



AB SVEJSETEKNIK ApS



DATA TRANSMISSION & SOFTWARE

In the modern technical world, the capability of measuring instruments is not limited to the display of measured values.

New tasks are now requested and required to meet the era of Industry 4.0 and the Internet of Things.

A wide choice of connection cables, pioneering wireless transmission technologies as well as new functionalities provide compatibility with most data management and data acquisition systems

RS232, USB or Bluetooth® wireless technology data output



Data transmission and softwares

CONNECTIONS

What is the future for metrology?

The arrival of a new era for industrial production with the widely discussed concepts of “Industry 4.0”, «Internet Of Things” and “Smart Manufacturing” will require new tools capable of interconnectivity and interoperability. Very soon it will become compulsory for many companies to collect data produced by the different elements in the manufacturing chain.

Traditional metrology will evolve towards more automation and digital (paperless) solutions which will enable increased traceability and remote monitoring of a whole set of information centralised on one server.

Sylvac is ready for the challenge!

Sylvac had already committed to digital and to data transfer without waiting for the current excitement! In fact, several decades ago we proposed a full range of instruments to our clients for simple and reliable interconnectivity. After the cable connections (RS232 then USB) we are proud that we focused our efforts on the technological progress of the wireless transmission of values. By equipping most of our hand-held instruments with a wireless Bluetooth® transmitter integrated into the electronics, Sylvac has been a genuine pioneer in this area, demonstrated by the fact that we are currently the only company able to offer a solution with Bluetooth® Wireless technology that meets the challenges of the future – and for the price of a cable connection!

The advantage of our instruments with Bluetooth® Wireless technology

Wireless connectivity provides greater freedom of action and more flexibility for the operator requested to execute measurements. New solutions can also be implemented for controlling components using specific instruments or positions. Here are some of the highlights:



- The solution is totally integrated into the instrument
The wireless Bluetooth® transmitter is fixed on the electronic chart of the instrument and no further accessory is required. The Sylvac instrument with Bluetooth® Wireless technology that you receive is ready to be connected. Most of our competitors claim to offer wireless solutions, which are not really wireless solutions, or which require an external element to be acquired which is often fragile and costly! Our integrated system also has the advantage of not being sensitive to liquids or dirt.



- Transmission distance
The maximum distance between the instrument and the peripheral device receiving the values is generally between 5 and 15 meters, depending on the configuration of the premises and any potential disruptive influences. Given that a wired USB connection is limited to 7 meters, the transmission range of our instruments with Bluetooth® Wireless technology is therefore greater than wired connections most of the time!



- Autonomy
Sylvac’s technological achievement was to offer a solution with energy-efficient Bluetooth® Wireless technology so that our instruments powered by a standard lithium battery could remain connected and used for several weeks, even several months. This was achieved thanks to our patented measurement system (Sylvac System) which only needs minimum energy. On request our agent can give you an estimate of the battery service life of your instrument taking your specific usage conditions into account.

Data transmission and softwares

CONNECTIONS



- Duplex Transmission
 Sylvac instruments are currently the only instruments able to communicate bidirectionally by Bluetooth® Wireless technology with the peripheral to which they are connected. This means that they can both send values and information and receive and interpret them. The best example of this is the transmission from the computer of a zero reset command for the instrument. This ensures the synchronisation of the value displayed on the instrument and on the peripheral device in order to limit the risks of error.
- Freedom of action at the price of a wired connection
 One important factor to consider when selecting an instrument is of course its price! Our Sylvac instruments with Bluetooth® Wireless technology also offer, as well as the features listed above, the benefit of not costing more than a traditional wired digital instrument. Therefore they can be used everywhere as replacements for wired instruments.

How to connect our instruments with Bluetooth® Wireless technology

Flexibility is one of the watchwords that characterise our Sylvac instruments with Bluetooth® Wireless technology. They can be connected to a computer running Windows, to our D300S and D400S display units and to a Smartphone or Apple or Android tablet. This is how to connect them:



- Connection to a computer
 There are different requirements depending on the instrument and the Windows operating system running on your computer. The most reliable solution is to attach a Sylvac Bluetooth® dongle to your computer which can connect up to 8 instruments. The most recent instruments also have a Human Interface Device (HID) direct communication mode enabling them to connect to a computer as a peripheral keyboard and transmit the values in any software application. (Use without dongle with Windows 10 possible with Sylcom)
- Connection to our multi-functional display units
 Our D300S display unit can be fitted with a Sylvac Bluetooth® dongle in order to connect up to 8 Sylvac Bluetooth® instruments. The same applies to the D400S unit to which one or several (up to 12) M-Bus BT modules can be connected enabling a multitude of Sylvac Bluetooth® instruments to be connected to it.
- Connection to a smartphone or tablet
 Our instruments can be connected directly to a smartphone and to tablets running Android or iOS. Sylvac demonstration apps are available from the Google Store and the Apple Store. These apps demonstrate the connection of one of our instruments with Bluetooth® technology to one of these peripheral devices. As this area is evolving very rapidly, please refer to our website for the latest information.

Data transmission and softwares

CONNECTIONS



- Wired Connections

Despite all the benefits described above, it could be that Bluetooth® Wireless technology is not the most appropriate solution for a specific application. We are of course able to provide a connection cable fitted either with an RS232 or USB connector for every Sylvac instrument with a data output. Our standard cables are 2 or 3 meters in length depending on the models. On request they can be delivered in special lengths of up to 15 metres for RS232 cables and up to 5 metres for USB cables.

Use of a digital test indicator without its battery

In some cases, as for example when a digital test indicator is installed in a location that is difficult to access, or if it is fitted on a non-stop operating machine, it may be advisable to replace the battery of the instrument with a special cable (Power) which will ensure both its power supply and the data transfer. Most of our digital test indicators offer this option and they are identified by the Power logo.



Please refer to the chapter on cables for details on the different cables available.

Other digital test indicators, intended for connection to programmable logic controllers (PLC) also operate without a battery and their power supply is provided by the controller



Data transmission and softwares

CONNECTIONS



Connection Proximity



Connection RS-485



Connection M8



Bluetooth® Wireless technology with dongle



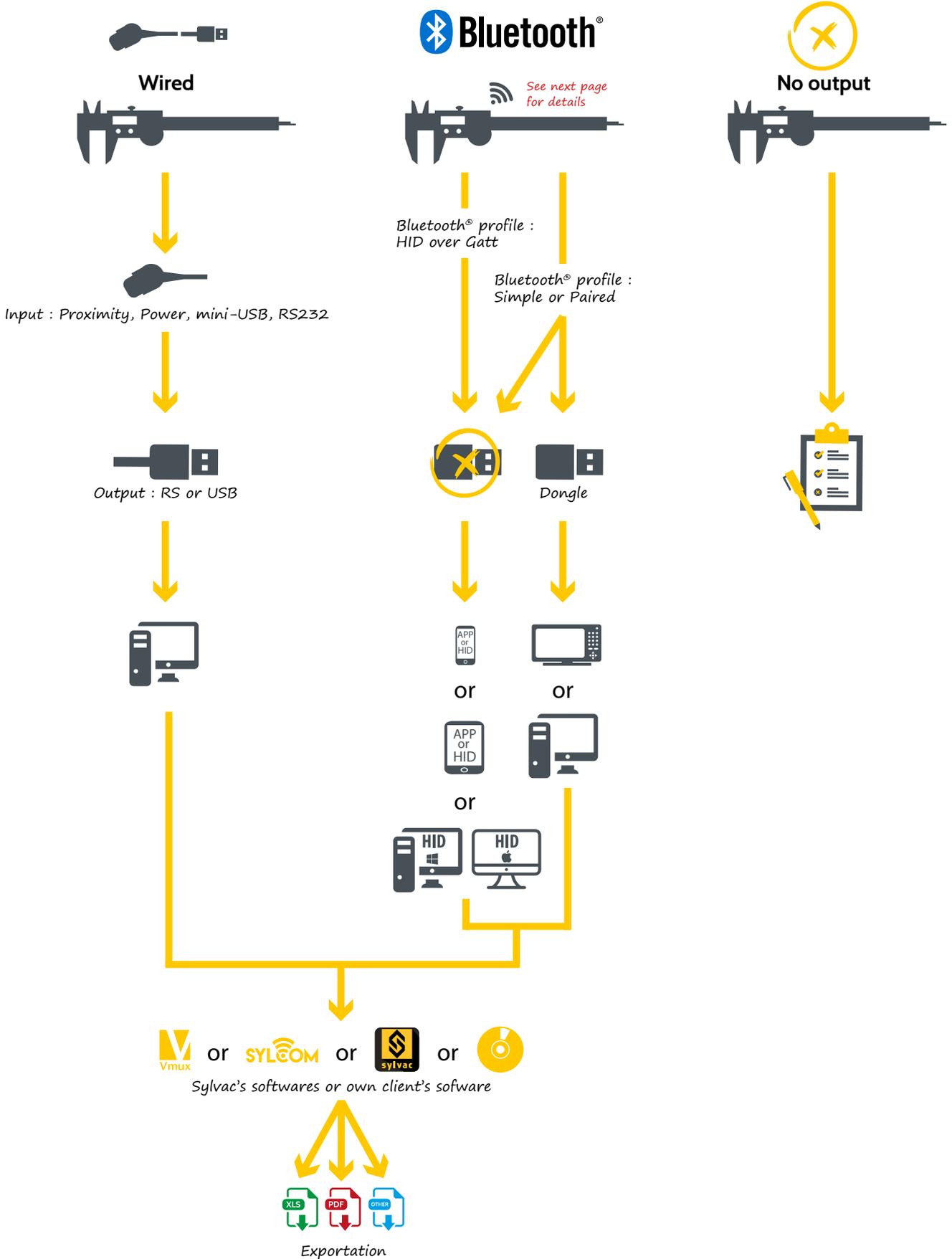
Bluetooth® Wireless technology and USB



Bluetooth® Wireless technology via HID

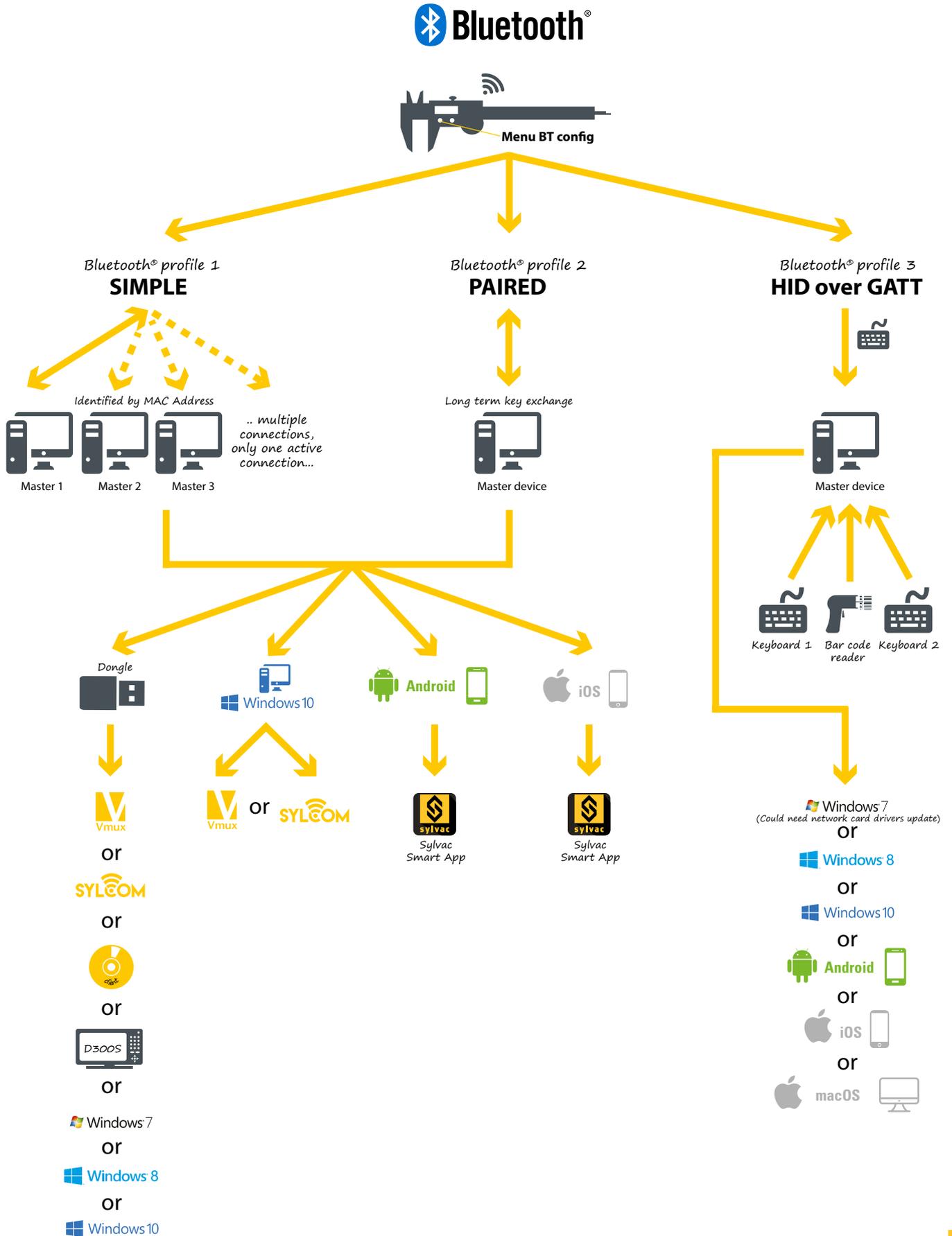
Data transmission and softwares

CONNECTIONS POSSIBILITIES



Data transmission and softwares

WIRELESS CONNECTION PROFILES



Sylvac softwares

DATA TRANSFER

SYLCOM

Sylcom is the latest software product to be launched by Sylvac and has been designed to process information from instruments connected via Bluetooth® Wireless technology or via a USB cable. It creates an almost limitless number of display channels spread over one or several pages. Several display modes are available so that the status of the variable measured (GO/NG) can be visualised instantaneously. Sylcom can also be used to measure components sequentially, to collect all values simultaneously and to define a time interval in order to save values automatically. The data can be saved in Sylcom and then exported to an Excel file.

The concept is to offer a modular software application based on the specific functionalities required.

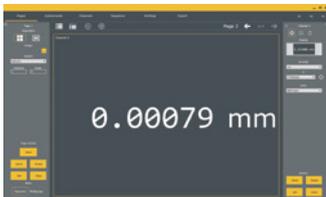


Free Sylcom LITE version on www.sylvac.ch

A free version **Sylcom Lite**, limited to one connection can be downloaded free of charge from our website. The full version of **Sylcom Standard** with the capacity to connect up to 16 instruments and the **Sylcom Advanced** version with the capacity to connect up to 250 instruments (max. 40 instruments with Bluetooth® Wireless technology with advanced functions and connections to M-Bus modules) can be purchased online from our website or from the Sylvac distributor in your country. Further modules will be available in the future to expand the possible uses of Sylcom.

Your metrology partner for the new challenges ahead!

We hope that all the information described above has convinced you that Sylvac is not only a manufacturer of innovative and high-quality measuring instruments but also the partner you need to help your quality control evolve towards the new industrial model that awaits us.



Channel display



Multi-channel display with colour-coded tolerances



Multi-channel analogue display



Chart display

Softwares SYLCOM

	Order number
Sylcom LITE	FREE
Sylcom Standard (Dongle licence)	981.7132
Sylcom Standard (Digital licence)	981.7129
Sylcom Advanced (Dongle licence)	981.7133
Upgrade Sylconnect to Sylcom*	981.7139

Accessories

	Order number
Dongle Smart	981.7100
USB pedal	926.7020
USB pedal robust	926.7021
Footpedal Smart	926.7022

* contact us to get the procedure for the update

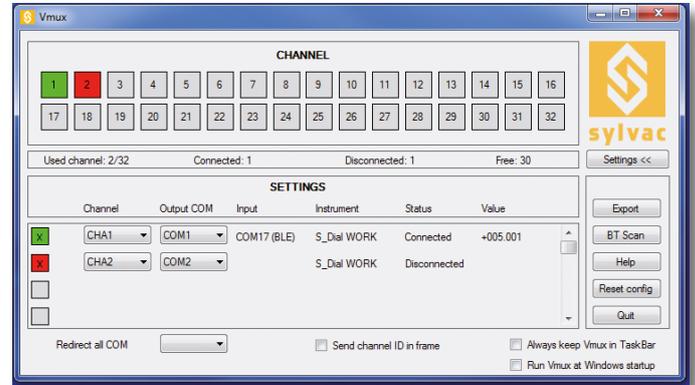
Applications

DATA TRANSFER

Vmux

This software may be considered as a virtual interface which assigns a COM port to instruments connected by wireless Bluetooth® transmission or by USB cable and then redirects the values from these instruments to any Windows software (SPC or other).

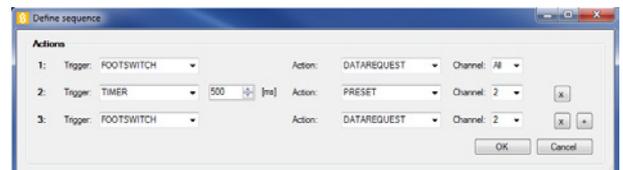
For the simplest applications Vmux simply exports the values into a selectable Excel file. Extremely user-friendly, Vmux is an excellent replacement for the multiplexer boxes used in the past.



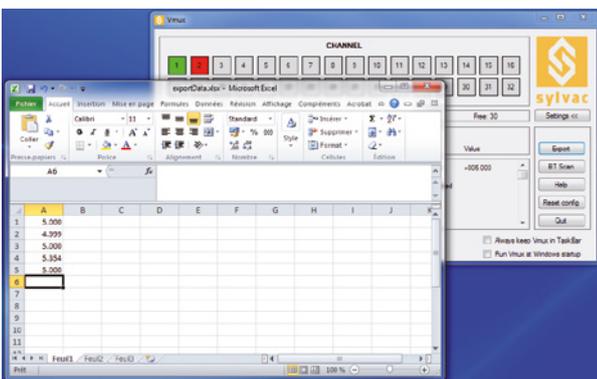
A free version Vmux Lite, limited to one connection can be downloaded free of charge from our website. The full version of Vmux with the capacity to connect up to 32 instruments (max. 16 instruments with wireless Bluetooth® transmission) can be ordered from the Sylvac distributor in your country.



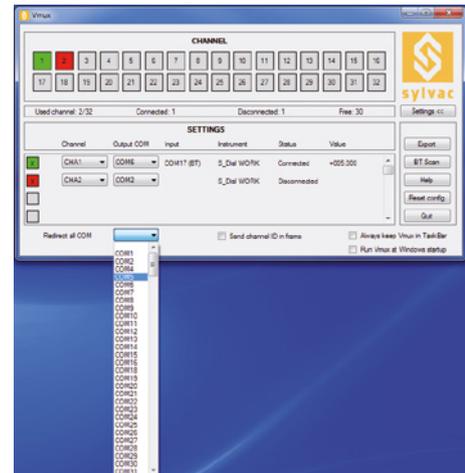
Basic display



Defining a sequence



Exporting data in Excel®



Port COM changing



Softwares Vmux

Order number

Vmux LITE

FREE

Vmux

981.7161

Try the free version Vmux LITE available on our website www.sylvac.ch

Accessories

Order number

Dongle Smart

981.7100

USB pedal

926.7020

USB pedal robust

926.7021

Footpedal Smart

926.7022

A Applications

DATA TRANSFER

Sylvac Smart App Android & Apple

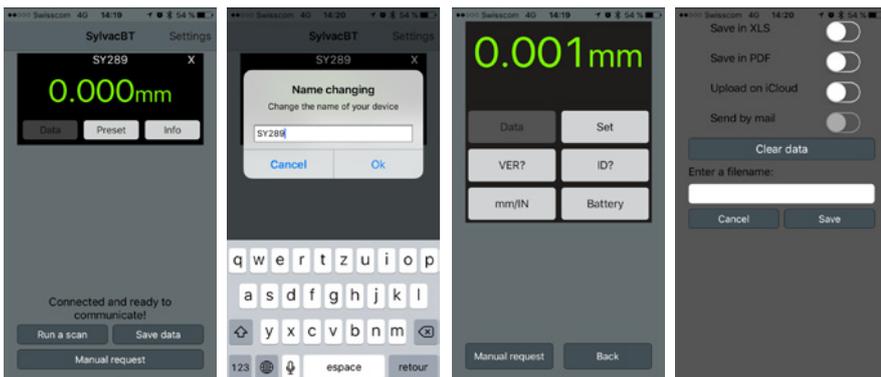
Enables the display of data from instruments with *Bluetooth®* wireless technology on touchpads and smart-phones Android from 4.3 version and Apple from IOS7, equipped with *Bluetooth®* wireless technology.

Ability to save data on the touchpad or smartphone into a PDF or Excel and export the data in Google Drive or iCloud.

Available for free on the Google Play Store and the App Store.



Usable only with Sylvac instruments with Bluetooth® technology in "simple" profile.



Instrument connected

Name changing

Info

Save Data

No dongle required !



Various softwares

OVERVIEW OF SOFTWARE AND FUNCTIONS

	SYLCOM					VMUX	
	LITE	Standard	Advanced Package	PRO Package	Upgrade from Sylconnect	LITE	Standard
		981.7132/29	981.7133	981.7134	981.7139		981.7161
NUMBER OF INSTRUMENTS							
Max. 1	•					•	
Max. 16		•		•	•		
Max. 32							• ¹⁾
Up to 128			• ²⁾				
PLATFORMS							
Windows 7	•	•	•	•	•	•	•
Windows 8.1	•	•	•	•	•	•	•
Windows 10	•	•	•	•	•	•	•
Dongle required for instruments Smart	(•)	(•)	(•)	(•)	(•)	•	•
FUNCTIONS							
Export to ASCII	•	•	•	•	•		
Export to Microsoft Excel®		•	•	•	•		
Immediate export to external program	•	•	•	•	•	•	•
Communication gateway (virtual COM port)						•	•
Display value	•	•	•	•	•	•	•
Display tolerances	•	•	•	•	•		
Analogue display	•	•	•	•	•		
Chart display	•	•	•	•	•		
Multi-channel		•	•	•	•		•
Flatness and advanced formulas			•				
Inspection plan				•			
Statistics				•			
Action sequences		•	•	•	•		
User management	•	•	•	•	•		
Work menu (controlling instrument menus)	•	•	•	•	•		

¹⁾ Max. 32 USB or 16 USB and 16 instruments with Bluetooth® Wireless technology

²⁾ via Mbus (depends on hardware), max. 40 instruments with Bluetooth® Wireless technology (5 dongles)

Wireless transmission

Dongle Smart

DESCRIPTION

- Possibility to connect up to 8 instruments
- Duplex data transmission
- Easy programming
- Individual identification of each instrument with *Bluetooth®* wireless technology
- Confirmation of transmission



TECHNICAL SPECIFICATIONS

		981.7100
USB		•
Coupled instruments per module		8
Automatic detection of instrument		•
Instruments and software compatibility		D300S & SylConnect & Vmux
Transmission distance ¹⁾	m	15

¹⁾ 1 module per instrument is required when used with SylConnect (up to 8 modules)

Wireless transmission

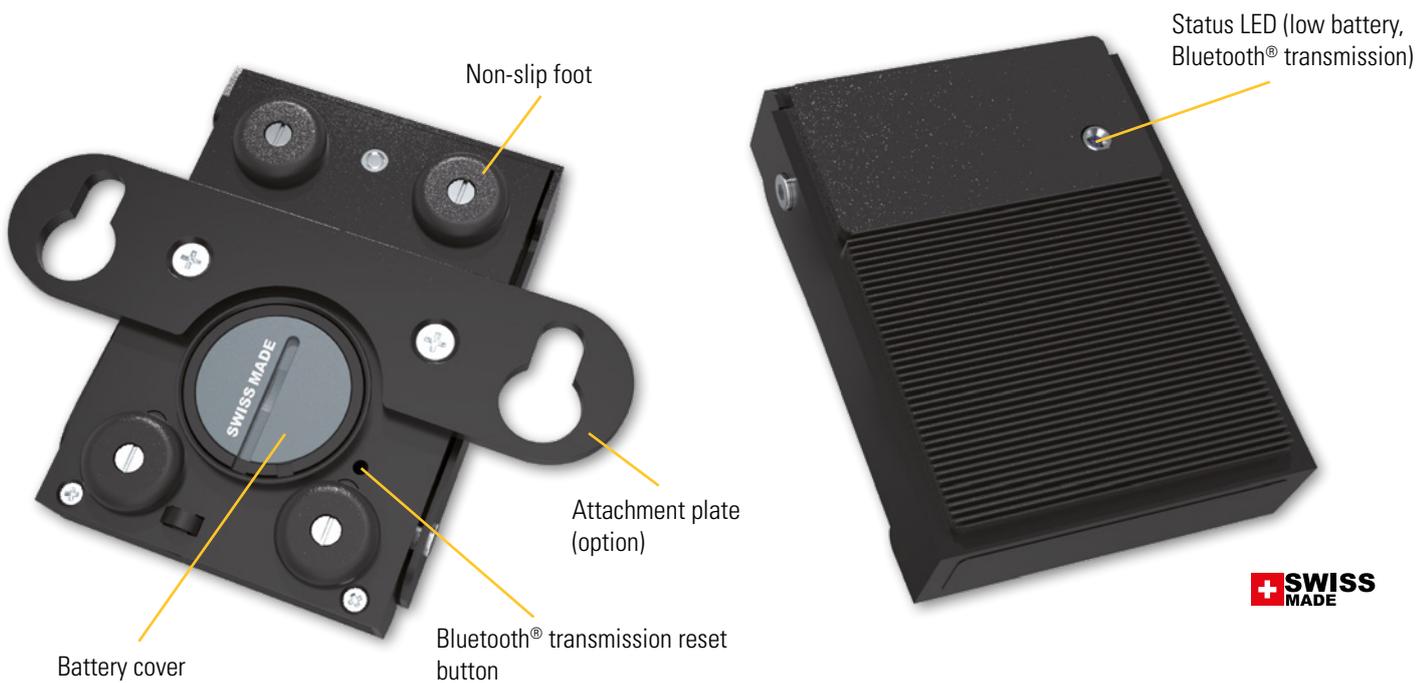
S_Footswitch Smart

A

DESCRIPTION

FOOTPEDAL SMART

- Robust footpedal with Bluetooth® wireless technology
- IP rating IP53
- Battery life : 3 years (Battery CR2477)
- Possibility of triggering sequences from the software Vmux



Dongle with Bluetooth® Wireless technology 981.7100



TECHNICAL SPECIFICATIONS

S_Footswitch Smart		926.7022
Connection		Bluetooth® wireless technology*
Weight	g	260
Software compatibility		Vmux (1.37 and later)
Transmission distance ¹⁾	m	up to 15m

¹⁾ depends on the environment

* Connection with dongle #981.7100

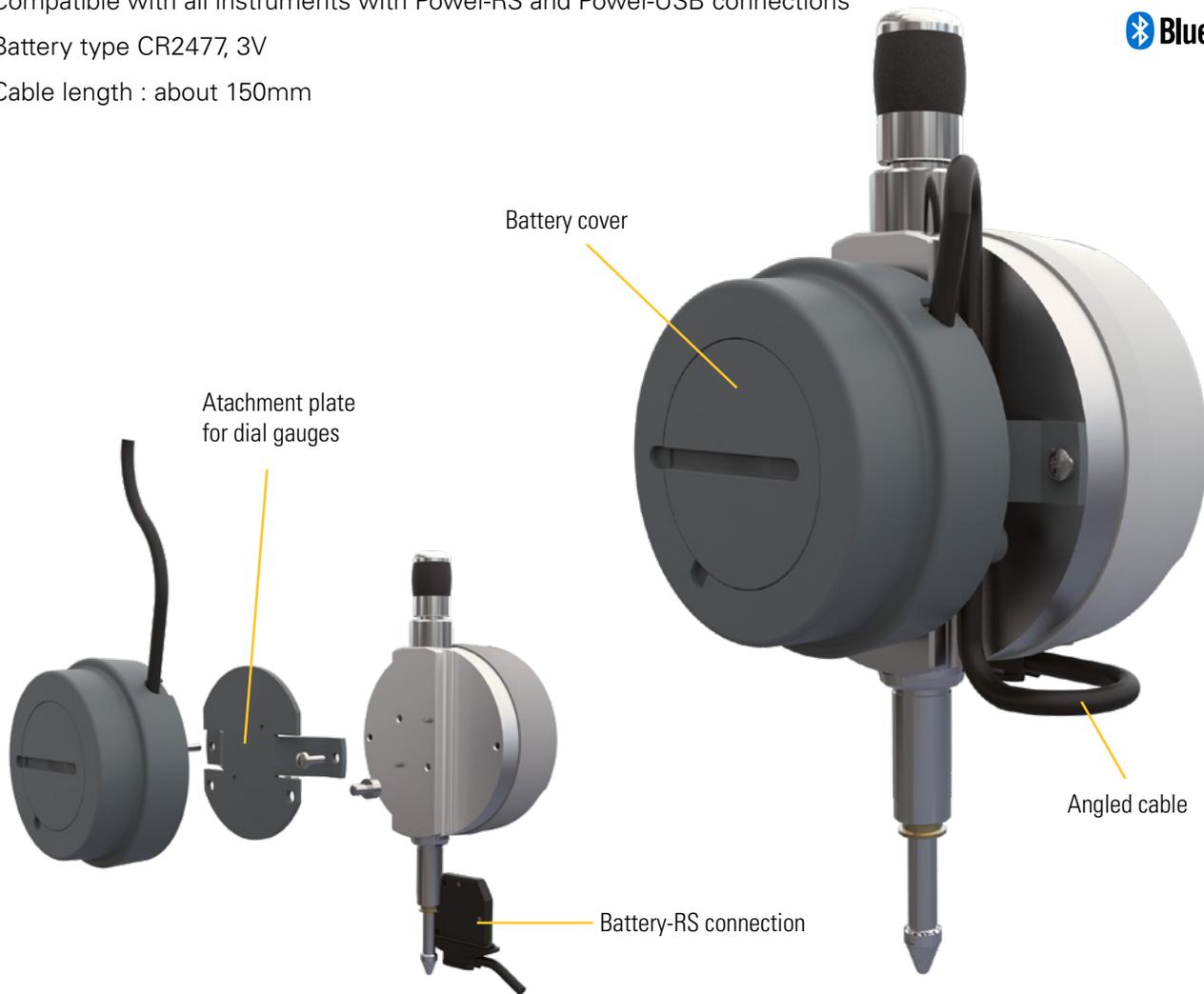
Accessories		926.7023	985.2217
Description		Fixing plate	Adapter for battery CR2032
Weight	g	85	5

Wireless transmission

Battery Pack

DESCRIPTION

- External power-supply for instruments with Bluetooth® wireless technology
- Compatible with all instruments with Power-RS and Power-USB connections
- Battery type CR2477, 3V
- Cable length : about 150mm



TECHNICAL SPECIFICATIONS

Battery Pack		926.7024
Connections		Power-RS / Battery-RS
Weight	g	71.6 (91.4g with attachment plate)
Capacity max.	mAh	1000
Clamping		compatible with dial gauges Ø60mm
Cable length	mm	150

Accessories		985.2217
Description		Adapter for battery CR2032
Weight	g	5

Other

OTHER ACCESSORIES

Order number and compatibilities



Battery CR2032	985.2215 Calipers S_Cal, ultra-light calipers ULX4 ¹⁾ , dial gauges S_Dial (except PLC), micrometers, bore gauges, digital scale S_Scale digital micrometer screws, Feeler Gage, depth gauges S_Depth, Protractor, Hi_Gage, footpedal Smart ¹⁾ and benches table PS16 V2 ¹⁾
Battery CR2477	985.2216 Ultra-light calipers ULX4. benches table PS16 V2, footpedal Smart, Battery Pack

¹⁾ With adapter

A Cables

CONNECTION

Our cables are available in various lengths indicated below.

On request, we can deliver our special length cables, within the following limits:

- RS232 cables: maximum length 15 meters
- USB cable: maximum length 7 meters.

	Standard 2 m	Standard 3 m	Standard 5 m	≤15 m	Bi-directional	Programmable by PC
	926.5521	--	--	926.5535		
	926.6521	--	--	926.6535	●	
	926.6538	--	--	926.6542	●	
	926.6539	--	--	926.6543	●	
	926.6621	--	--	1)	●	
	--	905.4516	--	905.4519	●	
	--	905.4538	--	1)	●	
	--	926.6821	--	1)	●	
	--	926.6838	--	1)	●	
	--	--	926.6101	--	--	--

¹⁾ Maximum 7m (Standard 5m)

Cables

S_Connect

A

CONNECTION

S_Cal Pro / S_Mike Pro	S_Cal Work, Ultra UL 3	S_Depth PRO S_Scale WORK	Protractor	S_Dial S233 / S234	S_Dial ONE / S_Dial WORK S_Dial PRO / Hi_Gage ONE	Xtreme 2	Digital microscrew	Hi_Cal	PS16 V1 VS	S_View D50S / D80S PC output	S_View D200S	D300S instr. input	D300S output PC	D302 / D304	D400S	D70S/H/I	S_Dial WORK PLC
	•								•			•					
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		•	•	•	•	•	•					•					
		•	•	•	•	•	•					•					
																	•

CONNECTION

	Standard 2 m	Standard 3 m	≤15 m	Bi-directional	Programmable by PC
	--	926.6723	¹⁾	●	
	--	926.6721	¹⁾	●	
	--	925.5609	¹⁾	●	
	--	804.1210	--	●	
	--	926.6001	--	●	
	925.1142*	--	--	●	
	--	925.1143 ²⁾	--	●	
	--	926.5505	--	●	
	--	804.2201	--	●	
	--	804.2204	--	●	
	--	804.2205	--		

¹⁾ Maximum 7m (Standard 5m)

²⁾ must be connected with bi-directional cables only

* The D70 and D400S do not work on Vmux with this adapter

Cables

S_Connect

A

CONNECTION

S_Cal Pro / S_Mike Pro	UL	S_Depth PRO / S_Scale WORK	Mesureur d'angles	S_Dial S233 / S234	S_Dial ONE / S_Dial WORK Hi_Gage ONE	PS16 V2	Digital microscrew	Hi_Cal	PS16 V1 VS	S_View D50S / D80S PC output	S_View D200S	D300S instr. input	D300S output PC	D302 / D304	D400S	D70 H/I	D70 S	D70 A	D62S	Xtreme 3 / UL4	M-Bus (except RS)	Z5
•			•		•	•						•								•		
•			•		•	•						•									•	
								•		•	•	• ⁶⁾		•	• ⁴⁾		•		•		•	
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³⁾ must be connected with RS232 cables

⁴⁾ For MB-XX module and RS232 PC connections

⁵⁾ RS232 connection to PC (D70S version and D400S only) bidirectional. Versions D70I/H require a crossover RS232 cable.

⁶⁾ Not working on PC

⁷⁾ Update of the units

⁸⁾ Crossover cable for PC connection

⁹⁾ Connection cable for MB-I/O



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