950 374	1" BSP (FF) Y strainer.

950 373

U·power

Power supply to solenoid valves and other system components. U·power connects using CAN bus cable to a U·valve, U·valve+, U·meter, U·meter+, U·count or U·view whenever the power supplied by a U·dat keypad is not present.

Part No.	Description
383 151	U·power. Power supply unit with a 75 W transformer for use with 2 solenoid valves.
383 150	U·power+. Power supply unit with a 320 W transformer for use with 8 solenoid valves.

383 150

168,5 mm · 158 mm · 175 mm · 275 mm · 70 mm

BAR CODE READER

Part No.	Description
381 901	Bar code laser reader. Reads any one dimensional code. For use with a U·dat, U·dat Power+ and U·dat for NEX·U·® MOBILE and COMPACT systems.

381 901

CABLE

3082A 15/18AWG communication and power CAN bus cable.

Part No.	Description
381 950	1 m CAN bus cable.

Part No.	Description
381 957	Jumper cable. 0,5 m cable with prewired connectors 381 908 for connecting adjacent elements with a CAN bus cable.

Part No.	Description
381 908	In/out electrical connectors. For use with U·valve, U·valve+, U·meter, U·meter+, U·pulser+, U·count, U·view, U·tank and U·net.

381 957

381 908

TANK MONITORING ACCESSORIES

Part No.	Description
382 120	Tank level pressure gauge. Allows real-time monitoring of the volume in a tank. Tank maximum depth 350 cm.

Part No.	Description
382 201	Digital level gauge. Detects maximum, minimum or an intermediate volume in a tank. Does not allow real-time monitoring. Height adjustable, includes 5 m cable.

Part No.	Description
382 005	Remote flash and acoustic alarm.

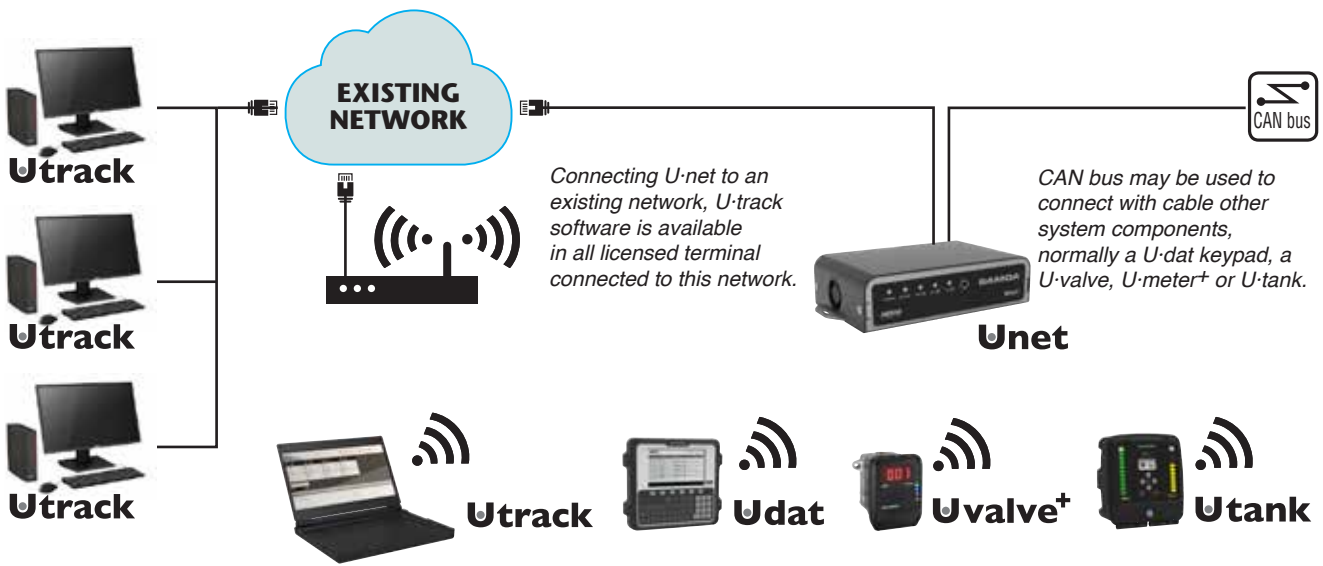**382 120**

382 201

382 005

CREATING A
WIRELESS NETWORK

There are two ways for creating a wireless network:
• Using an existing Wi-Fi ® network. Requires access to existing wireless network credentials.
• Creating a dedicated Wi-Fi® network. New wireless credentials are created for this network.
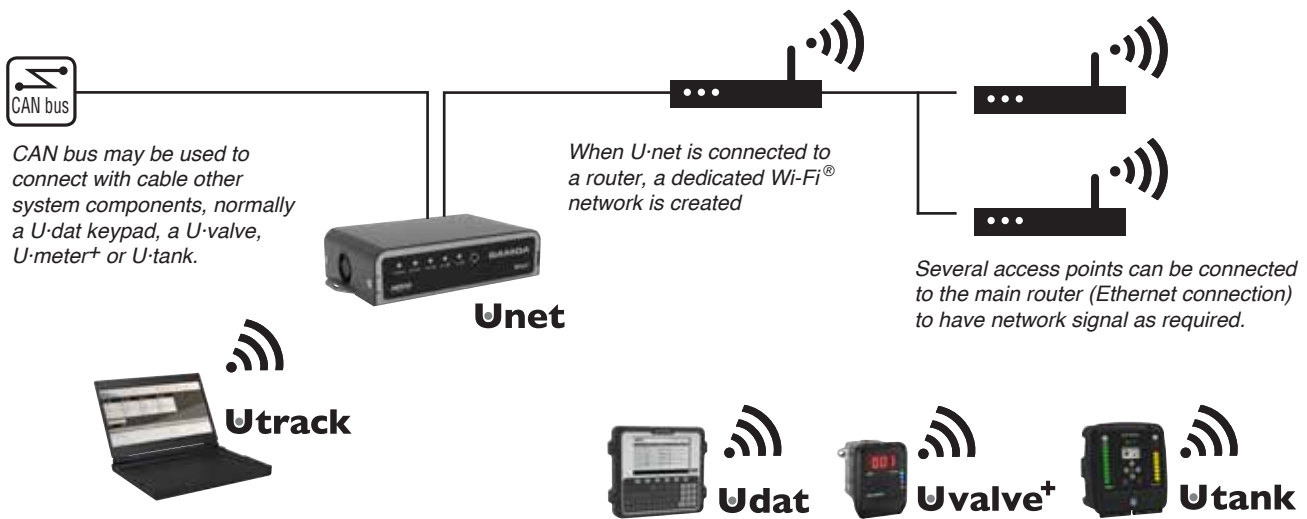In both cases IP addresses, network and default gateway, are required. The key component is U·net.

USING AN EXISTING NETWORK. . . . .

EXISTING NETWORK

CAN bus

Utrack

Utrack

Utrack

Connecting U·net to an existing network, U·track software is available in all licensed terminal connected to this network.

CAN bus may be used to connect with cable other system components, normally a U·dat keypad, a U·valve, U·meter+ or U·tank.

Unet

Utrack

Udat

Uvalve+

Utank

If the network uses Wi-Fi®, NEX·U·® components with Wi-Fi® can connect to the network via Wi-Fi®. Additionally, other licensed terminals (Laptops, tablets, Smartphones) can have access to U·track.

CREATING A NEW NETWORK. . . . .

CAN bus

CAN bus may be used to connect with cable other system components, normally a U·dat keypad, a U·valve, U·meter+ or U·tank.

When U·net is connected to a router, a dedicated Wi-Fi® network is created

Unet

Several access points can be connected to the main router (Ethernet connection) to have network signal as required.

Utrack

Licensed terminals (PC's, tablets, Smartphones) can connect to the NEX·U·® network and have access to the NEX·U·® system through U·track.

Udat

Uvalve+

Utank

NEX·U·® components can connect to the NEX·U·® wireless network for data communication among them.

NEX·U·®
CONNECTABILITY

NEX·U·® provides maximum flexibility in the way the user interact with the system, the most effective connection method and enhanced reporting capability.
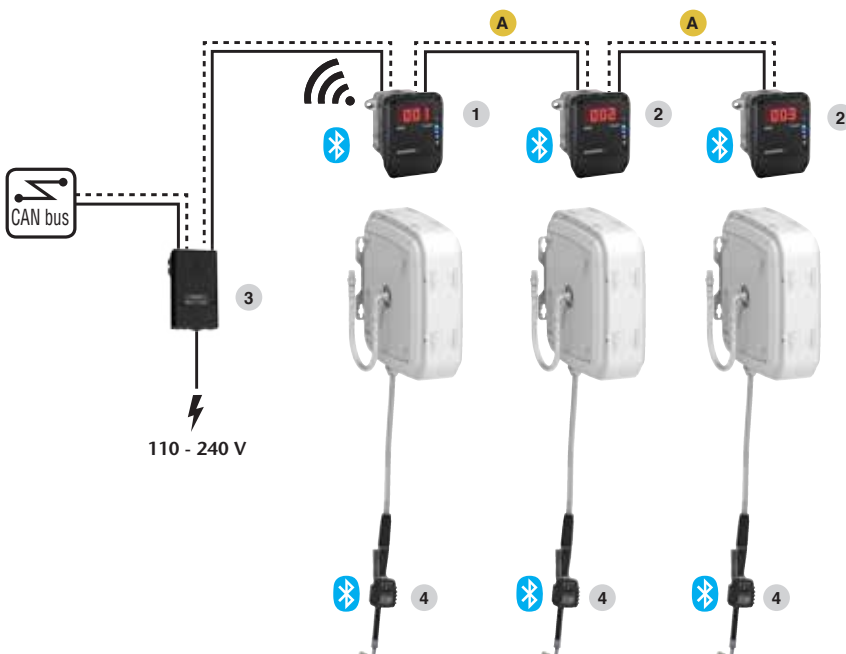
ACCESS THROUGH U·dat
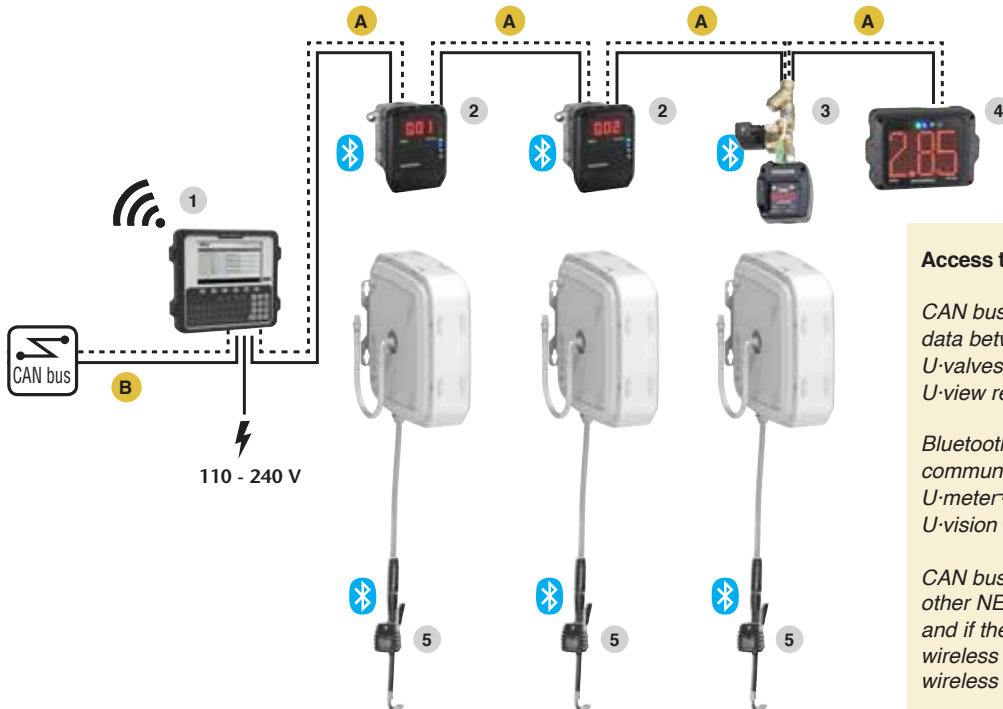
Access through U·dat

CAN bus cable **A** *, transmits power and data between the U·dat keypad* **1** *, the U·valves* **2** *, the U·meter+* **3** *and the U·view remote display* **4** *.*

Bluetooth® connection is used to communicate each U·valve **2** *and U·meter+* **3** *with its corresponding U·vision* **5** *hand held display.*

CAN bus cable **B** *communicates with other NEX·U·® components. Alternatively, and if the keypad* **1** *, is connected to the wireless network, data can be transmitted wireless by to other NEX·U·® components.*

ACCESS THROUGH U·vision+

Access through U·vision+

Power and Data are transmited using CAN bus cable **A** *between the U·valve+* **1** *and the other U·valves* **2** *. Power to energize the solenoid valves is supplied by the U·power* **3** *, connected to U·valve+* **1** *.*

Each U·valve+ **1** *and U·valve* **2** *is connected to its corresponding U·vision+* **4** *, hand-held display and systems access Keypad.*

Wireless data transmission is done by U·valve+ **1** *.*

NEX·U·®
CONNECTABILITY

PC - LAPTOP CONNECTION ·
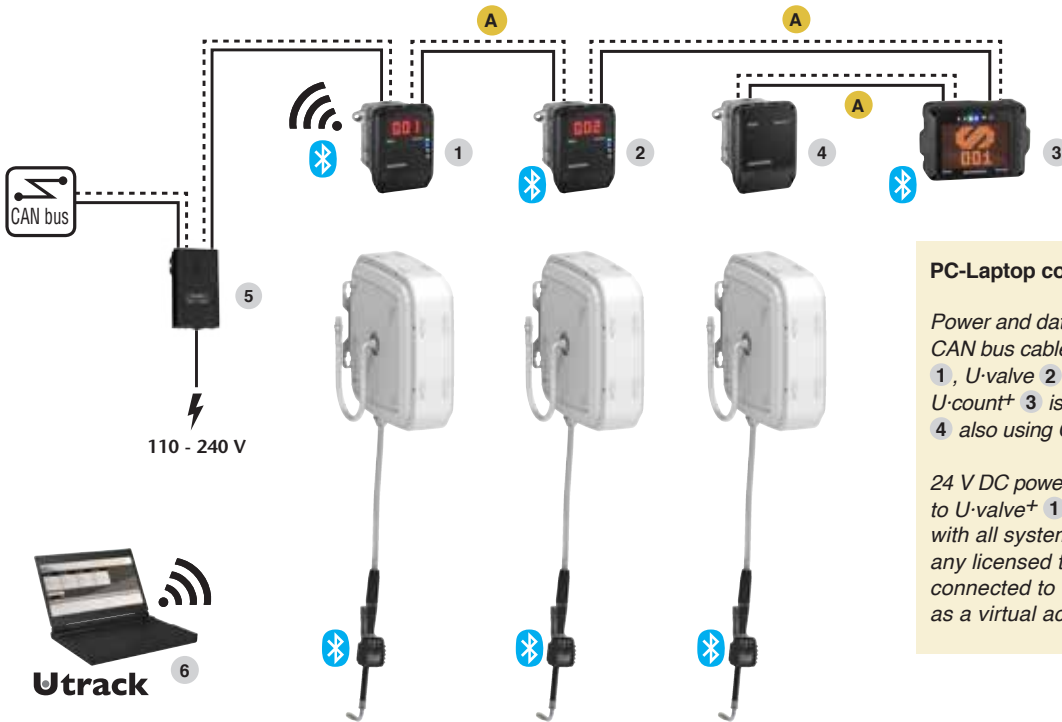

PC-Laptop connection

Power and data are transmitted using CAN bus cable **A** *between the U·valve⁺* **1** *, U·valve* **2** *and U·count⁺* **3** *. U·count⁺* **3** *is connected to U·pulser⁺* **4** *also using CAN bus connection.*

24 V DC power is supplied by U·power **5** *to U·valve⁺* **1** *connects using Wi·Fi®️ with all system components, including any licensed terminal* **6** *that is connected to U·track and can be used as a virtual access keypad.*

TANK MONITORING.. ·
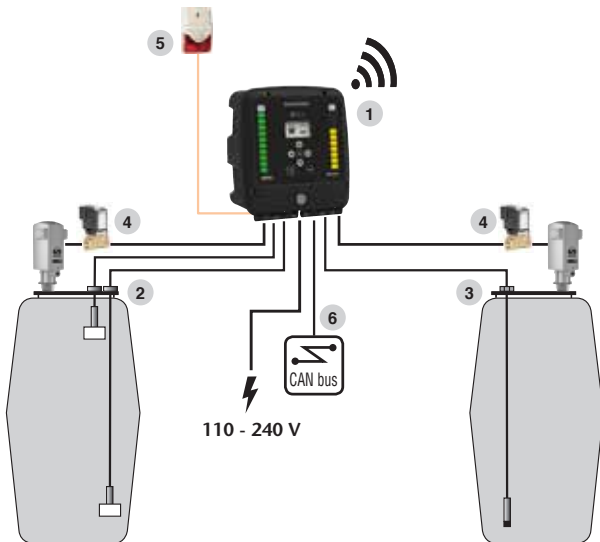
CAN BUS FAST CONNECTION.......

U·dat, U·valve, U·meter, U·count, U·tank and U·net use in/out CAN bus fast connectors that make cabling easier, faster and prevent disconnections.

U·tank **1** *can monitor up to two tanks. Each tank can be fitted with low and high level sensors* **2** *or with a pressure gauge* **3** *for real-time control of the inventory in the tank. U·tank* **1** *can also control pump operation opening or closing an air solenoid valve* **4** *that prevents pump running dry or air entering the oil distribution lines if there is no oil in the tanks.*

U·tank **1** *can also control a remote flash light or siren* **5** *to anounce when any tank is empty. U·tank* **1** *can communicate with other NEX·U·®️ elements using Wi·Fi®️ or through CAN bus* **6** *wired connection.*

SAMOA

LEADING THROUGH INNOVATION
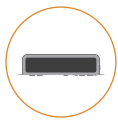
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