VISIO MULTIFLOW

DISPLAY FOR MULTICHANNEL FLOWMETER

CE

4670611

Software rel. 1.2.x

INSTALLATION, USE AND MAINTENANCE

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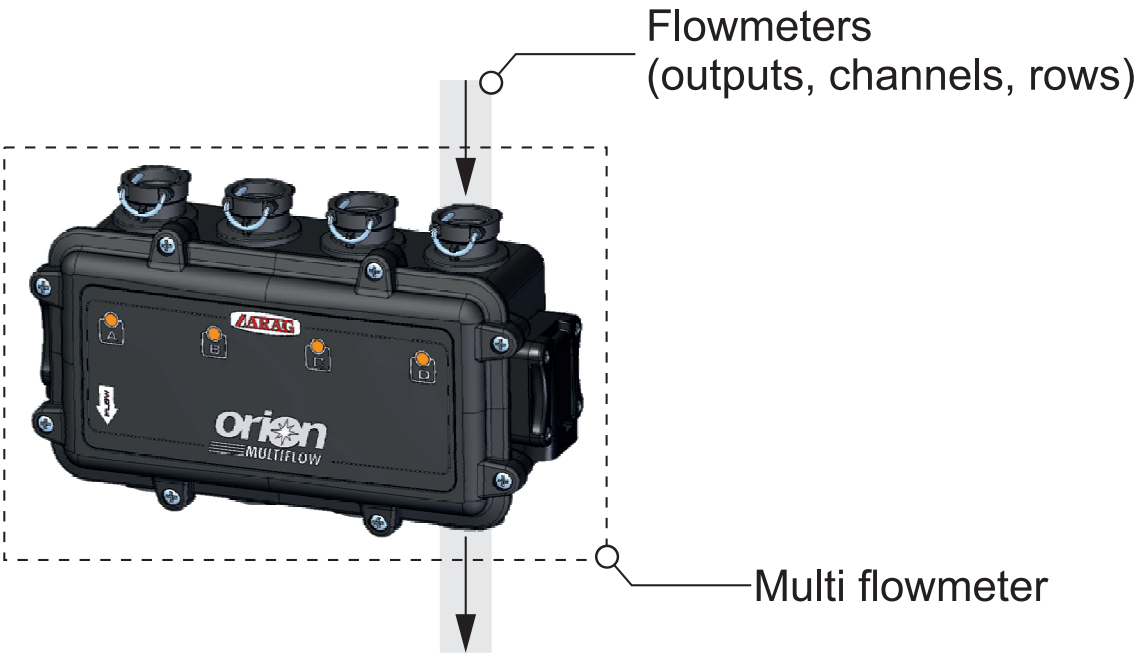
• Legend of symbols

	= **Generic danger**
	= **Warning**

• Terminology legend

***Multi flowmeter*:** **ORION MULTIFLOW flowmeter (up to 4 can be connected)**
***Flowmeter*:** **Outputs, channels or rows (up to 4) present in each multi flowmeter**



This manual is an integral part of the equipment to which it refers and must accompany the equipment in case of sale or change of ownership. Keep it for any future reference; ARAG reserves the right to modify product specifications and instructions at any moment and without notice.

1. INTRODUCTION

1.1 Product description

VISIO MULTIFLOW is a multifunction display specifically designed to be connected to the ORION MULTIFLOW multi flowmeter.

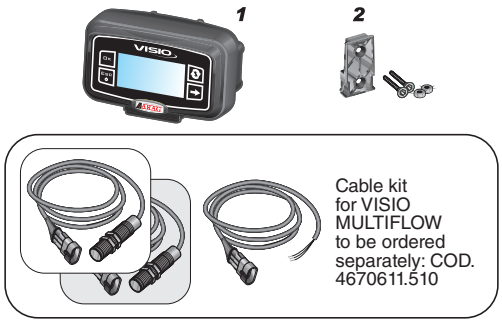
Up to 4 multi flowmeters, corresponding to 16 channels, can be connected.

2. INTENDED USE

This device is designed to work on agricultural machinery for spraying and crop spraying applications.
The machine is designed and built in compliance with EN ISO 14982:2009 standard (Electromagnetic compatibility - Forestry and farming machines) harmonized with 2014/30/UE Directive.

3. CONTENT OF THE PACKAGE

The table below indicates the components that you will find in the VISIO MULTIFLOW package:



Legend:

1 VISIO MULTIFLOW
2 Fixing kit

4. PRECAUTIONS

- **Do not aim water jets at the equipment.**
- **Do not use solvents or fuel to clean the case outer surface.**
- **Do not clean equipment with direct water jets.**
- **Comply with the specified power voltage (12 Vdc).**
- **In case of voltaic arc welding, remove connectors from VISIO MULTIFLOW and disconnect the power cables.**
- **Only use ARAG genuine spare parts and accessories.**

5. INSTALLATION

5.1 Risks and protections before assembly

All installation works must be done with battery disconnected, using suitable tools and any individual protection equipment deemed necessary.

5.2 Positioning

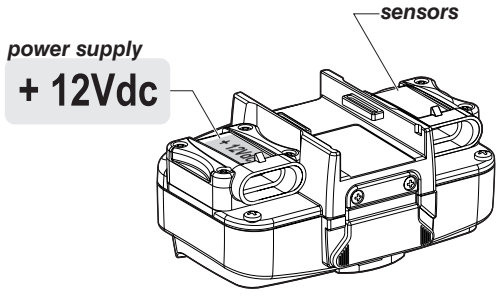
1) Set mounting rail in cabin and fasten it with the relevant screws (**1**), in a position where VISIO MULTIFLOW can be easily seen and at hands' reach, but away from any moving organs.

2) Secure VISIO MULTIFLOW to rail and push down until locked in place.

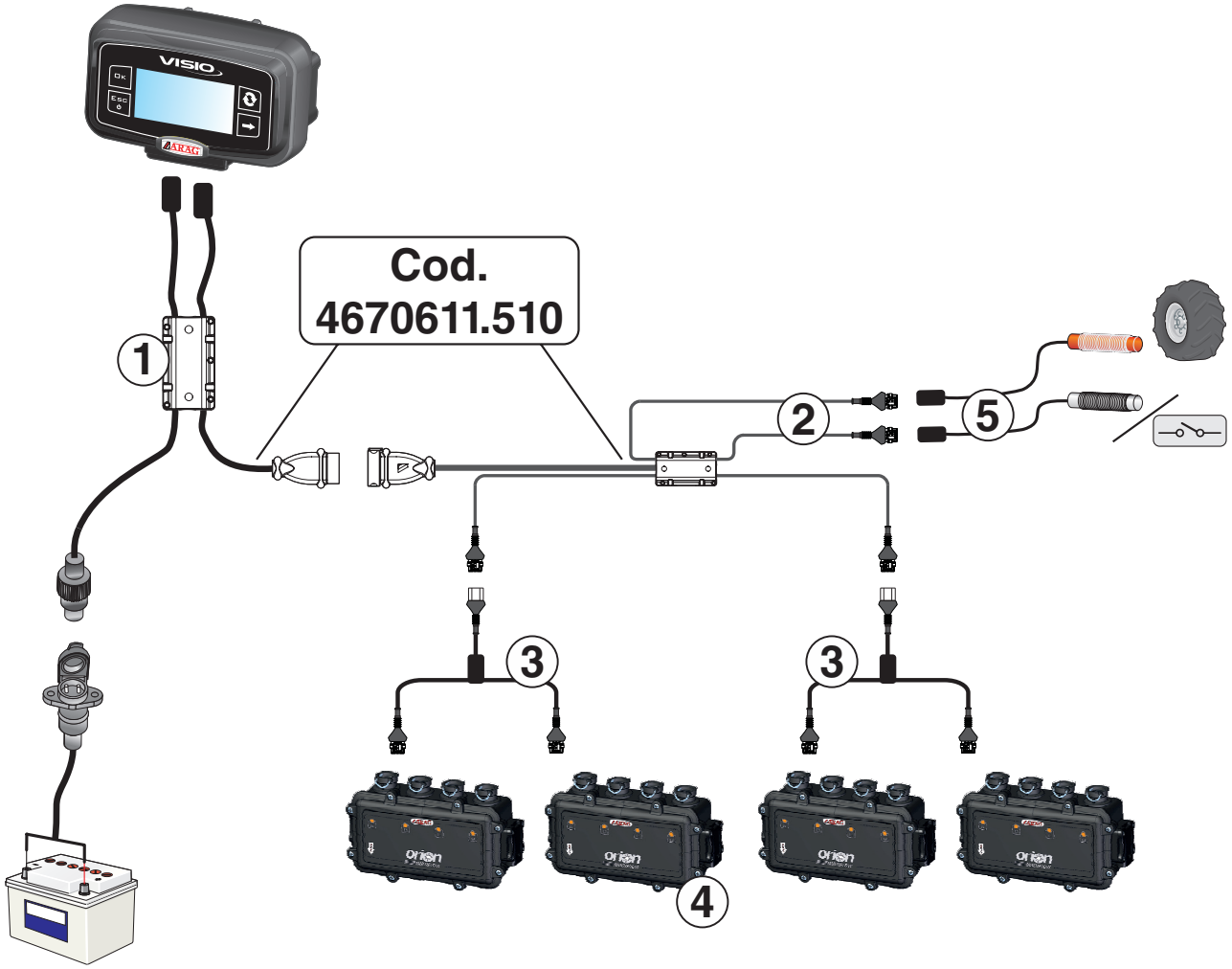
3) Fasten wiring so that it does not interfere with any moving parts.

5.3 Power supply and sensor connection

Sensors and power supply must be installed and connected by qualified personnel.
VISIO MULTIFLOW must be exclusively connected to ARAG equipment.
WHEN ARC WELDING IS REQUIRED, MAKE SURE THAT EQUIPMENT POWER IS SWITCHED OFF; DISCONNECT POWER CABLES IF NEEDED.
ARAG is not liable for damage to the system, persons, animals or property caused by VISIO MULTIFLOW wrong or unsuitable assembly. Failure to observe the above instructions automatically voids the warranty.

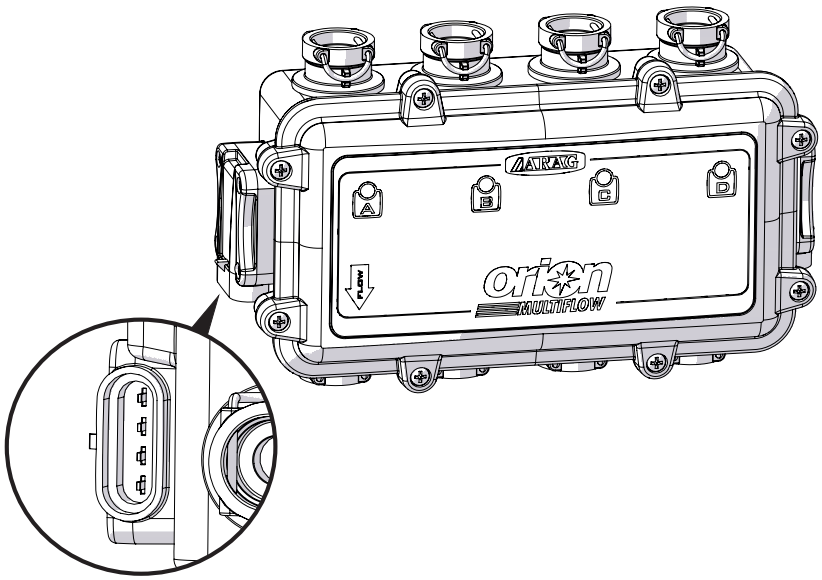


Wire color (power cable)	Connection of
red	positive
black	negative
green	counting abort - ground connection
green	counting abort - connection +12 VDC

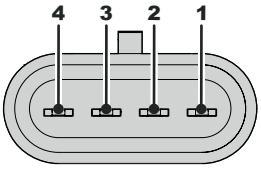


Legend:

1) Power cable
2) Speed sensor connection cables
3) ORION MULTIFLOW Flowmeters connection cables
4) ORION MULTIFLOW Flowmeters
5) Speed sensors and job status



POWER SUPPLY + CANBUS



SUPERSEAL™ TE 4-POLE CONNECTOR	
Position	**Connection**
1	GND
2	+12 VDC
3	CAN L
4	CAN H

6. WIRING CONNECTIONS

⚠ **• Use only the cables provided with the ARAG computers.**
• Take care not to break, pull, tear or cut the cables.
• Use of unsuitable cables not provided by ARAG automatically voids the warranty.
• ARAG is not liable for damages to the equipment, persons or animals caused by failure to observe the above instructions.

6.1 General precautions for a correct harness position

• Securing the cables:
- secure the harness so that it does not interfere with moving parts;
- route the harnesses so that they cannot be damaged or broken by machine movements or twisting.

6.2 Sensor connection

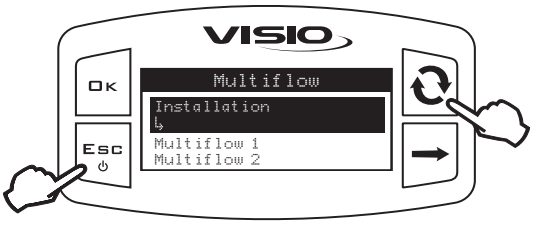
Fix the connectors to the relevant functions according to the initials indicated in your assembly general diagram (par. *5.4*).

Use ARAG sensors: use of unsuitable sensors not provided by ARAG automatically voids the warranty.
ARAG is not liable for damage to the equipment, persons or animals caused by failure to observe the above instructions.

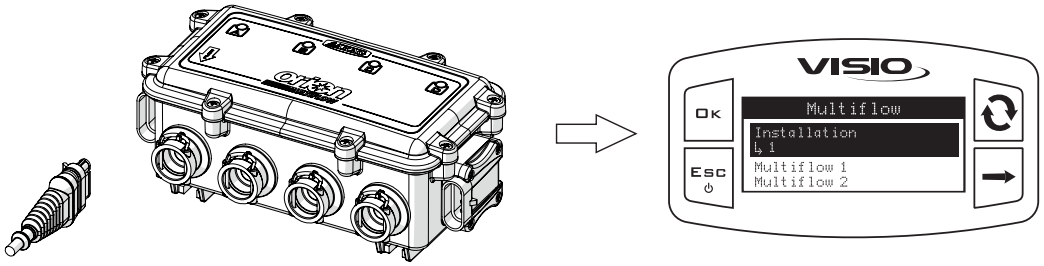
6.3 Connection to the multi flowmeters

⚠ Upon installation, pay the utmost attention to the sequence according to which the flowmeters are connected for the first time.

THE CONNECTION MUST BE CARRIED OUT FROM THE TEST MENU SCREEN.



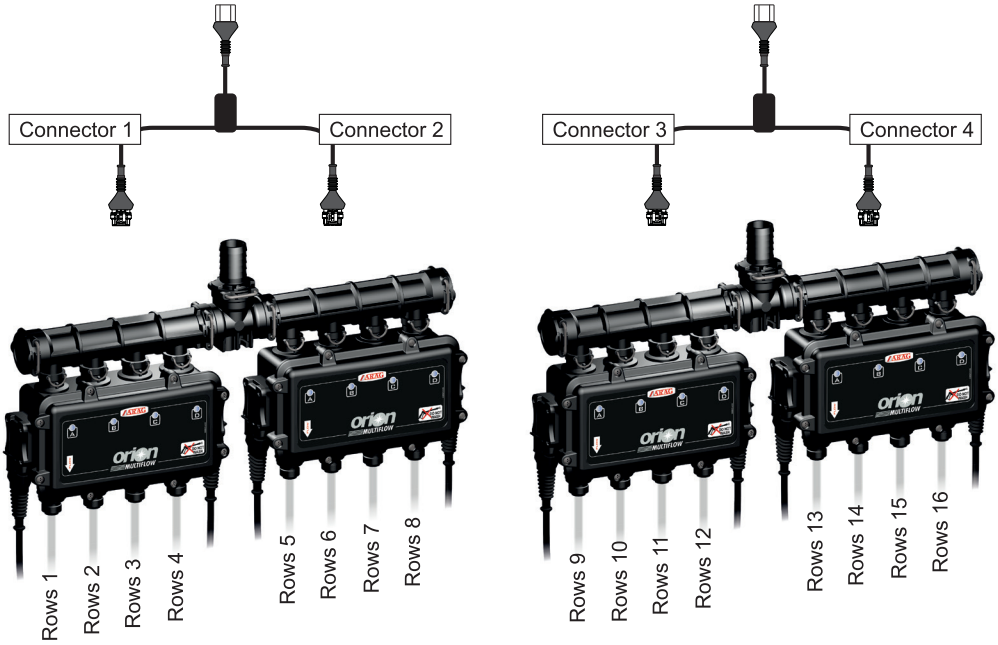
Access the Installation menu (Settings menu > Tests > Sensors > Multiflowmeters).



Upon first sensor connection, number 1 will light up under the installation message.

Each connected multiple flowmeter will take an increasing numbering, up to a maximum of 4.

A range of information can be obtained for each multiple flowmeter, hence for each single channel ("Multi flowmeters test" on page 26).



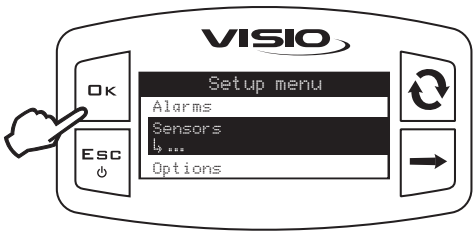
- *Connector 1* controls the rows from 1 to 4;
- *Connector 2* controls the rows from 5 to 8;
- *Connector 3* controls the rows from 9 to 12;
- *Connector 4* controls the rows from 13 to 16.

6.4 Preliminary setup

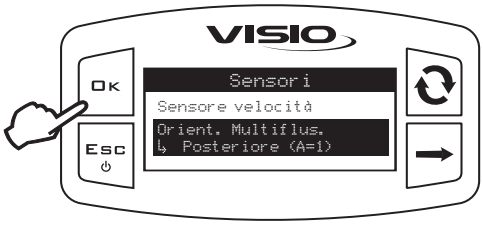
6.4.1 Multi flowmeter orientation

Set the position of the flowmeters on the equipment.

The Multiflow assembly direction must be correctly set since it allows the exact combination of the row on the machine with the symbol appearing on the display.

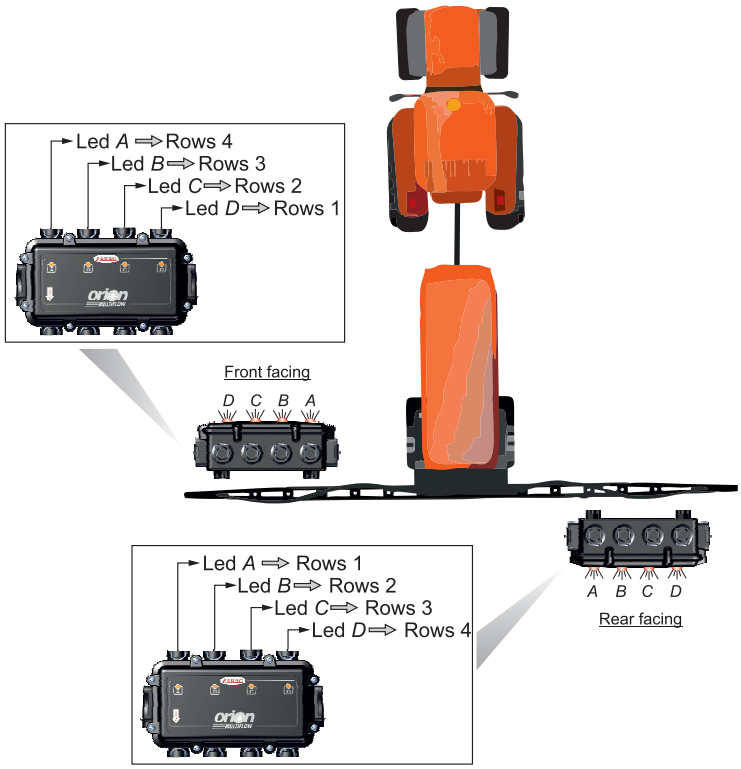


1) Open Sensors menu (Setup menu > Sensors).



1) Access the Multi flowmeter Orientation menu (Settings menu > Sensors > Multi flowmeter orientation).

The display will show the current setting below the selected item.

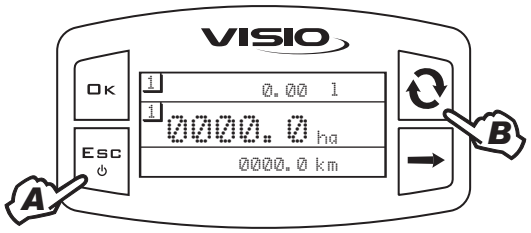


7. CONTROLS IN THE MENU

7.1 First switching on

At first switching on, VISIO MULTIFLOW will run a guided procedure allowing user to set the device's basic settings.

Press to scroll through items, OK to save and move on to next setting, or ESC to go back to previous setting.



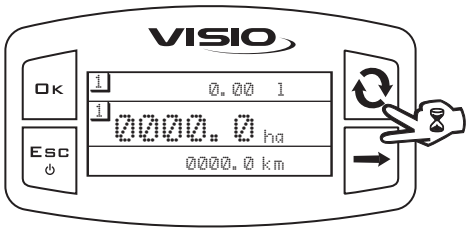
SWITCHING ON

A Press **for 1 second**;
B Press the key a few times to view the various values in extended mode, (on display central part).

Every time the device is switched on, it will shortly show a page with the name of device and software version.

SWITCHING OFF

A Press **for 2 seconds**.



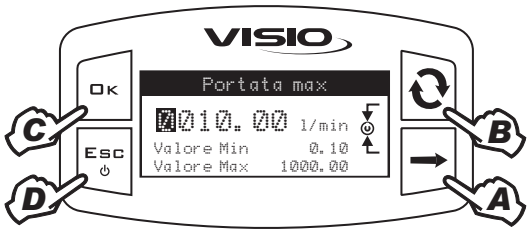
ACCESS TO SETUP MENU

From the main page, press keys at the same time **for 2 seconds** to open the Setup Menu.

SELECTION AND ACCESS TO MENU ITEMS

A Press a few times to scroll through items (selected item is indicated by a black line);
B Press to open the selected menu item.

The three dots under an item indicate presence of another setup menu.

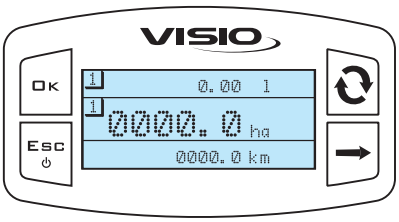


EDITING A VALUE

A Press to move through digits;
B Press a few times to edit the highlighted digit;
C Press to confirm. The display goes back to previous page;
D Press to exit page without confirming modification.

Edited value must fall within the range shown.

8. MENU STRUCTURE



- **Alarms**
  - Min flowrate
  - Max flowrate
  - Min speed
  - Max speed
  - Min App. rate
  - Max App. rate
  - Flowmeters status
  - Alarm act. delay
- **Sensors**
  - Speed sensor
    - Man. calibration
    - Auto calibration
  - Multiflow orient.
- **Options**
  - Language
  - Units of measurem.
    - Flowrate
      - *l/min*
      - *GPM*
      - *m^3/h*
    - Volume
      - *l*
      - *gal*
      - *m^3*
    - Speed
      - *km/h*
      - *MPH*
    - Length
      - *cm*
      - *inch*
    - Surface
      - *ha*
      - *ac*
      - *ksqft*
    - Application rate
      - *l/ha*
      - *GPA*
      - *GPK*
    - Distance
      - *km*
      - *miles*
  - Display contrast
  - Alarm tones
  - Keytones
  - ID reset
- **Job settings**
  - Rows number
  - Row width
  - Application rate
- **Setup management**
  - Save setup
  - Load setup
- **Test**
  - Firmware version
  - Power voltage
  - Display
  - Keys
  - Sensors

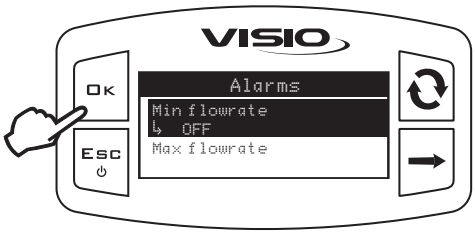
9. PRELIMINARY SETUP FOR USE - SETUP MENU

9.1 ALARMS

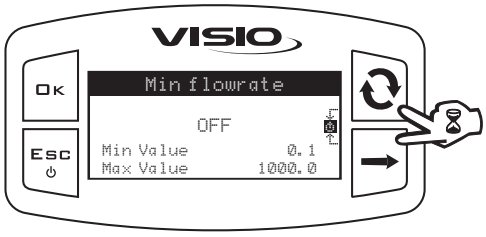
9.1.1 Flowrate alarms

Set minimum and maximum flowrate thresholds for alarm message.

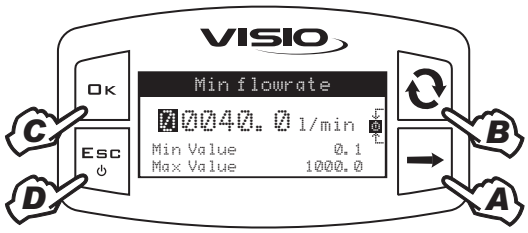
Minimum and maximum rate alarms are set in the same way.



1) Open Alarm menu (Setup menu > Alarms).
The display will show the current setting below the selected item.
Press OK to edit the selected menu item.



2) To activate the alarm, press and at the same time until message OFF goes off and rate alarm value is displayed instead.
Carry out the same procedure to disable alarm again.

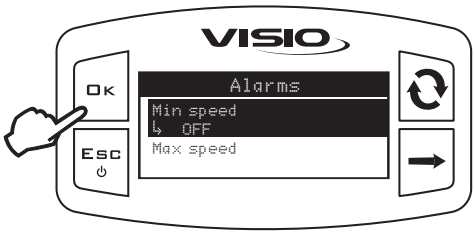


3) Set alarm value:
A) Press to move through digits;
B) Press a few times to edit the highlighted digit;
C) Press to save changes, or;
D) Press to quit the page without confirming changes.

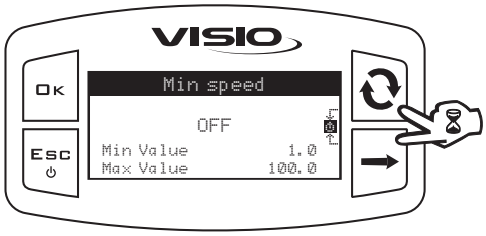
9.1.2 Speed alarms

Set minimum and maximum speed thresholds for alarm message.

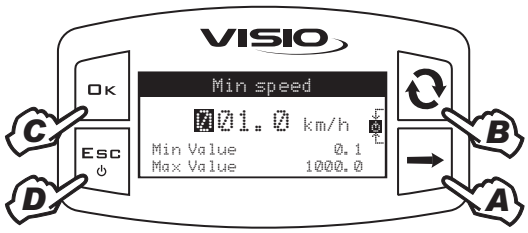
Minimum and maximum speed alarms are set in the same way.



1) Open Alarm menu (Setup menu > Alarms).
The display will show the current setting below the selected item.
Press OK to edit the selected menu item.



2) To activate the alarm, press and key at the same time until message OFF goes off and speed alarm value is displayed instead.
Carry out the same procedure to disable alarm again.

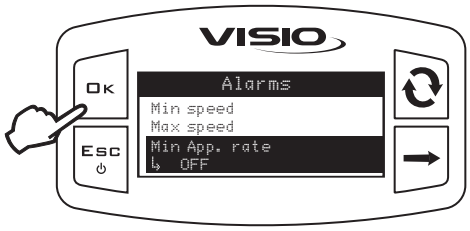


3) Set alarm value:
A) Press to move through digits;
B) Press a few times to edit the highlighted digit;
C) Press to save changes, or;
D) Press to quit the page without confirming changes.

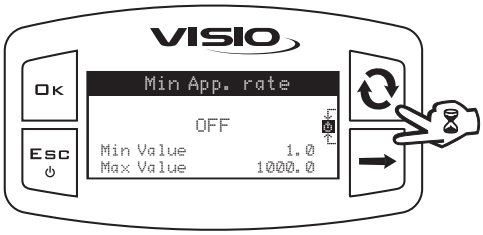
9.1.3 *Application rate alarms*

Set the desired alarm display thresholds for minimum and maximum application rate.

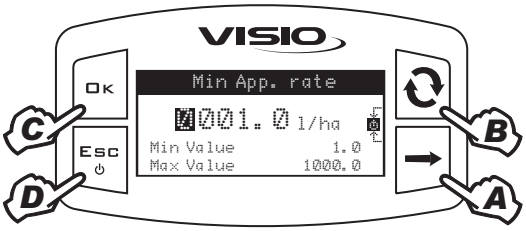
Minimum and maximum application rate alarms are set in the same way.



1) Open Alarm menu (Setup menu > Alarms).
The display will show the current setting below the selected item.
Press OK to edit the selected menu item.



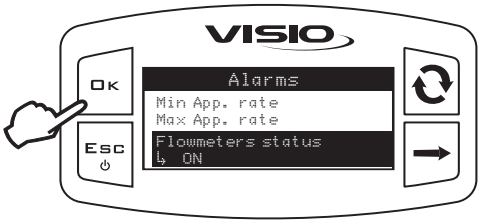
2) To activate the alarm, press and at the same time until message OFF goes off and application rate alarm value is displayed instead.
Carry out the same procedure to disable alarm again.



3) Set alarm value:
A) Press to move through digits;
B) Press a few times to edit the highlighted digit;
C) Press to save changes, or;
D) Press to quit the page without confirming changes .

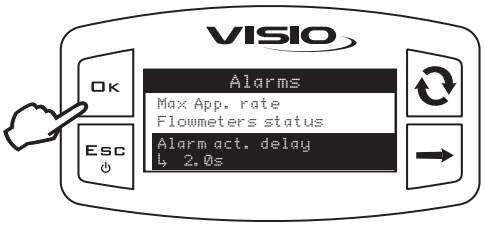
9.1.4 *Flowmeter status alarms*

Enable/disable the alarm corresponding to flowmeter status.

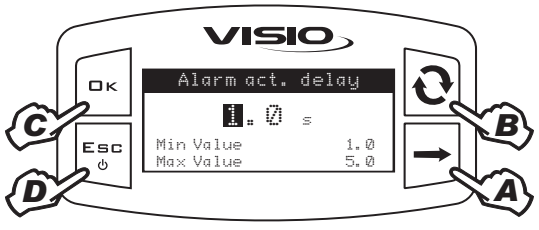


1) Open Alarm menu (Setup menu > Alarms).
The display will show the current setting below the selected item.
Press OK to edit the selected menu item.

9.1.5 *Alarm activation delay*



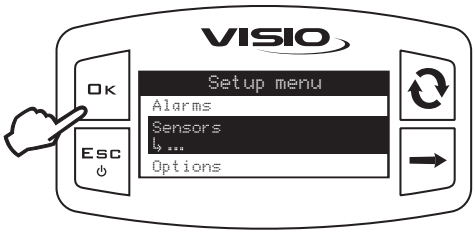
1) Open Alarm menu (Setup menu > Alarms).
The display will show the current setting below the selected item.
Press OK to edit the selected menu item.



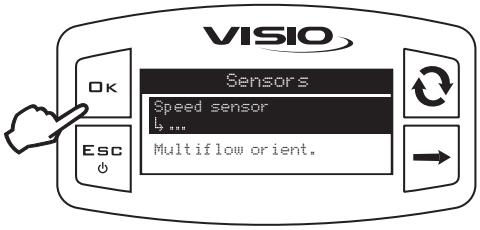
2) Set the alarm activation delay:
A) Press to move through digits;
B) Press a few times to edit the highlighted digit;
C) Press to save changes, or;
D) Press to quit the page without confirming changes.

9.2 SENSORS

9.2.1 Speed sensor



1) Open Sensors menu (Setup menu > Sensors).



1) Access the Speed sensor menu (Settings menu > Sensors > Speed sensor) to calibrate the sensor.

9.2.2 Speed sensor calibration

VISIO MULTIFLOW calculates the information concerning the speed thanks to pulses received by the sensor installed on the wheel.
To perform speed sensor calibration, proceed as follows:
-Measure a straight path at least 100 m (300 feet) long.
The longer the distance traveled, the more accurate the wheel constant calculation.
- Take measurements with tyres at the operating pressure.
This test must be performed on medium-hard terrain; for application to very soft or very hard terrain, rolling diameter may vary, leading to inaccurate output calculation; when this is the case, repeat the procedure.
During the test, cover the distance with the tank filled up to half capacity with water.

9.2.3 Manual calibration

Manual calibration allows to enter the wheel constant value calculated with the suitable formula:

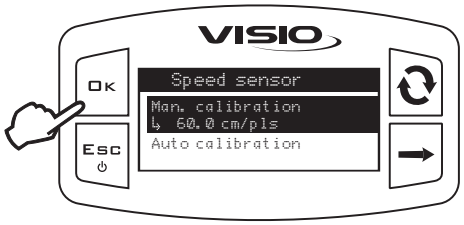
$$Kwheel = \frac{\text{distance traveled (cm)}}{\text{no. of detection points x wheel rpm}}$$

<distance traveled> distance expressed in cm covered by the wheel along measurement travel;

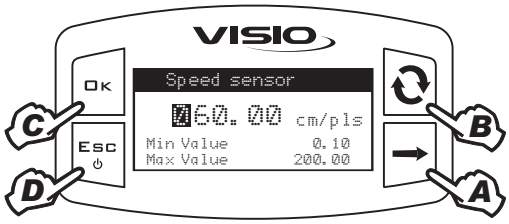
<no. of measurement points> number of measurement points (e.g., magnets, bolts, etc.), mounted on wheel;

<no. of wheel revolutions> number of wheel revolutions required to travel measurement distance.

The wheel constant can be calculated with a good approximation by detecting the distance traveled by the wheel with the speed sensor.

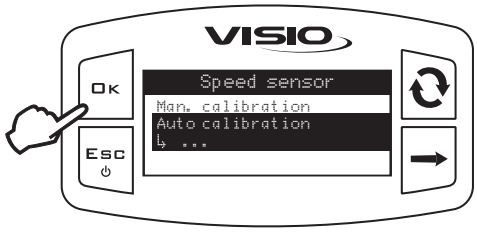


1) Open manual calibration menu (Setup menu > Sensors > Speed sensor > Man. Calibration).

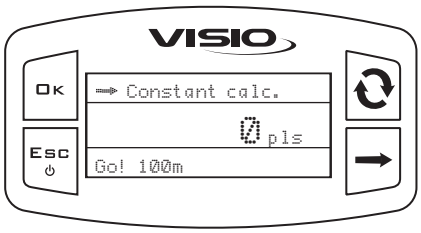


Cover the requested distance. Stop the tractor at the end of the distance and calculate wheel constant **(Kwheel)**.
2) Set wheel constant value:
A) Press to move through digits;
B) Press a few times to edit the highlighted digit;
C) Press to save changes, or;
D) Press to quit the page without confirming changes.

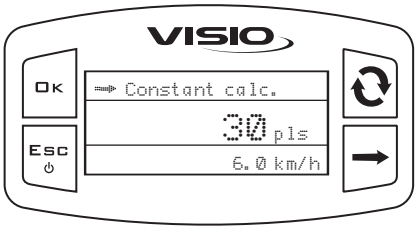
Calculate and save the wheel constant according to the procedure below:



1) Open automatic calibration menu (Setup menu > Sensors > Speed sensor > Auto Calibration).



As soon as menu is open, the equipment is ready to start measuring with no further controls being required.



Cover the requested distance: the number of pulses will increase during the path and the bottom area will indicate instant speed reading.

Stop the tractor at the end of the distance.

If a malfunction occurs, the message Check sensor! **will be shown in the top part of the display**.

Press **OK** to stop the counting. The display will go back to the previous menu and will show the acquired value.

In case of measurement errors, or if it is necessary to stop the calibration, press **ESC** for 2 seconds to quit the calibration procedure without saving.

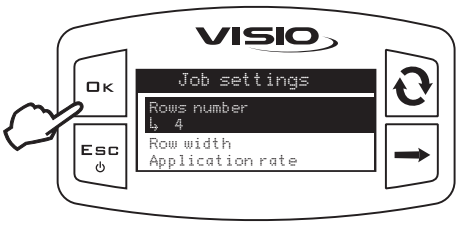
In this case, the value will be the one previously measured, or the default value.

9.3 JOB SETTING

Set the values corresponding to the machine.

9.3.1 Number of rows

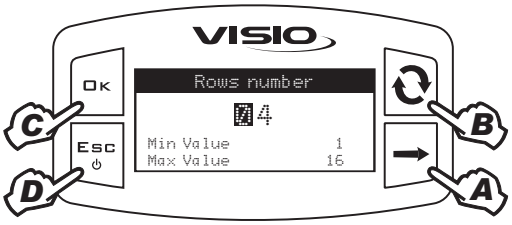
Set the number of rows you wish to use.



1) Access the row number set-up menu (Settings menu > Job set-up > Number of rows).

The display will show the current value below the selected item.

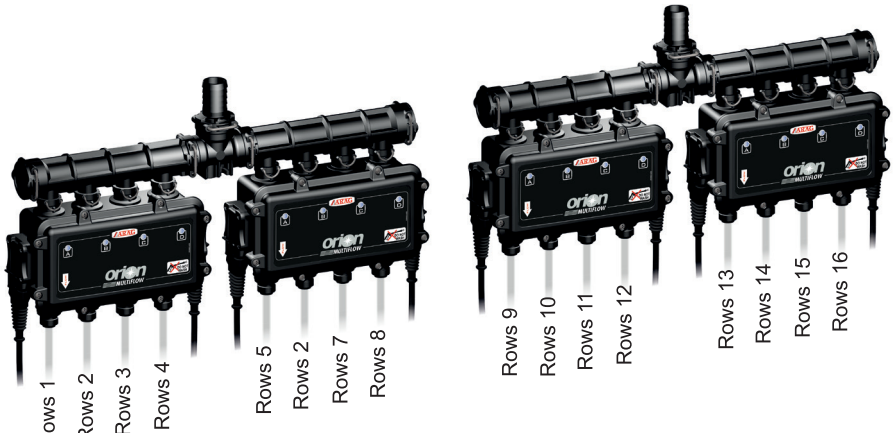
Press OK to edit the selection of the number of rows.



2) Set the value of the number of rows:

A) Press to move through digits;
B) Press a few times to edit the highlighted digit;
C) Press to save changes, or;
D) Press to quit the page without confirming changes.

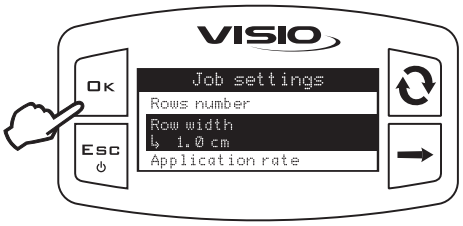
Possibilty to connect up to 4 ORION MULTIFLOW flowmeters and able to read the data of 16 channels at the same time.



9.3.2 Inter-row width

Set the inter-row width.

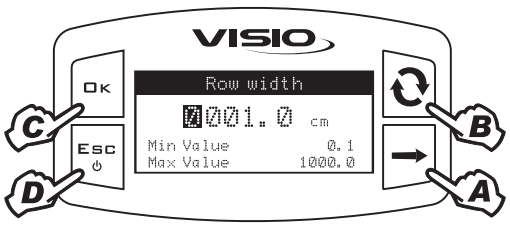
The inter-row width corresponds to the distance between the application points.



1) Access the inter-row width set-up menu (Settings menu > Job set-up > Inter-row Width).

The display will show the current value below the selected item.

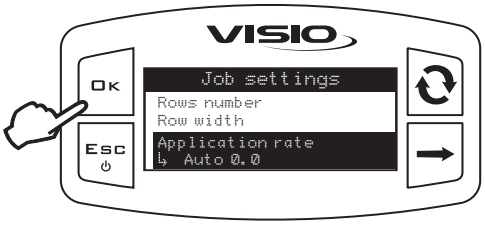
Press OK to edit the selection of the inter-row width.



2) Set the value of the inter-row width:

A) Press to move through digits;
B) Press a few times to edit the highlighted digit;
C) Press to save changes, or;
D) Press to quit the page without confirming changes.

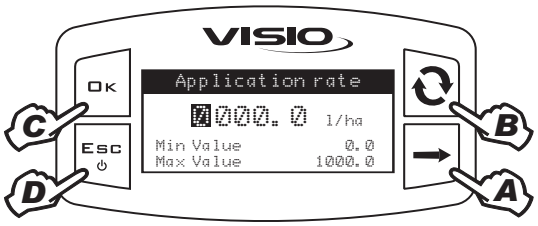
Set the value of the desired application rate.



1) Access the application rate set-up menu
(Settings menu > Job set-up > Application rate).

The display will show the current value below the selected item.

Press OK to edit the application rate.



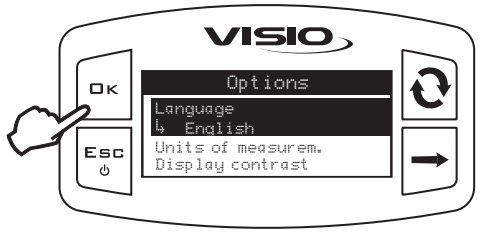
2) Set the value of the application rate:

A) Press to move through digits;
B) Press a few times to edit the highlighted digit;
C) Press to save changes, or;
D) Press to quit the page without confirming changes.

9.4 OPTIONS

9.4.1 Language

Set the desired language.



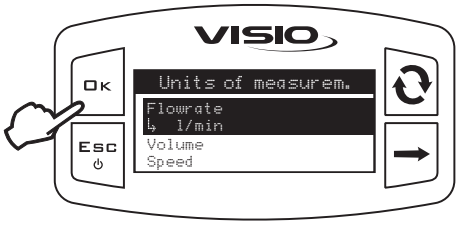
Open language setting menu (Setup menu > Options > Language).
The display will show the current value below the selected item.
Press **OK** to edit language.

1) Select a language through ↻.
2) Press **OK** to save, or **ESC** to quit without saving.

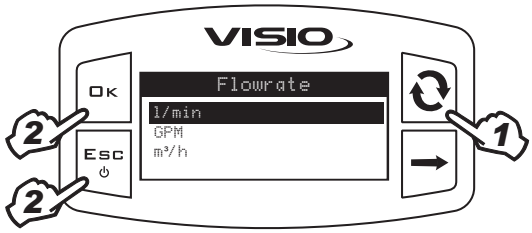
9.5 UNITS OF MEASUREMENT

Set unit of measurement for the values detected by the device.

9.5.1 Rate units of measurement

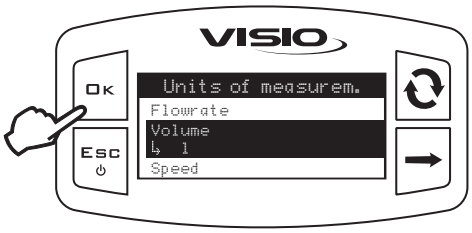


1) Open instant rate unit of measurement setting menu
(Setup menu > Options > Units of measurem. > Flowrate).
The display will show the current value below the selected item.
Press **OK** to select flowrate unit of measurement.

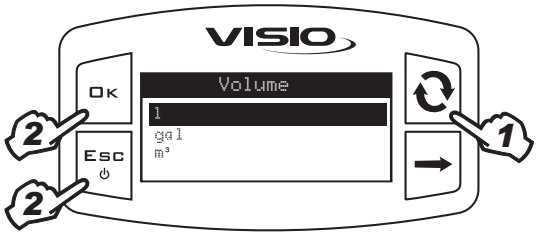


1) Select a unit through ↻.
2) Press **OK** to save, or **ESC** to quit without saving.

9.5.2 Volume units of measurement

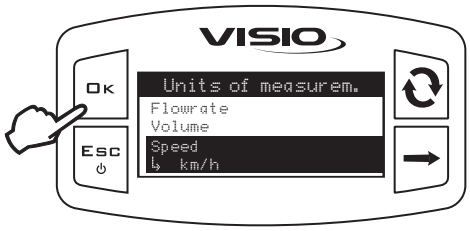


1) Open volume unit of measurement setting menu (Setup menu > Options > Units of measurem. > Volume).
The display will show the current value below the selected item.
Press **OK** to select volume unit of measurement.



1) Select a unit through ↻.
2) Press **OK** to save, or **ESC** to quit without saving.

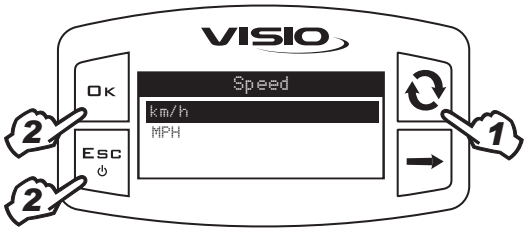
9.5.3 *Speed units of measurement*



Open speed unit of measurement setting menu (Setup menu > Options > Units of measurem. > Speed).

The display will show the current value below the selected item.

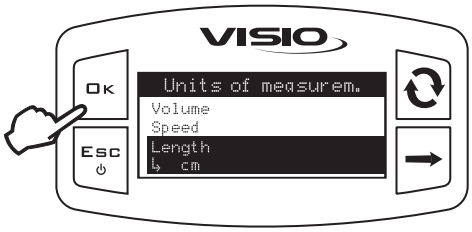
Press **OK** to select speed unit of measurement.



1) Select a unit through .

2) Press **OK** to save, or **ESC** to quit without saving.

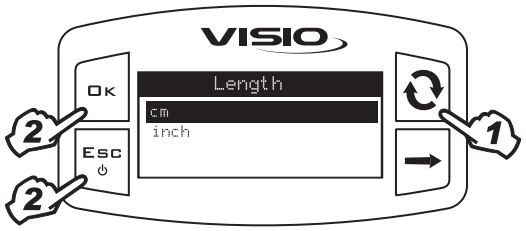
9.5.4 *Length units of measurement*



Open length unit of measurement setting menu (Setup menu > Options > Units of measurem. > Length).

The display will show the current value below the selected item.

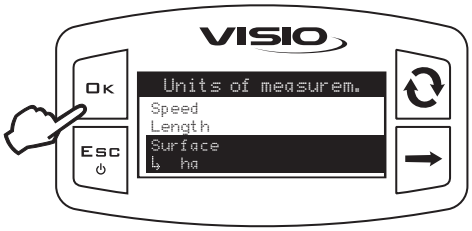
Press **OK** to select length unit of measurement.



1) Select a unit through .

2) Press **OK** to save, or **ESC** to quit without saving.

9.5.5 *Surface units of measurement*



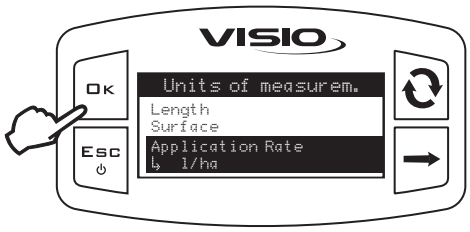
Open surface unit of measurement setting menu (Setup menu > Options > Units of measurem. > Surface).

The display will show the current value below the selected item.

Press **OK** to select surface unit of measurement.

1) Select a unit through .

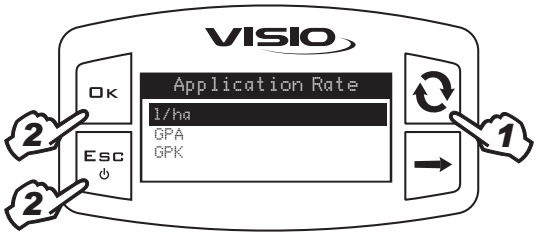
2) Press **OK** to save, or **ESC** to quit without saving.



Open application rate unit of measurement setting menu (Setup menu > Options > Units of measurem. > Application rate).

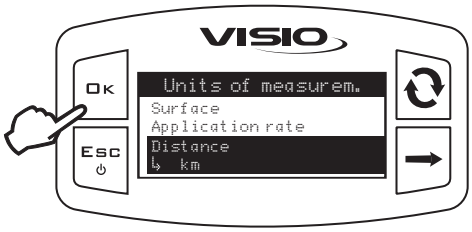
The display will show the current value below the selected item.

Press OK to select application rate unit of measurement.



1) Select a unit through .

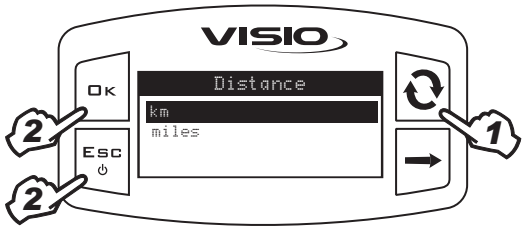
2) Press OK to save, or ESC to quit without saving.



Open distance unit of measurement setting menu (Setup menu > Options > Units of measurem. > Distance).

The display will show the current value below the selected item.

Press OK to select distance unit of measurement.

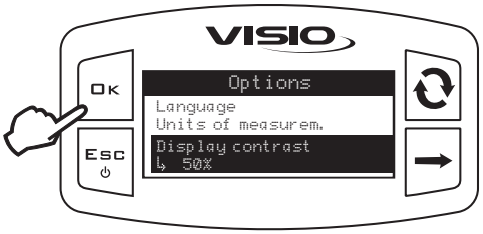


1) Select a unit through .

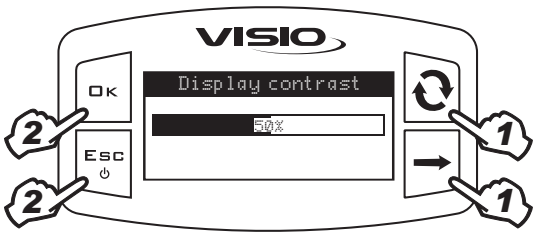
2) Press OK to save, or ESC to quit without saving.

9.6 DISPLAY CONTRAST

Set display contrast.



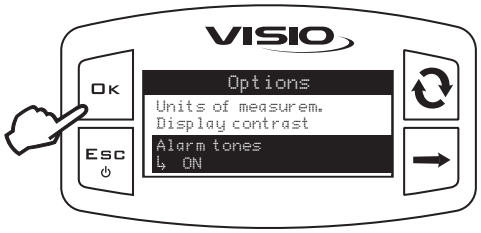
Open display contrast menu (Setup menu > Options > Display contrast).
The display will show the current value below the selected item.
Press **OK** to edit the selected menu item.



1) Set a value through .
Every time you press it, value will increase by 5% up to 100%.
Use key to decrease value by 5%.
2) Press **OK** to save, or **ESC** to quit without saving.

9.7 ALARM TONES

Enable/disable the alarm tones.

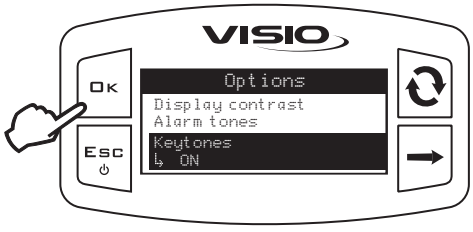


Open alarm tones menu (Setup menu > Options > Alarm tones).
The display will show the current setting below the selected item.
Press **OK** to edit the selected menu item.

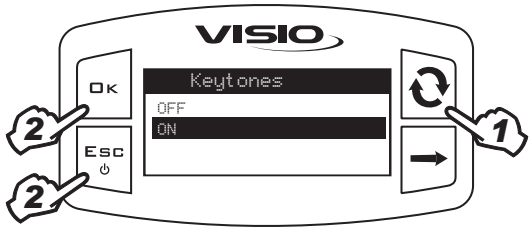
1) Set status through .
2) Press **OK** to save, or **ESC** to quit without saving.

9.8 KEYTONES

Enable/disable keytones.



1) Open keytones menu (Setup menu > Options > keytones).
The display will show the current setting below the selected item.
Press **OK** to edit the selected menu item.

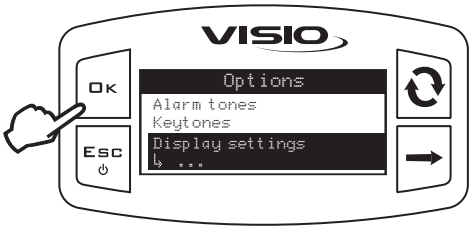


1) Set status through .
2) Press **OK** to save, or **ESC** to quit without saving.

9.9 DISPLAY SETTINGS

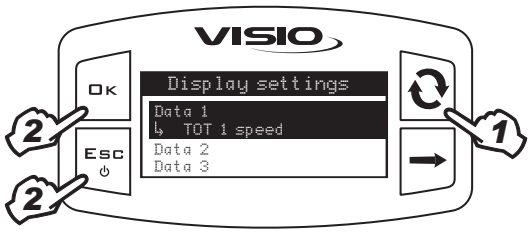
The main page shows the display divided into three horizontal parts.

Every sector can be assigned the desired value.



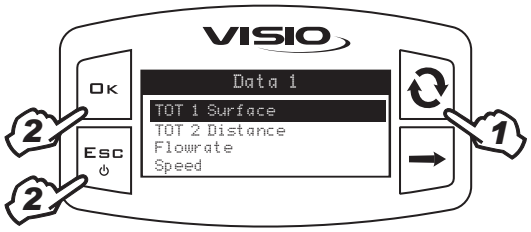
Open Display settings menu (Setup menu > Options > Display settings).

Press **OK** to edit the selected menu item.



1) Select desired value through .

2) Press **OK** to edit, or **ESC** to quit without saving.



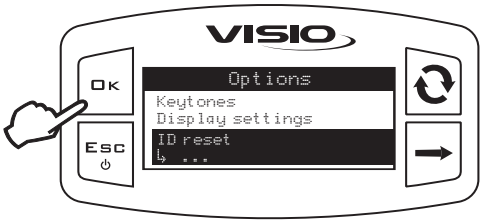
1) Set sector to the required value through .

2) Press **OK** to save, or **ESC** to quit without saving.

Carry out the same procedure for the other 2 values.

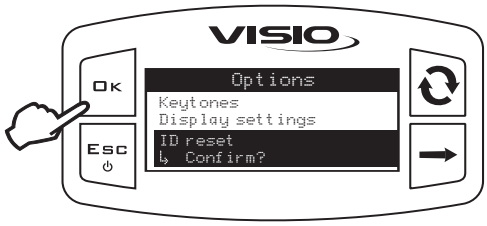
9.10 ID DELETION

This menu allows deleting the identification number (ID) of all the connected Orion Multiflows. Once this procedure is completed, the ID assignment must be repeated in order to restore system correct operation.



Open the ID deletion menu (Setup menu > Options > ID deletion).

Press **OK** to edit the selected menu item.



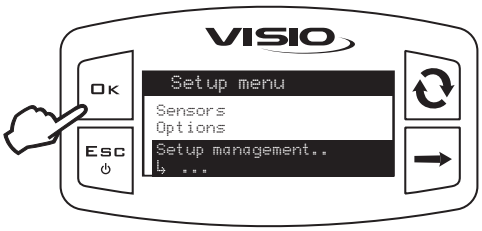
After selecting the item, you will be prompted to confirm deletion.

9.11 SETUP MANAGEMENT

VISIO MULTIFLOW settings can be loaded from or saved on a USB pen drive in order to reconfigure it if required, fix problems or set another VISIO MULTIFLOW with no need to repeat all manual operations.

Once installation is completed, and VISIO MULTIFLOW operation has been checked, we recommend to save all settings onto a USB pen drive.

To be able to use the following functions it is necessary to insert a USB pen drive in the relevant port at the bottom of VISIO MULTIFLOW.



1) Open Setup management menu (Setup menu > Setup management).

Press **OK** to edit the selected menu item.

Load setup

Allows to select a configuration file saved in the USB pen drive and to set VISIO MULTIFLOW again.

WARNING: By loading the SETUP.BIN file contained in the USB pen drive onto the VISIO MULTIFLOW, all current settings will be lost.

1) Select the desired control through .

2) Press **OK** to confirm loading, or **ESC** to quit without saving.

The SETUP.BIN file can be loaded only if it is saved in the USB pen drive root directory.

If setup download involves changing operating mode and using different sensors than the ones in use, make sure that all sensors are DISCONNECTED from the device.

Press OK to confirm loading.

Reconnect sensors.

Save setup

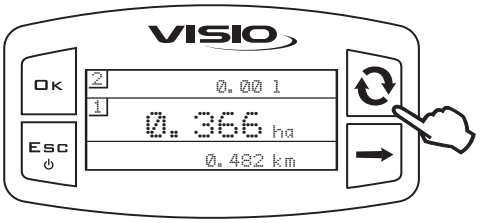
Allows saving VISIO MULTIFLOW configuration file on the USB pen drive: it will be possible to load it again any time the same settings need to be retrieved.

1) Select the desired control through .

2) Press **OK** to confirm saving, or **ESC** to quit without saving.

If a SETUP.BIN file is already present in the USB pen drive root directory, the file will be overwritten.

10. USE

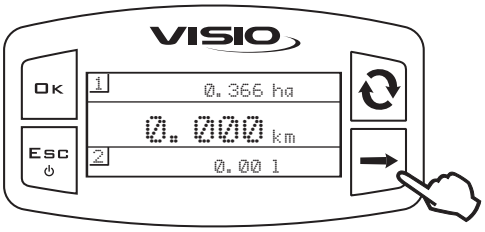


In the 3 areas of the monitor, VISIO MULTIFLOW will display the parameters set in the **Display settings** menu.

Press key several times to view a value in extended mode until value is on display central part.

10.1 PARTIAL TOTALIZER RESET

To reset a totalizer you must view it in extended mode.
Press key several times until value to be reset is at the central area of the display.

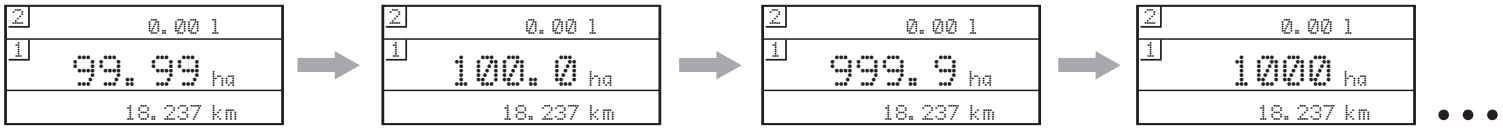


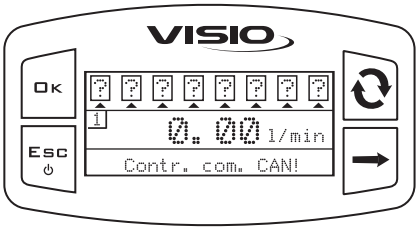
Press key for two seconds.

Totalizer resets.

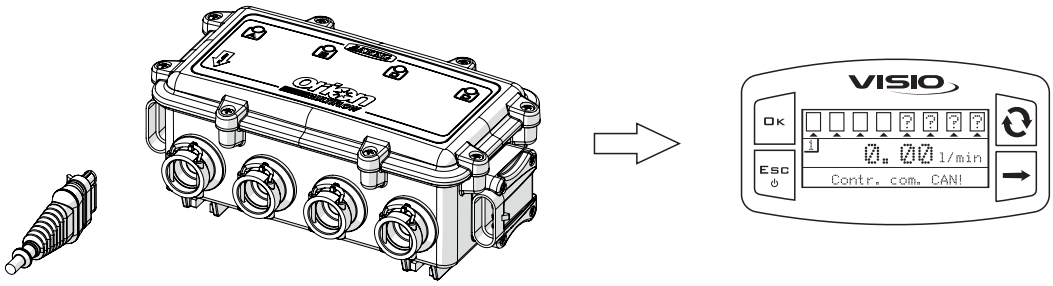
Setting can or cannot be reset, depending on set value.

Symbol ----- indicates that totalizer exceed maximum value that can be displayed.
Totalizers have a floating point and show a maximum of 4 digits.
Two decimals are shown up to 999.99. One decimal is shown after that and 0 decimals are shown when value reaches 10,000.





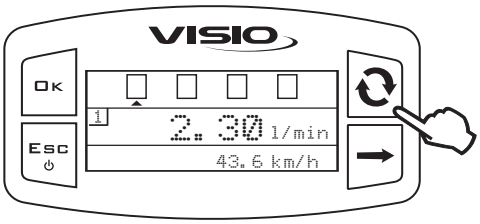
The main screen includes the rectangles identifying the single channels.
The ? symbol inside the rectangles indicates that no sensors have been detected so far.



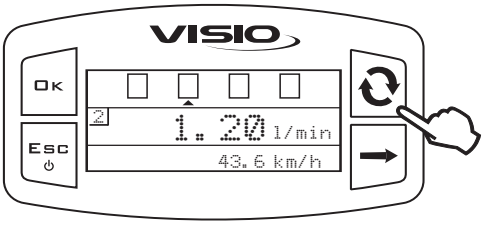
Once the first sensor is connected, the first 4 rectangles turn off on the screen, indicating that the detection has been performed correctly.

When a new flowmeter is connected, the following 4 rectangles will turn off as well.

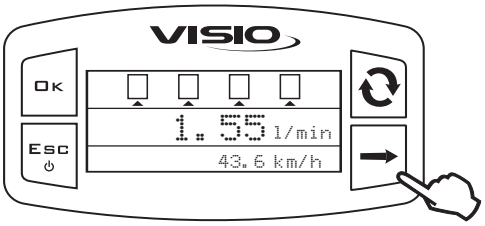
Press for two seconds to switch from the 3-display mode to the mode showing the situation of the rows of the connected flowmeters graphically (from 1 to 16).



Pressing , the central area of the display will show the various speed, applicationrate and flowrate measurements in extended mode.
The number inside the box on the left and the arrow below the rectangle indicate the interrogated row.

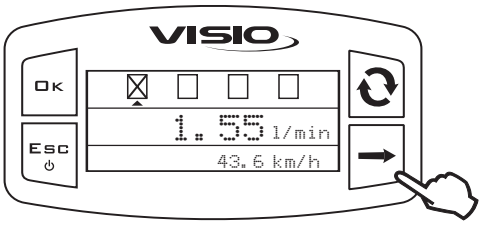


Press to move to the next row.



After selecting the last row, by pressing the central area shows the detected average value for all the rows.

The arrow is displayed below every rectangle.



Press or two seconds to disable the reading of the data for the row indicated by the arrow.
An X appears inside the rectangle.

According to the detected values, the rectangles may present in the following modes:

☒	Row is disabled. The quantities measured on this channel are not used in other counts.
☐	The spray rate of this row corresponds to the required one.
▀	The value is higher than the set limits
▄	The value is lower than the set limits
!	General error on the row. Within the menu, the type of error can be checked (e.g. temperature, power supply, etc.)
?	The device does not detect the Multiflow corresponding to this row

10.2 TEST

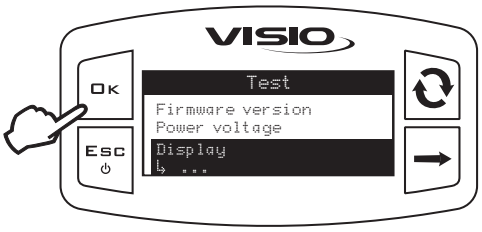
This menu allows user to view some data and carry out an operation test of VISIO MULTIFLOW:

- Firmware version:
the display shows the firmware version installed.

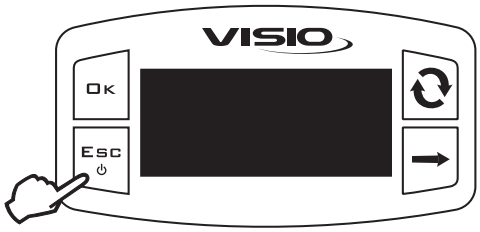
- Battery voltage:
the display shows the power voltage of the device.

10.3 DISPLAY TEST

Display test checks the device display correct operation.



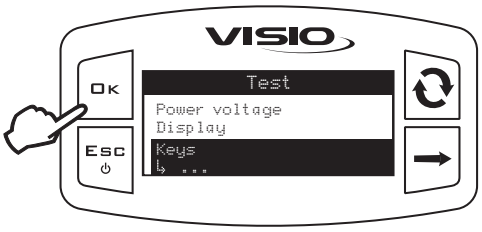
1) Open display test menu (Setup menu > Test > Display).
Press **OK** to perform the test.



All pixels on display are turned on.
Press **ESC** to go back to previous page.

10.4 KEYS TEST

Keys test checks the device keys correct operation.

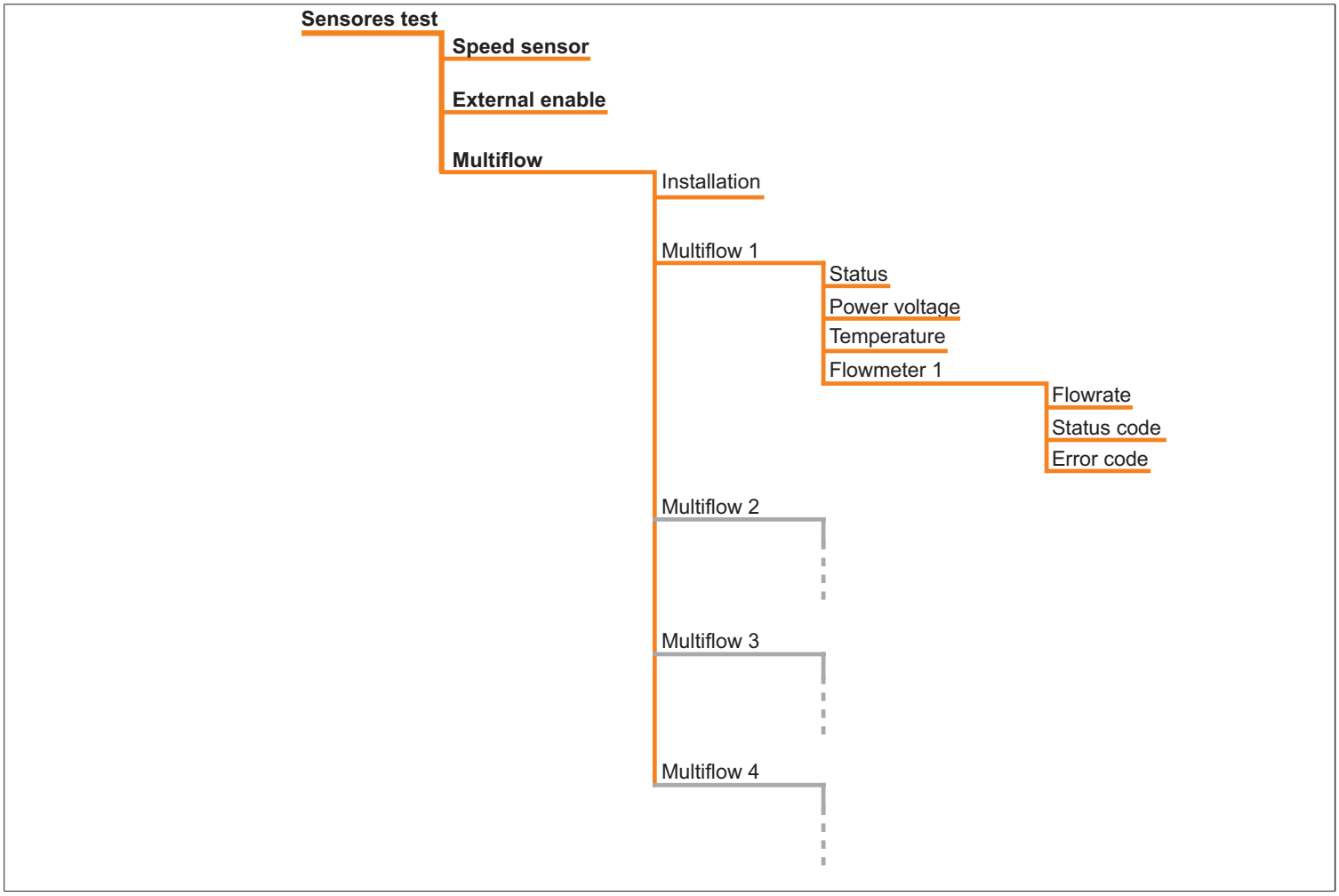


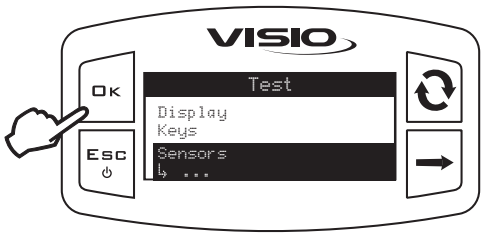
Open keys test menu (Setup menu > Test > Keys).
Press **OK** to perform the test.

1) Press any key and the corresponding display area will turn on.
Press **ESC** to quit: as soon as you acknowledge the switch-on on of the corresponding area on the display, device will go back to previous page.

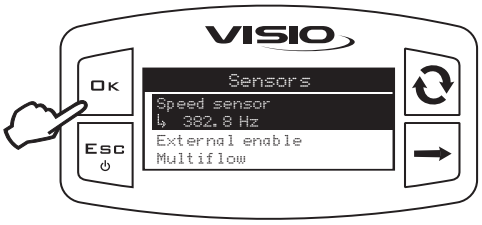
10.5 SENSORS TEST

Sensors test checks correct operation of the sensors connected to the device.





Open sensors test menu (Setup menu > Test > Sensors).
Press **OK** to perform the test.

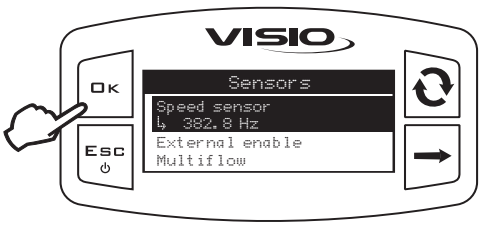


The display will show the current sensor reading below the selected item.

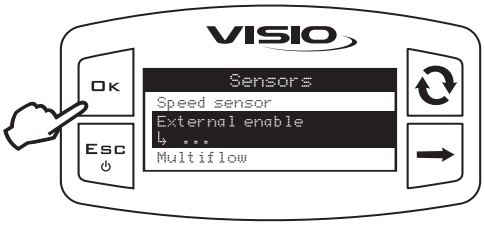
1) Select required sensor through .

2) Press **ESC** to quit.

10.5.1 Test speed sensors



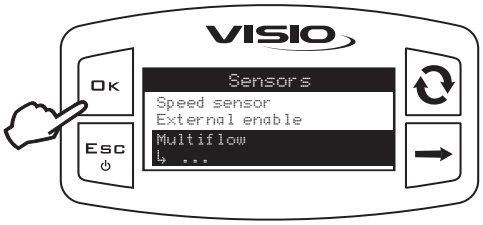
The display will show the current sensor reading below the selected item .



The display shows the current external activation been in use.

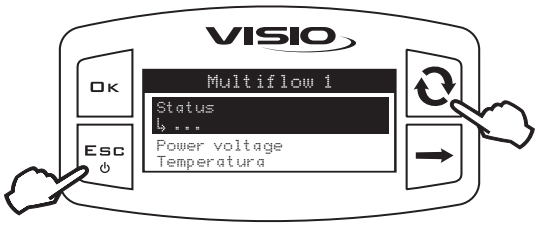
10.5.3 Multi flowmeters test

This menu allows to get information about each multi flowmeter and the corresponding flowmeters.



Open Multi flowmeters test menu (Setup menu > Test > Sensors > Multi flowmeters).
Press **OK** to perform the test.

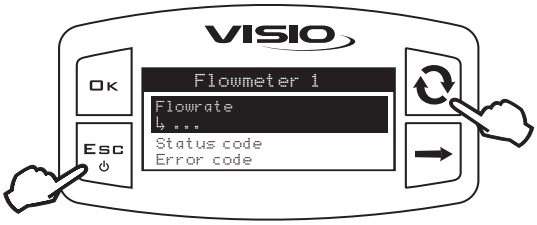
1) Select through key.
2) Press **ESC** to quit.



For each multi flowmeter installed, the following information may be checked:

- Status;
- Power supply voltage;
- Temperature;
- Flowmeter 1;
- Flowmeter 2;
- Flowmeter 3;
- Flowmeter 4;

Use to scroll the information to be displayed.



For each row of the flowmeter (Flowmeter 1,2,3,4) you can also check: **Flowrate** , **Status code** and **Error code**.

Use to scroll the information to be displayed.

Status code		Error code	
0	measurement disabled	1	wrong calibration
1	measurement enabled, liquid not flowing	2	liquid not detected
2	measurement enabled, liquid flowing	4	wrong power supply
3	measurement suspended / device busy	8	overtemperature

11. MAINTENANCE / DIAGNOSTICS / REPAIRS

- Clean only with a soft wet cloth.
- Do not use aggressive detergents or products.
- Do not clean equipment with direct water jets.

11.1 Troubleshooting

FAULT	CAUSE	REMEDY
VISIO MULTIFLOW is off or does not switch on	No power supply	Check power cable connections
	Device is OFF	Press the ON key
VISIO MULTIFLOW shows wrong data	Wrong setup	Check displayed data setup
	Sensor fault	Contact the nearest Assistance Center
	VISIO MULTIFLOW fault	

12. TECHNICAL DATA

Description	VISIO MULTIFLOW
Display	Graphic LCD, 128 x 64 pixels, back-lighting
Power supply voltage	9 ÷ 16 Vdc
Protection against short-circuit	•
Protection against polarity inversion	•
Max. frequency	1,2 KHz
Digital output - Max current	100 mA
Maximum power input (with no sensors connected)	160 mA
Operating temperature	-20 °C ÷ 70 °C -4 °F ÷ +158 °F
Storage temperature	-30 °C ÷ 80 °C -22 °F ÷ +176 °F
Size	126 x 79 x 66 mm
Weight	245 g

13. END OF LIFE DISPOSAL

Dispose of the system in compliance with the established legislation in the country of use.

14. SETUP MENU

	Data	Min.	Max.	Default	UoM	Notes
Alarms	**Flowrate**	0.1	1000.0	OFF	l/min.	Alarm can be disabled by setting value to "OFF"
	Speed	1.0	100.0	OFF	km/h	Alarm can be disabled by setting value to "OFF"
	Application rate	0.1	100.0	OFF	%	Alarm can be disabled by setting value to "OFF"
Display	**Contrast**	0	100	50	%	--
Options	**Language**	-	-	English	-	**Available languages:** Italiano, English, Español, Português, Français, Deutsch, Cesky, Polski, Русский, Magyar, ニホン.
	Flowrate units of measurement	-	-	l/min.	l/min.	**Available units of measurement:** l/min, GPM, m^3/h
	Volume units of measurement	-	-	l	l	**Available units of measurement:** l, gal, m^3
	Speed units of measurement	-	-	km/h	km/h	**Available units of measurement:** km/h, MPH
	Length units of measurement	-	-	cm	cm	**Available units of measurement:** cm, inch
	Surface units of measurement	-	-	ha	ha	**Available units of measurement:** ha, ac, ksqft
	Application rate units of measurement	-	-	l/ha	l/ha	**Available units of measurement:** l/ha, GPA, GPK
	Distance units of measurement	-	-	km	km	**Available units of measurement:** km, miles
Job setting	**Number of rows**	1	16	1	nr.	--
	Inter-row width	0.1	1000.0	0001.0	cm	**Available units of measurement:** cm, inch
	Application rate	0.0	1000.0	0000.0	l/ha	**Available units of measurement:** l/ha, GPA, GPK
Manual calibration	**Speed sensor**	0.10	200.0	060.0	cm/pls	**Available units of measurement:** cm/pls

15. GUARANTEE TERMS

1. ARAG s.r.l. guarantees this apparatus for a period of 360 days (1 year) from the date of sale to the client user (date of the goods delivery note).
   The components of the apparatus, that in the unappealable opinion of ARAG are faulty due to an original defect in the material or production process, will be repaired or replaced free of charge at the nearest Assistance Center operating at the moment the request for intervention is made. The following costs are excluded:
   - disassembly and reassembly of the apparatus from the original system;
   - transport of the apparatus to the Assistance Center.
2. The following are not covered by the guarantee:
   - damage caused by transport (scratches, dents and similar);
   - damage due to incorrect installation or to faults originating from insufficient or inadequate characteristics of the electrical system, or to alterations resulting from environmental, climatic or other conditions;
   - damage due to the use of unsuitable chemical products, for spraying, watering, weedkilling or any other crop treatment, that may damage the apparatus;
   - malfunctioning caused by negligence, mishandling, lack of know how, repairs or modifications carried out by unauthorized personnel;
   - incorrect installation and regulation;
   - damage or malfunction caused by the lack of ordinary maintenance, such as cleaning of filters, nozzles, etc.;
   - anything that can be considered to be normal wear and tear.
3. Repairing the apparatus will be carried out within time limits compatible with the organizational needs of the Assistance Center.
   No guarantee conditions will be recognized for those units or components that have not been previously washed and cleaned to remove residue of the products used;
4. Repairs carried out under guarantee are guaranteed for one year (360 days) from the replacement or repair date.
5. ARAG will not recognize any further expressed or intended guarantees, apart from those listed here.
   No representative or retailer is authorized to take on any other responsibility relative to ARAG products.
   The period of the guarantees recognized by law, including the commercial guarantees and allowances for special purposes are limited, in length of time, to the validities given here.
   In no case will ARAG recognize loss of profits, either direct, indirect, special or subsequent to any damage.
6. The parts replaced under guarantee remain the property of ARAG.
7. All safety information present in the sales documents regarding limits in use, performance and product characteristics must be transferred to the end user as a responsibility of the purchaser.
8. Any controversy must be presented to the Reggio Emilia Law Court.

16. EU CONFORMITY DECLARATION

The declaration of conformity is available at www.aragnet.com, in the relevant section.

Notes

Only use genuine ARAG accessories or spare parts to make sure manufacturer guaranteed safety conditions are maintained in time. Always refer to ARAG spare parts catalog

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