

User manual

Cable blowing process recorder

Blue Dragon Jet Brain



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Safety Precautions

General Safety Precautions

As the general rule, the owner of the machine is responsible for maintaining good technical condition of the machine and safe work environment. The machine is built in accordance with the latest technical knowledge and general safety standards. However, a serious injury may occur to personnel operating the machine or other parties present near it while in operation.

The machine may only be used for its intended purpose, ie. blowing fiber optic cables and only if its technical condition is impeccable.

Prior to operating the machine, its technical specifications must be learnt, as well as the ambient temperature must be measured. The appropriate use of the machine is described in detail on the following pages.

The basic condition for safe operation and proper functioning of the machine is the knowledge of the basic safety instructions and general safety regulations. In the workplace where the machine is operated Health and Safety regulations must be strictly met at all times. Both, when operating and servicing the

machine, good care should be taken to keeping the workplace clean and orderly.

In the event of any modifications to the design of the machine or operating in ways different from those intended, the Manufacturer is exempt from any liability and warranty service.

Liabilities of the machine's owner

It is the owner's responsibility to make sure that only properly trained personnel is allowed to operate the machine. Such persons must be:

- familiar with Health and Safety regulations
 - familiar with the operating instructions of the machine
 - familiar with manual instructions and aware of warnings related to work safety,
- and
- whose knowledge of work safety is checked at regular intervals.

Service and repair works may be carried out by only trained personnel and any defect that may affect work safety must be removed immediately.

Liabilities of personnel operating the machine

All persons working with the machine are obliged to:

- comply with generally applicable safety regulations
- learn and comply with the safety precautions while operating the machine.

Warranty and liability of the producer.

Unless stated otherwise, the general terms conditions of sale and delivery by GAMM BUD Ltd apply.

The producer shall have no liability for damage of property or injuries if these occur due to one or more of the following:

- operating the machine in violation of its operating instructions and intended use
- incorrect installation, operation or maintenance of the machine
- operating the machine with defective, incorrectly installed or missing safety guards
- unauthorized design changes to the machine or improper performance parameters of the machine
- allowing for excessive wear and tear of some parts of the machine
- repairs or operations of the machine carried out incorrectly

- accidents due to external factors or force majeure.

Detailed recommendations

Personnel operating the machine must read operating manual beforehand and comply with its provisions while operating the machine.

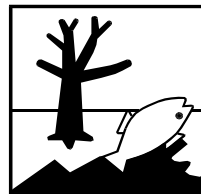
Failure to comply with safety instructions and general Health and Safety regulations can result in accidents or death.

WARNING! Keep hands away from rotating parts of the machine due to possible injury.

Maintenance and repair work on pneumatic equipment may only be performed only by trained personnel.

Compliance with environmental regulations

Oils should not be mixed with any other liquids. They should not be poured into drains or waste or onto the ground. All the oils, greases and other liquids used during repairs or maintenance of the machine should be collected in special containers, stored, transported and disposed of in accordance with the pertaining laws and regulations.

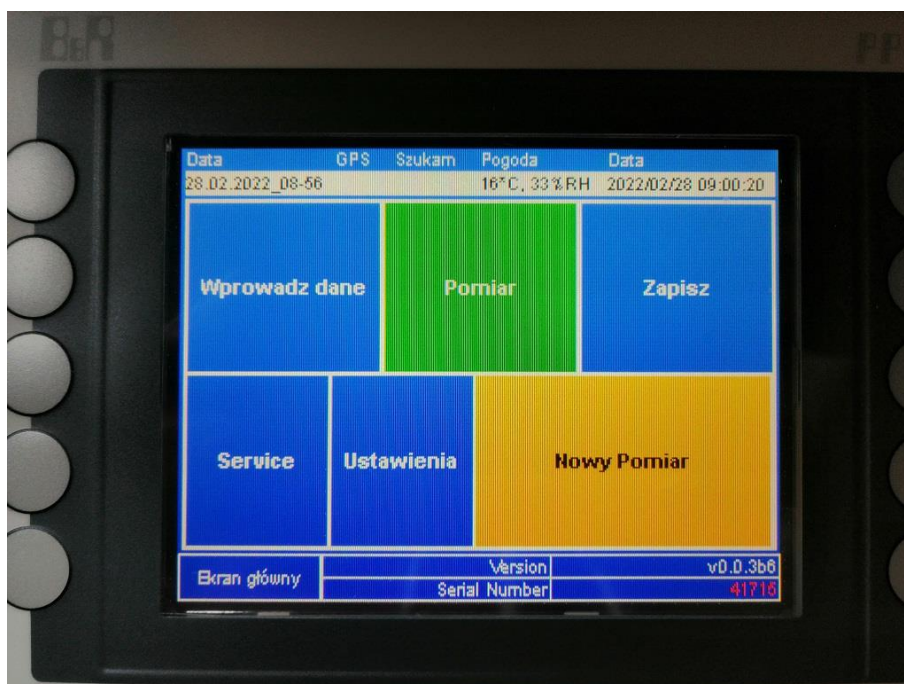


Standard functions (Standardausstattung):

- 1) battery level indicator
- 2) signal cable socket
- 3) USB port
- 4) the switch
- 5) power cord socket



After launching, the device displays the welcome screen.



Operating the recorder:

Connect the signal cable to the Brain recorder and Smart blowing unit.

Turn on the recorder by pushing the switch button (on the right).

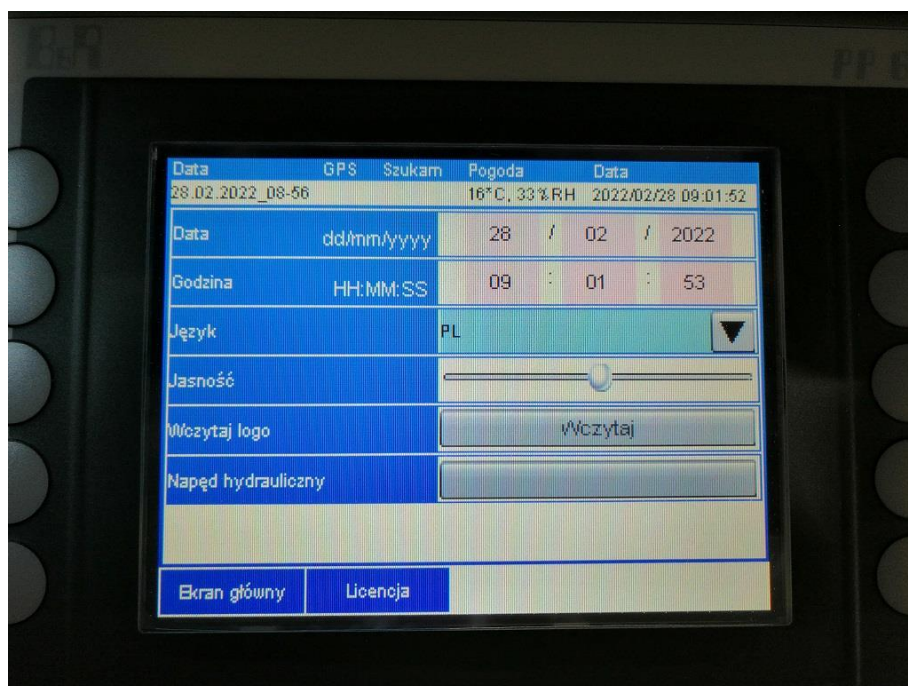
If the battery is charged, the device will turn on without the need for additional power supply.

Do not measure the blowing results when the battery is low.

Settings

In the main menu, after selecting the button: "Settings", you can set:

- the current date
- the current time
- menu language
- screen brightness



Getting started

Click "New Measurement (Neue Messung) on the "Home" tab.

Then click the data entry button (Dateneingabe) and go to the first screen 1/5-
"Terrain conditions"
(Grundlagen)

The screenshot shows a handheld device screen with a data entry form. The form has a header bar with tabs: 'Data', 'GPS', 'Szukam', 'Pogoda', and 'Data'. Below the header, the following fields are visible:

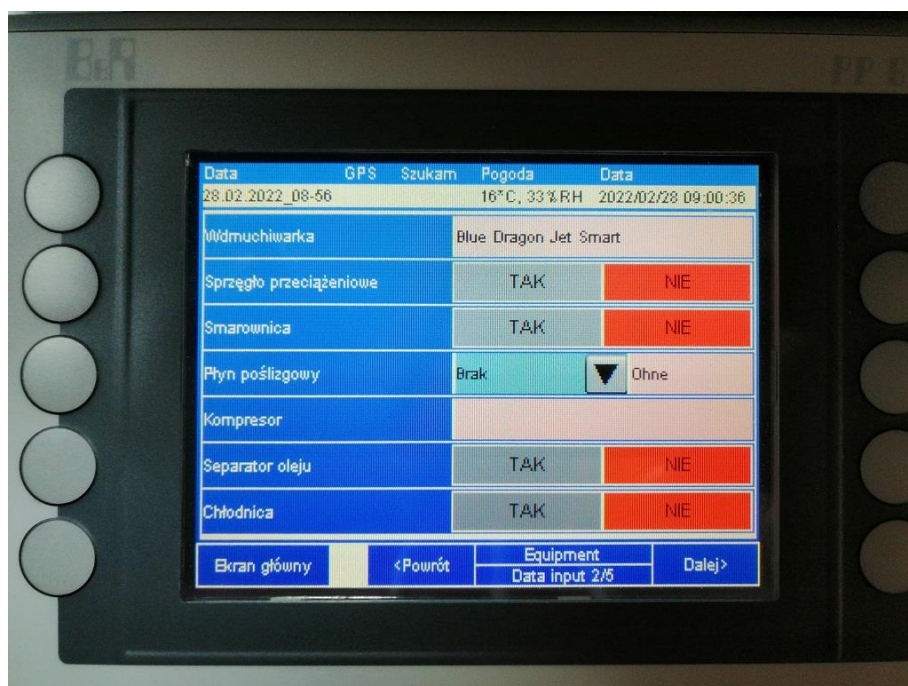
Data	GPS	Szukam	Pogoda	Data
28.02.2022_08-56			16°C, 33%RH	2022/02/28 09:00:28
Projekt budowlany nr.				
Odcinek				
Kontrahent				
Operator maszyny				
Ilość wejść kablowych do budynku/szafy				
Sprawdzający				
Komentarz				

At the bottom of the screen, there is a navigation bar with the following buttons: 'Ekran główny', '<Powrót', 'Grundlagen Data input 1/5', and 'Dalej>'.

Fill in the following data:

- Site number (Bauvorhaben Nr)
- Site Section (Streckenabschnitt)
- Contractor (Auftragnehmer)
- Machine operator (Einblaser)
- Controller (Anwesende)
- Comment/Remark (Bemerkungen)
- field "Weather" (Wetter) displays automatic data regarding temperature and humidity

Continue with the (Weiter) button to the next card: 2/5 "Equipment":



Fill in the following data:

- Fiberblowing machine(Einblasgerät)
- Overload clutch (Rutschkupplung)
- Prelube liquid (Lubricator)
- Lubricator (Gleitmittel)
- Compressor (Kompressor)
- Oil separator(Ölabscheider)
- Cooling unit(Nachkühler)

Continue with the (Weiter) button to the next card: 3/5 "Tube parameter" (Rohrparameter):



Fill in the following data:

- Blowing In (Einblasen In)
- Tube type(Rohrtyp)
- Tube producer (Hersteller)
- Inner tube wall (Rohrrinnenwand)
- Color/mark(Farbe/ Kennung)
- Temperature/Pressure (Rohr Temperatur Maximale Kraft)
- Crash test

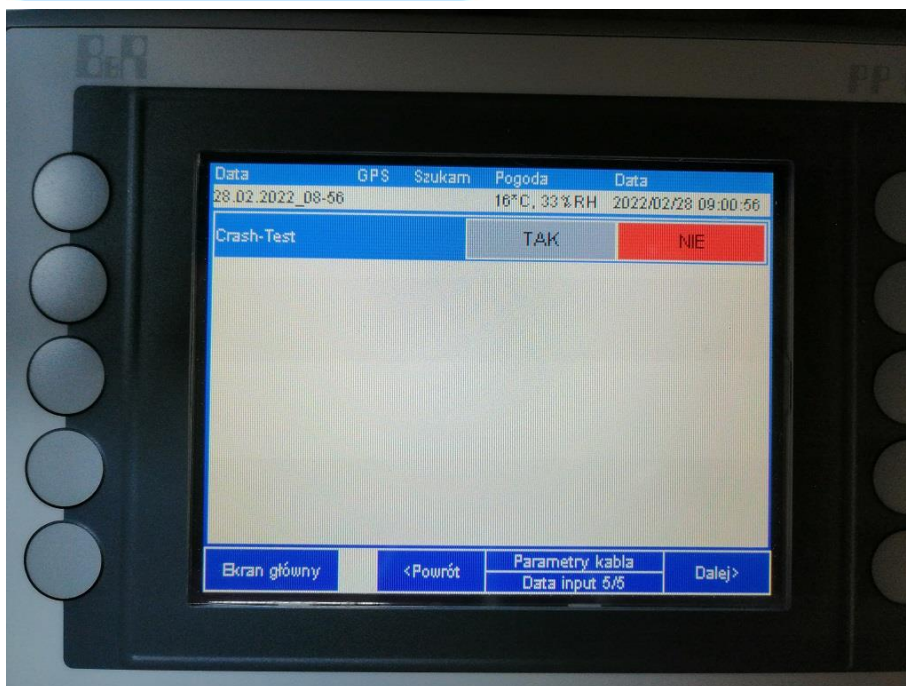
Continue with the (Weiter) button to the next card: 4/5 Cable parameter (Kabelparameter):

Data	GPS	Szukam	Pogoda	Data
28.02.2022_08:56			16°C, 33%RH	2022/02/28 09:00:50
Producent	Coming ▼			
Kabel-Typ	Minikabel (AD <6)			
Identyfikacja kabla				
Liczba włókien / Liczba SNR				
Ø kabla (zmierzona) Temperatura kabla		mm		°C
Liczba metrów Start / Koniec	0	m	0	m
Numer bębna				
Ekran główny		<Powrót	Parametry kabla Data input 4/5	Dalej>

Fill in the following data:

- Producer (Hersteller)
- Cable type (Kabel Typ)
- Cable marking (Kabelkennung)
- Number of fiber/Number of tube(Faserzahl/SNR Anzahl)
- Diameter of cable/Cable's temperature (Kabel Ø (gemessen)/ Kabel temperatur)
- Number of meters Start/End (Meterzahl Start/Ende)
- Drum's number (Trommel Nummer)

Continue with the (Weiter) button to the next card: 5/5 Cable parameter (Kabelparameter):



Fill in the following data:

-Crash test

Creating a measurement

To go to the measurement card, click the measurement button (Messung).

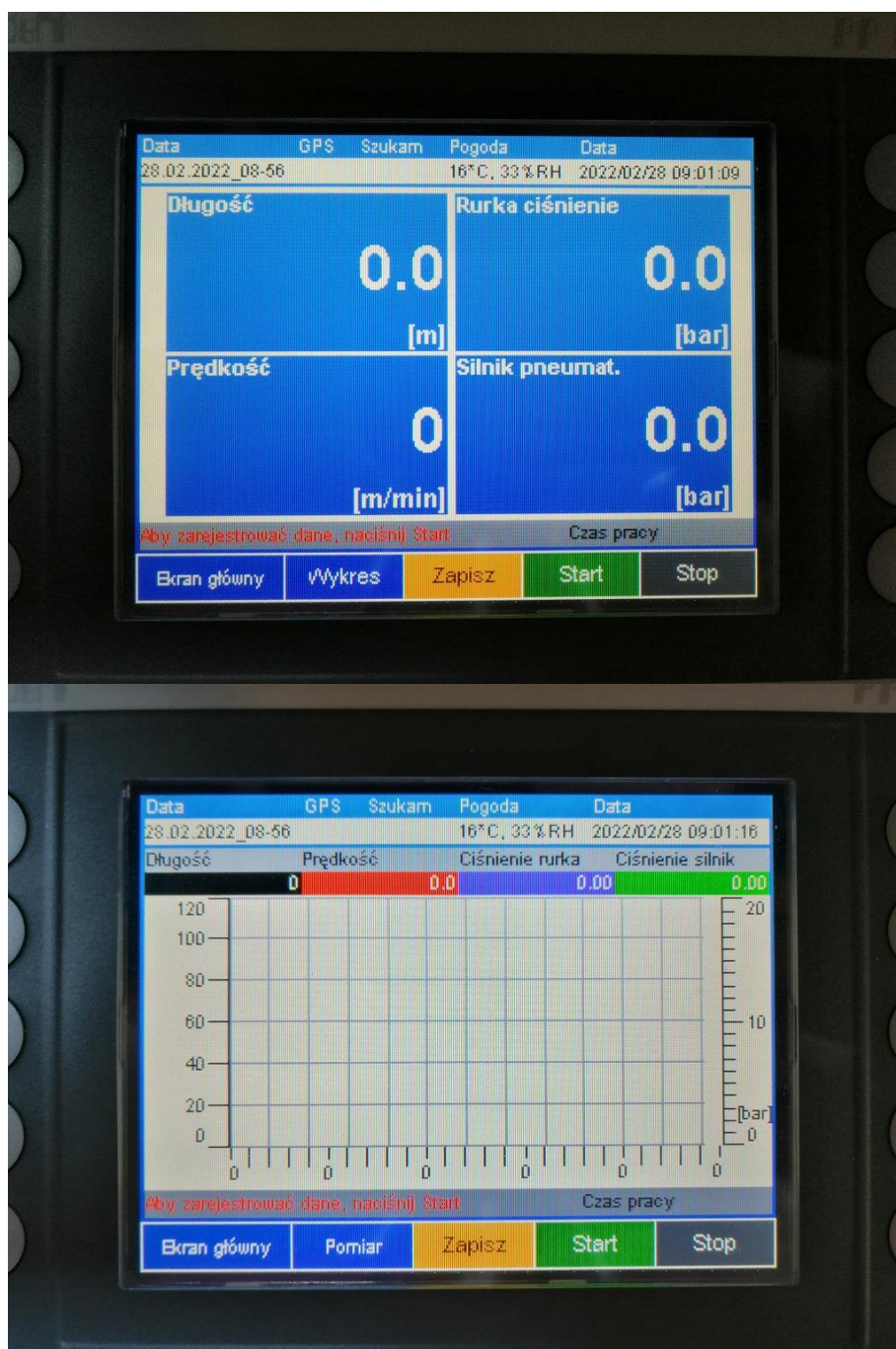
It displays a screen with values of pressure, distance and blowing speed.

If the signal cable is properly connected, then turn of the unit's measuring wheel will show the increase in distance.



Measuring Wheel of the blowing unit

During the measurement, you can switch between the "Messung" card displaying the blowing parameters and the "Diagramm" card showing the blowing parameters as a graph.



From both of these tabs, you can access the Record tab (Speichern).

After the measurement has been completed, return to the "Dateneingabe" and mark on which cable meter you have finished blowing in. The information should be entered in the "Metrezahl Ende" field.

Then click on the "Speichern" button to access the recording card.

The measurements can be saved in the recorder's memory (up to 100 measurements) by clicking the record button (Speichern). You can also save it to a USB flash drive.

The device also allows users to copy files from the memory to the USB by clicking "Copy auf USB stick".

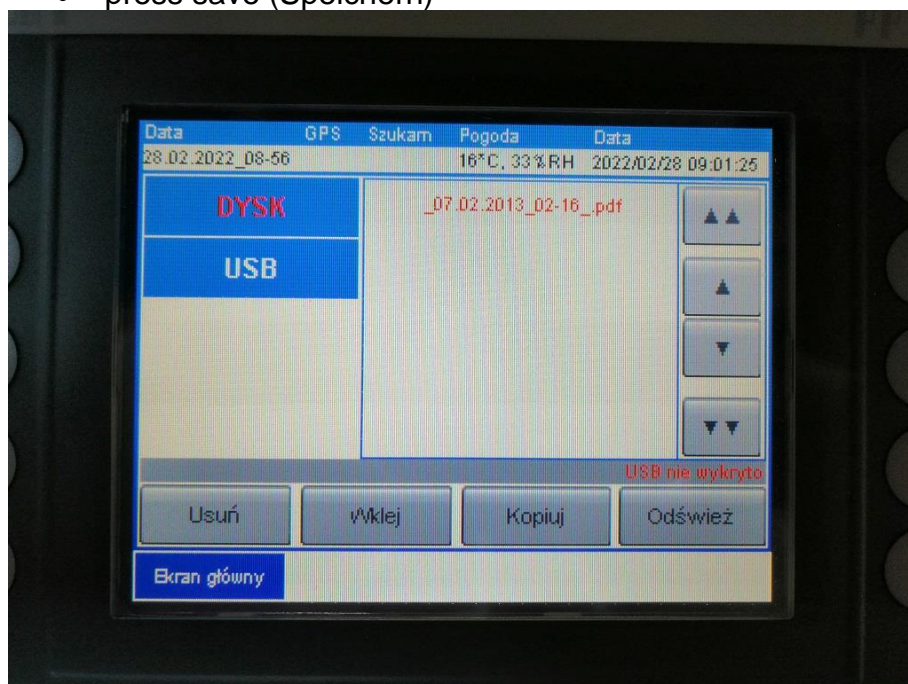
Recording procedure:

Saving the measurement in the recorder's memory (Disk):

- press save (Speichern)

Saving the measurement onto USB Flash drive (USB Flash Laufwerk):

- plug the drive inside the USB port
- press the update button (Aktualisieren)
- check the contents of the disk
- press save (Speichern)



Copying the files from internal memory of the recorder to the USB flash drive:

- place the flash drive inside the USB port
- press the Update button (Aktualisieren)
- check the contents of the disk
- go to the Disk tab with the Update button
- select the file you want to copy from the list of files in the memory
- press "Copy " button
- go to the USB and press "Paste" button

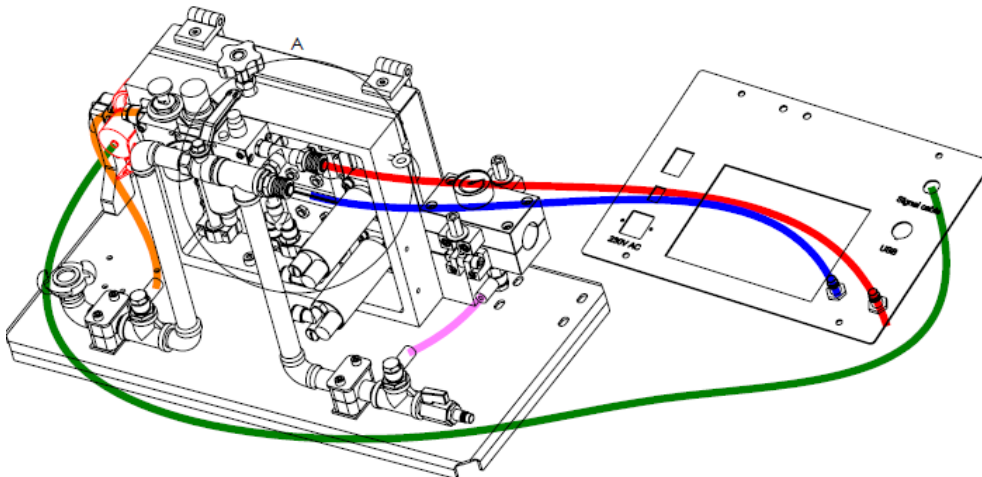
The recorder detects USB flash drives in 1.0 or 2.0 standard.

The device should work about 8 hours on the battery (at 20 degrees in winter less)

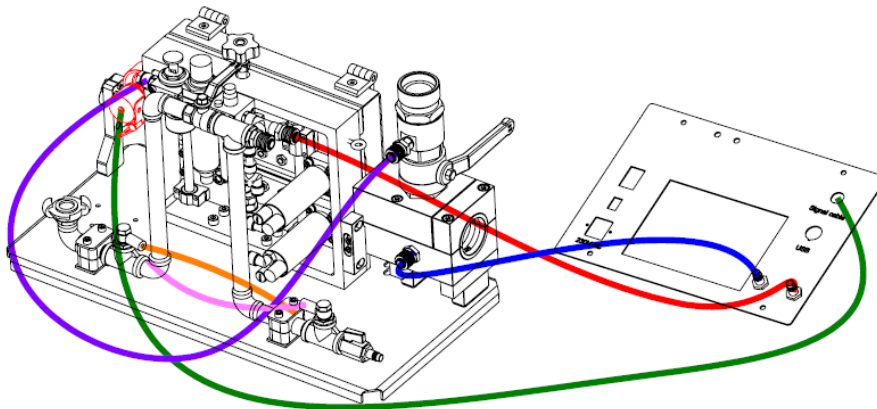
Note: the measurements are not automatically saved - you have to save them inside the recorder's memory or onto the USB drive !

Note: GPS coordinates are displayed only while the recorder is in the open space.

Pneumatic connections (for Brain with sensors inside the box):



Pneumatic connections for working with microducts blowing head.



Pneumatic connections for working with ducts (32,40,50) blowing head.