



VibrationsMätInstrument



SpectraLive

Operator's Manual



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Document revision: Rev 5
Ref. VM110-103 November 2007

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1 Introduction

SpectraLive® software is an easy-to-use application, dedicated to display measurements coming from VM110 - Automatic data Collector.

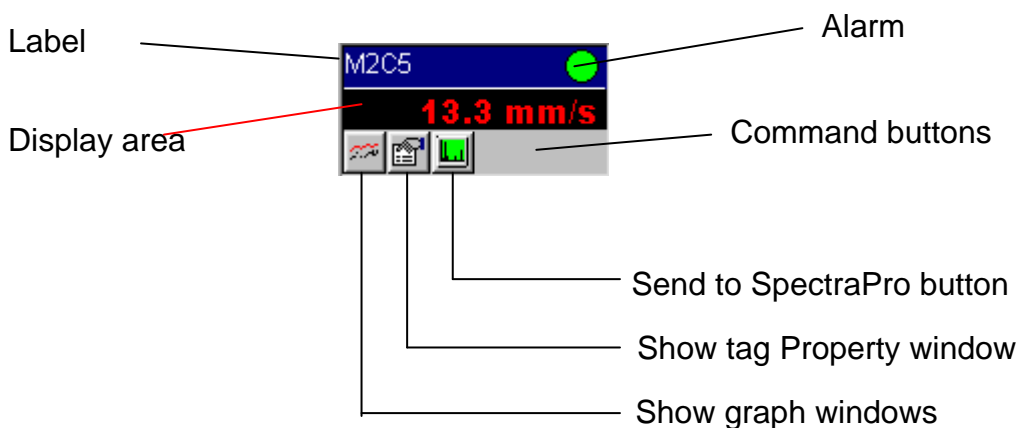
The VM110 units are connected with a various range of transducers placed on vibrating machines.

The **SpectraLive**® software reads the measurements from all VM110 units connected to the computer and displays the measurement results in *tags*.

The tags are placed in four display *pages*.

2 SpectraLive® tags

A tag is a visual connection with a measurement. Each tag has a display area, an alarm indicator, a labeling area and command buttons:



- The *Label area* shows the parameter *tag name*.
- The *Display area* shows the measurement results and parameter unit.
- The *Alarm indicator* shows the alarm (If set) and also the tag status (fault indicator).

The following fault message can appear in the Display area:



Transducer failure message: The transducer fail or the cable between transducer and VM110 unit is defective.



Communication Error: **SpectraLive**[®] can't read the measurement from the unit. Possible cause: defective network or unit is switched off



Input channel is wrong set. (E.g. a Envelope tag is assigned to a channel with displacement vibration transducer.)



Input channel isn't measured yet. Probably the unit is just started and the measurement cycle is not completed.

In all these cases the alarm indicator has *magenta* color. In normal running condition the indicator can be:

- *Green* indicates that the measurement is under the alarm limits.
 - *Yellow* indicates a Warning alarm
 - *Red* indicates a Danger alarm.
 - *Grey* indicates that no alarm is set for this tag.
- The *Command button* area can be used as follows:
- Show graph button. Activate the graph window to show trends, spectrum, orbit, waveform or orders.
 - Send to **SpectraPro**[®]. When this button is pressed, the measurements belonging to the machine are sent into the **SpectraPro**[®] database.
 - Property button. Activate the channel **Property** windows with all channel settings.

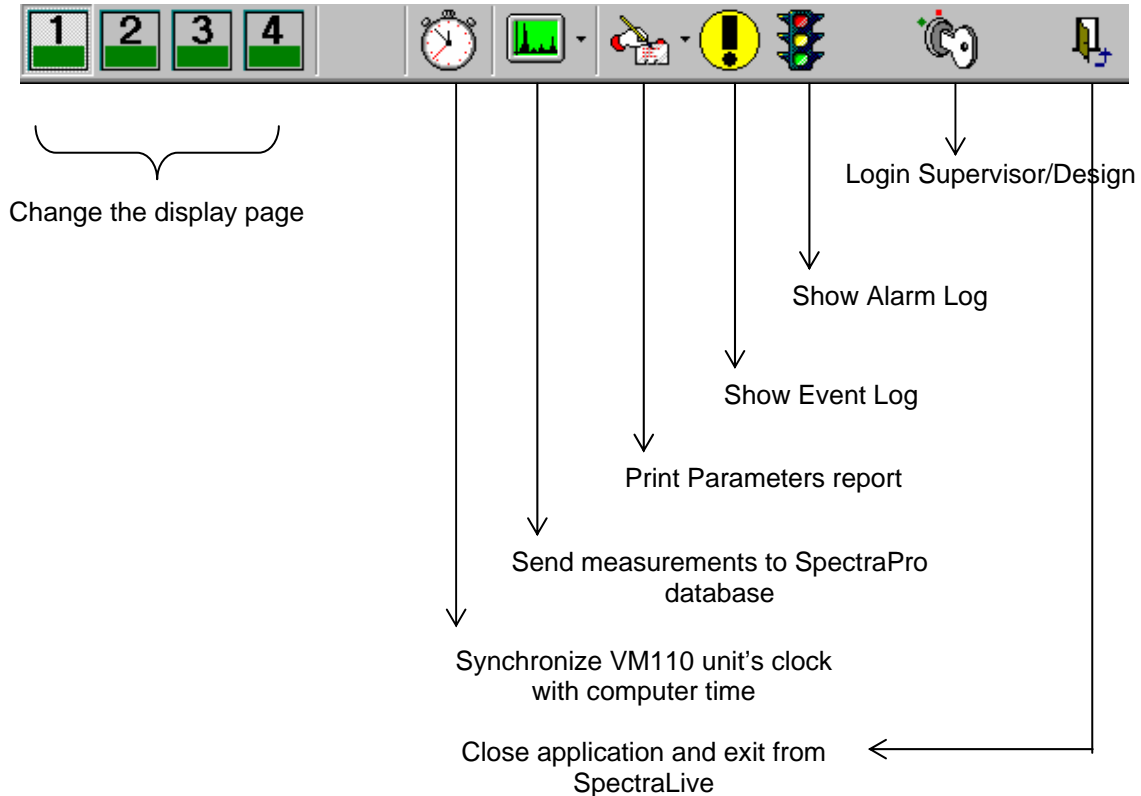
The following type of tags can co-exist in a **SpectraLive**[®] project:

- *Vibration tag* associates with all type of vibration transducers (acceleration, velocity or displacement).
- *Envelope tag* associates with acceleration transducers.
- *Process tag* associates with any process transducer (e.g. temperature, pressure, flow).
- *Displacement tag* associates with trust, thermal growth or case expansion transducers.
- *Speed tag* associates with a speed transducer.

Each type of tags has its own properties. The properties are sett during the project design and can be shown pressing the tag **Property** button. In the *Addendum A* all the tag properties are described in details.

3 SpectraLive® toolbar

In the top of the program window a series of buttons are placed:



First four buttons are dedicated to change the displayed page. The measurements can be shown in up to four separate windows. Clicking these buttons the active page will be changed.

3.1 Login button (Supervisor/Designer)

This button allows the user to entry in the *Supervisor mode*. This mode is password protected. The **Supervisor** has the followings supplementary rights:

- Can open a new project (application) file.
- Can set a **SpectraPro**® database to the application.
- Can set the destination address in **SpectraPro**® database for each measurement.
- Can adjust “live zero” for displacement channels.

For details see *Supervisor Mode* chapter.

3.2 Show Alarm Log button

When this button is pressed an *Alarm Log* is displayed. Changes from **Normal** condition to **Warning** or from **Warning** to **Danger** condition are memorized in a Log file. This file can be also printed.

3.3 Show Event Log button

When this button is pressed an *Event Log* is displayed. The following events are listed:

- Start and stop application (program)
- Login and logout
- Communication problem with VM110 units
- Transducers failure.

This file can be also printed out.

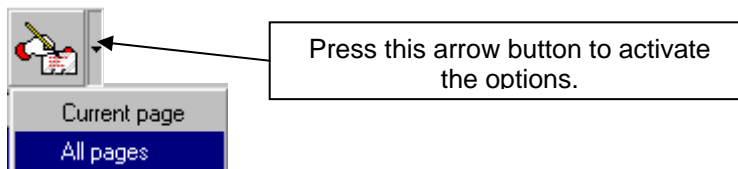
3.4 Print Parameters report button

When this button is pressed, a *Parameters report* is shown. Last measurement values are displayed. Also the Alarm status is shown. The report can be printed.

You can choice:

- To show only the parameterrs from active page
- To show all the parameters from all four pages.

This selection can be done using the arrow button located in the right part of the button:



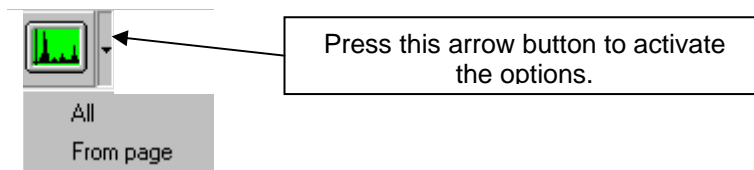
3.5 Send measurements to SpectraPro® button

When this button is pressed, all the measurements having a **SpectraPro®** addresses are send to the active **SpectraPro®** database.

Now you can:

- Send only the parameterrs from active page or
- Send all the parameters from all four pages.

This selection can be done using the arrow button located in the right part of the button:



5.6 Synchronize clock button

When this button is pressed, all the the active VM110 units connected to the computer will be synchronize the time with computer date and hour. Using this command you can be sure that the measurements date is correct.






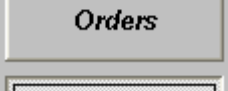
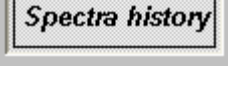
4 SpectraLive® plot

In the Graph windows a series of graphs (plots) can be shown :

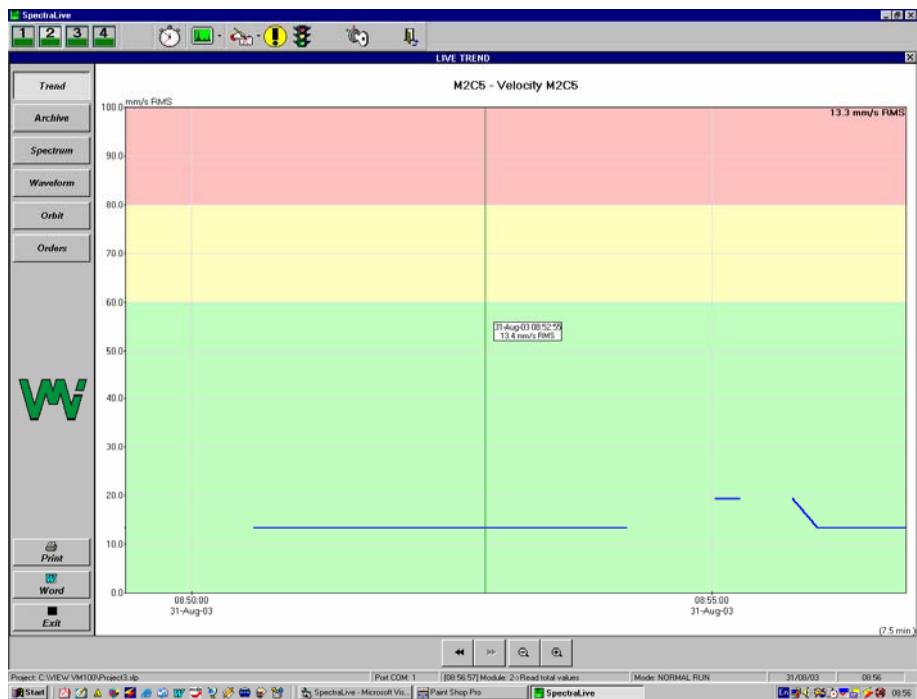
- Current trend plot (last eight hours)
- Archive trend plot (last five days)
- Spectrum plot or Envelope Spectrum plot
- Waveform plot
- Orbit plot
- Orders plot
- Spectrum history plot

When the Graph window gets activated (pressing Graphs button of any tag), the current trend is shown by default.

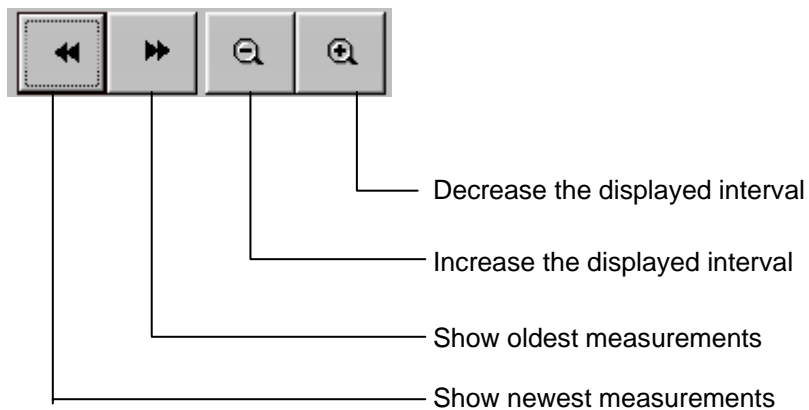
Pressing one of the buttons on the left also other plots can be shown.

	Not all the plots are available for all type of measurements. The available plots can be enabled during configuration of the channel Settings or in SpectraLive (Pre-stored spectra).
	
	Orders plot is available only if the input channel has a phase associated.
	For process and displacement measurements only trends are enabled.
	For Envelope measurements only trend and spectrum plots are enabled.
	
	Spectra history (pre-stored spectra, waterfall plot) can be selected in SpectraLive.

4.1 Trend plot

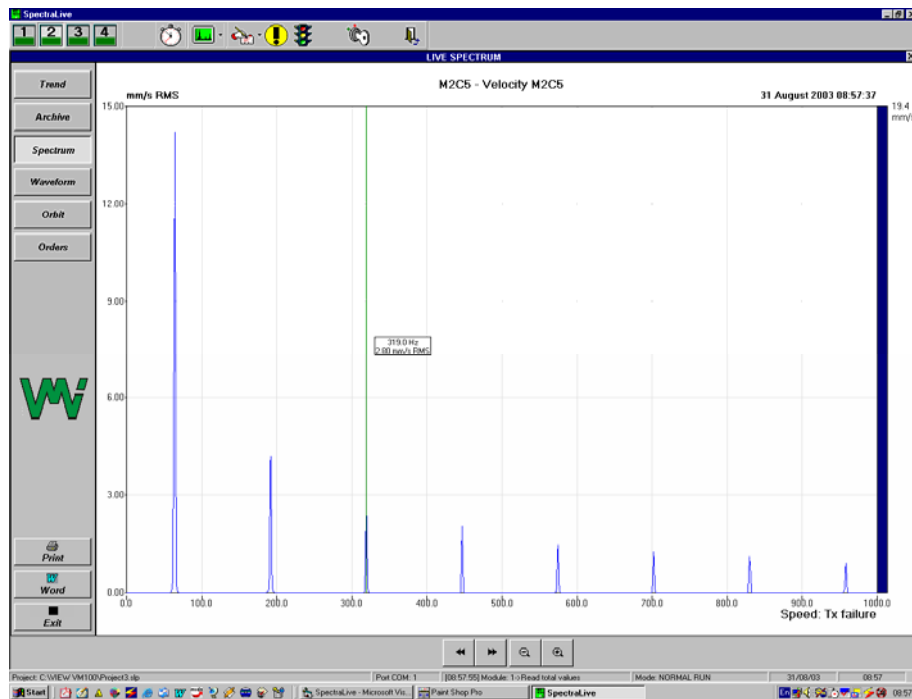


Trend plot can be for current measurements (last 8 hours) or for archive measurements (last 5 days). Current trend is live and is updated basically with 5 seconds interval. Archive trend plot is static. The following buttons are available to change the displayed interval:

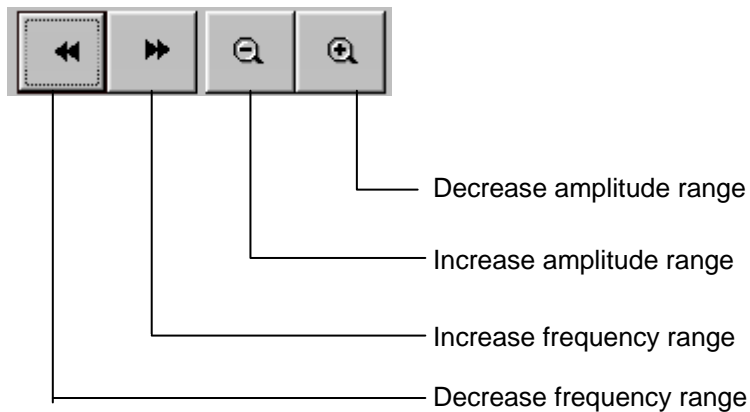


Also a cursor is available, showing the value of the measurement in the cursor position. Just click the plot and the cursor will appear. The cursor can be moved with the mouse.

4.2 Spectrum plot

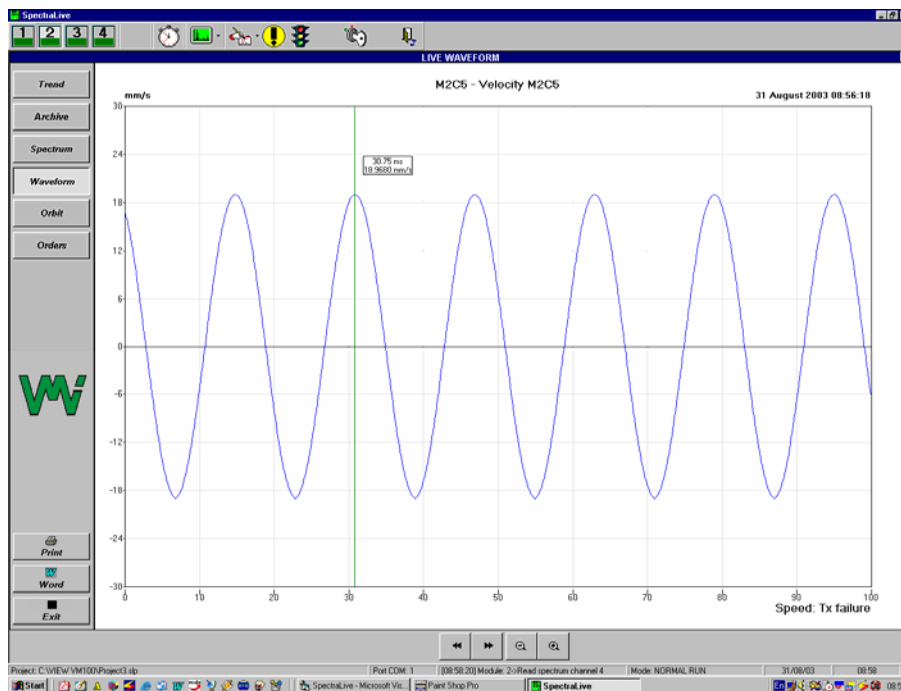


Spectrum plot shows the last spectrum measured from the selected channel. Spectrum plot is live and is updated basically on 10 - 20 seconds interval. The following buttons are available to change the plot shape:

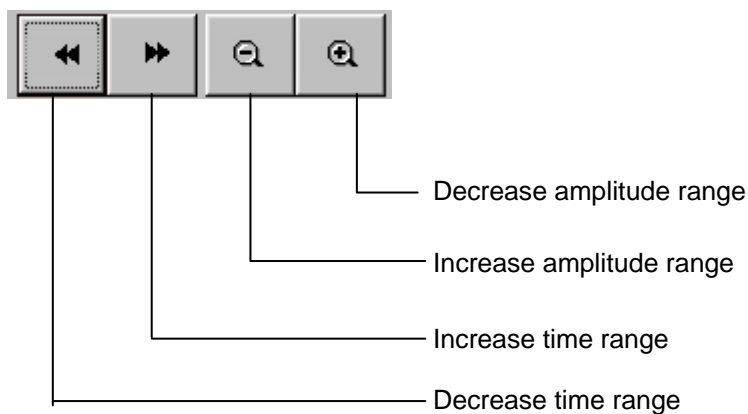


Also a cursor is available, showing the value of the measurement in the cursor position.

4.3 Waveform plot



Waveform plot shows the last waveform measured from the selected channel. Waveform plot is live and is updated basically on 10 seconds interval. The following buttons are available to change the plot shape:

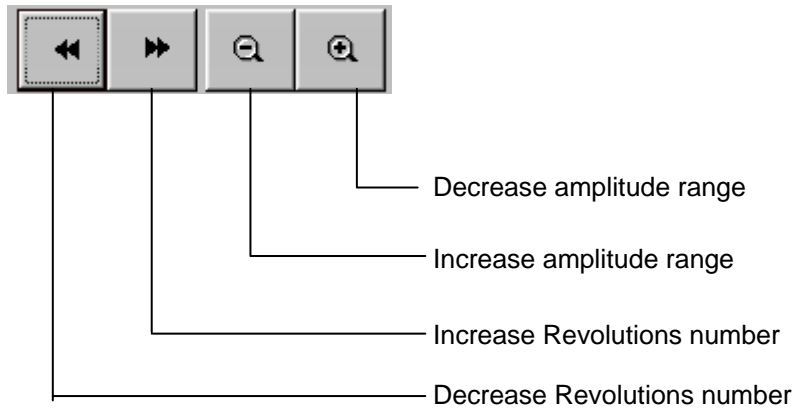


Also a cursor is available, showing the value of the measurement in the cursor position.

NOTE! The plot shows the wave form in the transducer unit, not in the show unit. For example, if the thermometer flow sensor measures in Volts, but the show unit is liters/minute, the plot shows Volts.

4.4 Orbit plot

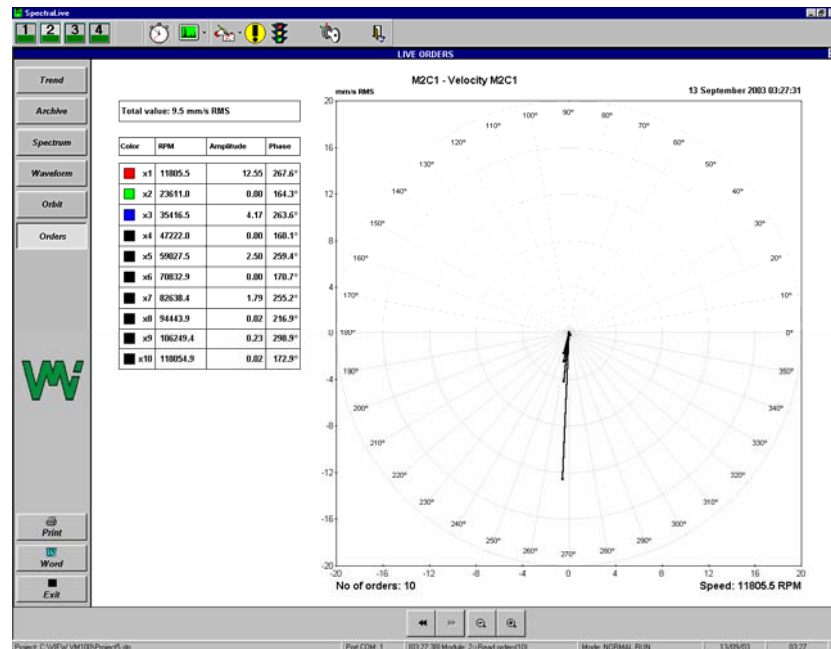
Orbit plot shows the latest waveform measured from the selected pair of channels. Orbit plot is live and is updated basically on 10 seconds interval. The following buttons are available to change the plot shape:



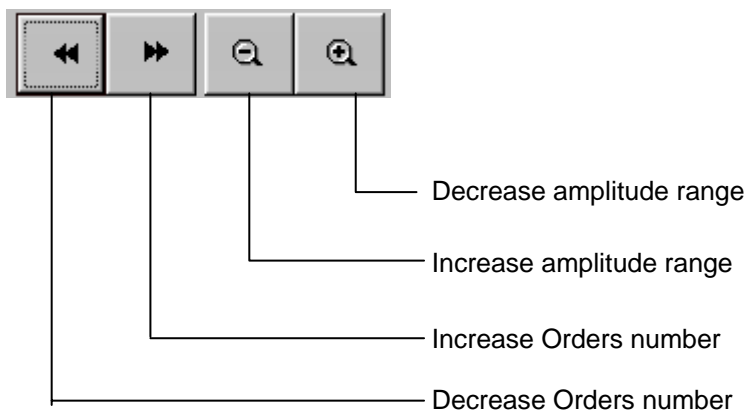
Orbit plot can be shown only, if the both twin channels of the VM110 unit are set for vibration and have the same show unit and average.

4.5 Orders plot

Orders plot shows the latest measurement from the selected channel. Orders plot is live and is updated basically on 10 seconds interval. First 10th orders can be shown.



The following buttons are available to change the plot shape:

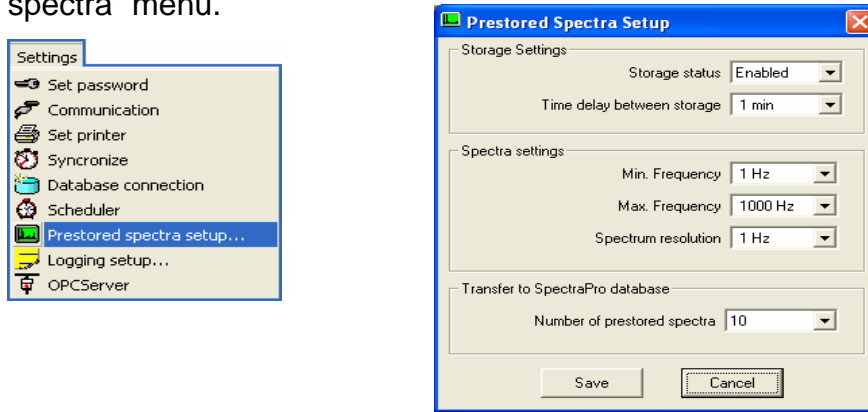


Orders can be shown only if the channel has a phase associated.

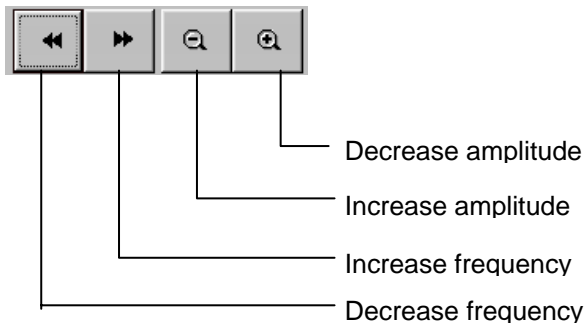
4.6 Waterfall plot

This plot is similar with the spectrum plot, but a history of latest (none) 1 to 10 spectra is shown.

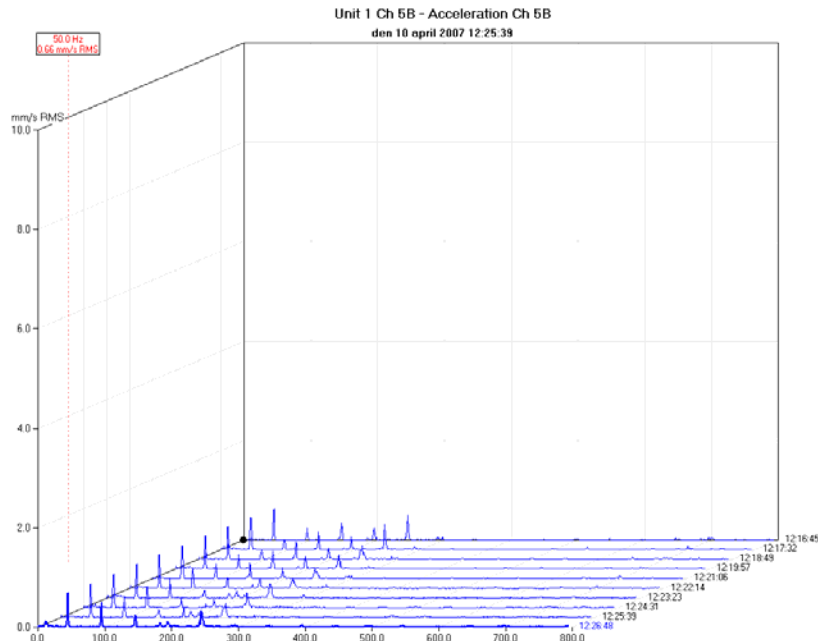
The spectrum resolution and frequency range can be set in the “Prestored spectra” menu.



The spectrum acquisition time can be from 1 to 10 minute. The following buttons are available to change the plot shape:



Also a cursor is available, showing the value of the measurement in the cursor position.



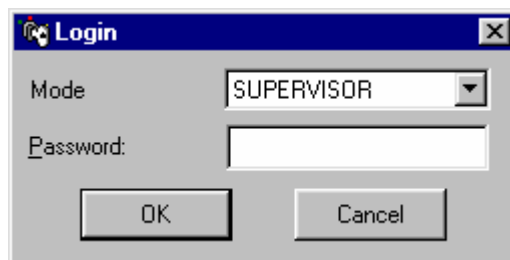
5 Supervisor Mode

The Supervisor has the followings supplementary rights:

- Can open a new project (application) file.
- Can set a **SpectraPro**® database to the application.
- Can set the destination address in **SpectraPro**® database for each measurement.
- Can adjust “live zero” for displacement channels.

To access the Supervisor Mode operation the user must *log in*.

To do this press the Login toolbar button. The following window will appear:




Now type the password and press OK.

If the password is recognized by the system, a menu bar will appear on the Main window top.

To exit the supervisor mode press the same Login toolbar button.

5.1 Synchronizing the VM110 clock

While calibrating the VM110 the VMI AB has synchronized the instrument clock, but the time is Swedish. So it is clever to set the time according to the actual time zone. That you do do easily by pressing clock synchronizing button , when the instrument is connected to the computer.

5.2 Opening a new project file

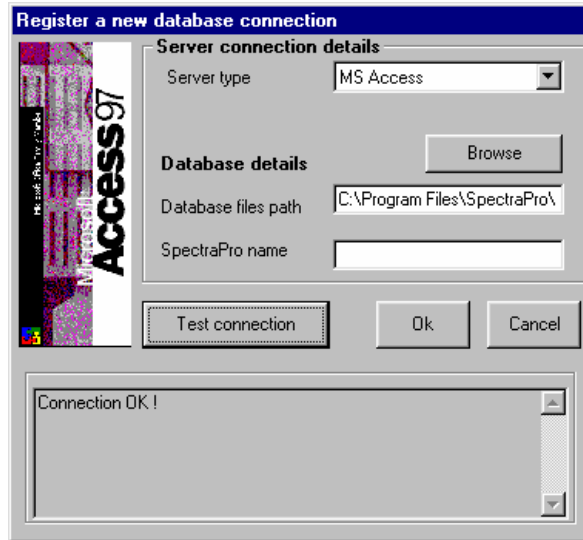
Supervisor can open a new project file using the **Open** command on **File** menu. **SpectraLive**® project has the extension *.slp*.

5.3 Establish connection with a SpectraPro® database

The Supervisor has the right to set the **SpectraPro®** database where the measurement can be send regularly. In this way, using the **SpectraPro®** software, a complete diagnosis can be performed.

From the **Settings** menu select the command **Database connection**.

The following dialog window will appear:



Select first the **Server type**.

If the Server is MS Access (most used), press **Browse** button and select the Database file (In **SpectraPro®** the databases for MS Access has the extension .sp3).

Optionally give an alias name for the selected database.

Press **Test connection** button to test the communication with **SpectraPro®** database.

Finally, press **OK** button to save the **SpectraPro®** database in the project file.



For Oracle and MS SQL Server please consult SpectraPro® Instruction Manual.

5.4 Set SpectraPro® destination

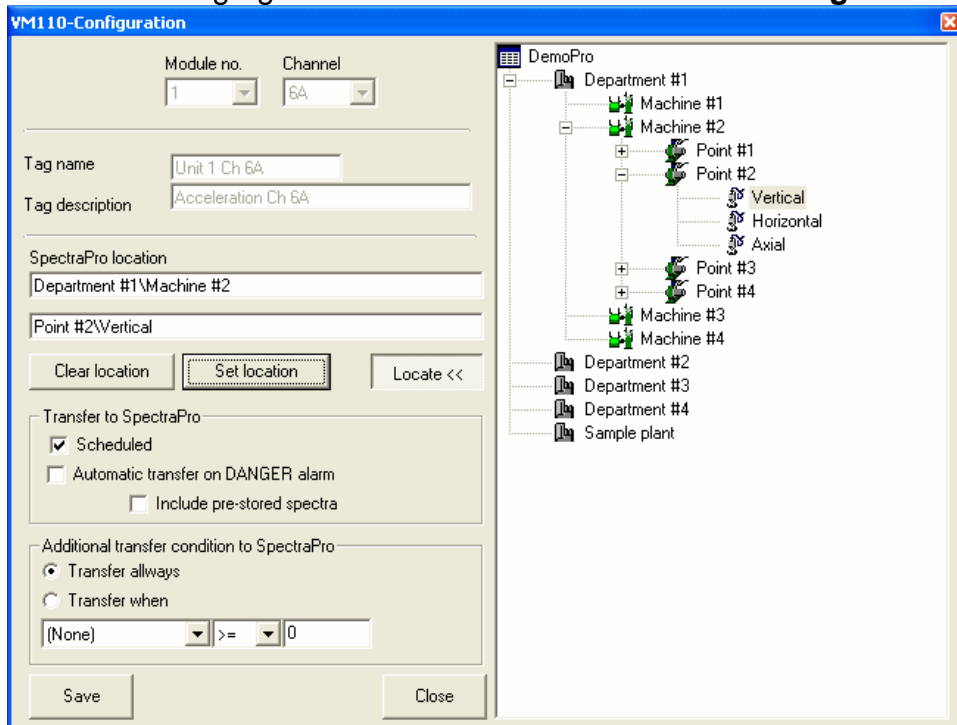
Measurements of each tag can be transferred to a destination (point or direction) in the **SpectraPro**® database. Destination must be unique for each measurement. NOTE! The envelope is placed at the same location as the acceleration.

The following data will be transferred in the **SpectraPro**® database, depending on the tag type:

- For vibration type tags: Total vibration value, time signal (when chosen in **SpectraPro**®), Envelope (if set) and spectrum. This information will be transferred to a *Direction* belonging to a machine
- For all other tags: value. These values will be transferred to a *Manual Point* destination.

For each tag, the destination can be set as follows:

- On each tag right-mouse menu select command **Configure**.



1. In the **Configuration** windows press button **Locate**. If the communication with **SpectraPro**® database is active, the database tree will be shown:
2. With the mouse, click the destination item in the tree (for vibration tag always select a *Direction* and for other tag types select a *Manual Point*).
3. Once selection made, click Set button to save the setting in the **SpectraLive**® project and **Save!**

- The **Configuration** window open select another tag (just click it). Repeat the same procedure up to all tags that will be set.

If an identical destination is set for more than one tag, a warning Message will appear.

5.5 Setting “live zero” for displacement tags

Displacement tags have three more buttons:

- Zero button
- Increase button
- Decrease button

These buttons are enabled only in Supervisor Mode:



The Displacement tags are used to display trust, relative shaft thermal grow or case expansion (absolute thermal grow). For all these measurements the normal operation position is not the zero voltage coming from the transducer, but any value within range named as “live zero”.

When the shaft (or case) is in normal position the indication must be, generally, zero. Pressing the **Zero** button the actual indication will be compensated to zero.

Sometimes, the normal operation position must be set to a non-zero value. If this is the case, use **Increase** (or **Decrease**) buttons to adjust the indication to a proper value. The offset value will be memorized in the project file.



Don’t forget to exit Supervisor Mode, when the settings are completed. Use command Logout from the File menu to do this.

5.6 Changing the Supervisor password

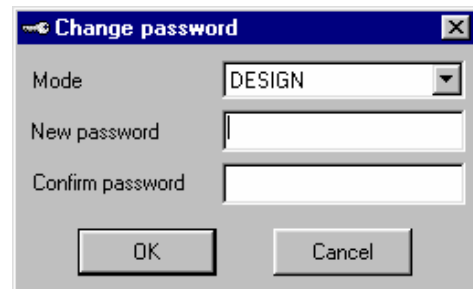
When a project is created, the default Supervisor Mode password is “SUPERVISOR”. The project designer can change the default password.

Also the Supervisor has right to change his own password.

Select from the **Setting** menu the command **Change password**.

The Change password windows will appear:

Select the SUPERVISOR mode and enter the new password in both “*New password*” and “*Confirm password*” fields. Press **OK** to save the new password.



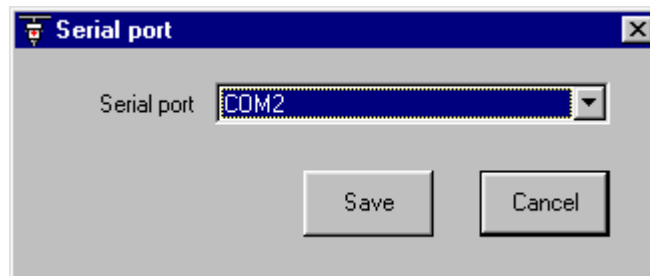
Note the new password in a safety place. If you have forgotten the password, you will never be able to access the Supervisor Mode again. The password is associated with the SpectraLive® project. Each project can have its own password.

5.7 Changing Communication port

Each project communicates with the VM110 units through a computer serial port. If the serial port isn't set properly, a "Communication Error" will occur.

Supervisor can set the communication port as follows:

From the **Setting** menu select **Set communication port** command:



In the setting windows select the proper serial port and press **Save**. This setting will be saved in the project.

6 Design mode

As a designer you can do all anybody can do in the SpectraLiveServer.

Please read the SpectraLive Designer manual to read more.

ADDENDUM A

1 Parameters for a Vibration tag

Parameter	Description	Comments
TAG		
Name	Tag identification code	Max.12 char
Description	Tag short description	Max.40 char
Type		
VM110		
Address	General information regarding VM110 unit	
Name		
Software ver.		
Serial no.		
CHANNEL		
Channel no.	From 1A to 8B	
Transducer type	Velocity, Acceleration, Displacement or VoltmeterAC	Hardware jumper must be arranged to fit transducer.
Unit	m/s ² , g, mm/s, m/s, in/s, um, mm, mils, thou or mV	Unit to define transducer sensitivity
Sensitivity	(number) in mV/unit	According with transducer data sheet
Transducer LO	(number) in Volts	Minimum bias value in normal operation condition
Transducer HI	(number) in Volts	Maximum bias value in normal operation condition
Show unit	m/s ² , g, mm/s, m/s, in/s, um, mm, mils, thou or mV	Rough measurement will be transformed in this unit
Show average	RMS, peak or peak-peak	Rough measurement will be transformed in this average
DC Bias	Actual bias value, in Volts	Is update live
Spectrum – min.freq.	Low pass corner for spectrum, in Hz	Act as a filter for very low frequencies. Normal value: 1 Hz
Total level – min.freq.	Lower limit for total value measurement	Normal value: 1 Hz
Total level – max.freq.	Higher limit for total level measurement	Normal value: 1000Hz
Associated phase	(none), 1P,2P,3P or 4P	Associated phase will be used for orbit and orders measurements
Range LO	0	For vibration tag always zero

Range HI	Range for trend , in Show unit	
Spectrum button	Enable or Disable	If set to Disable, Spectrum button in Graph windows is also disable
Waveform button	Enable or Disable	If set to Disable, Waveform button in Graph windows is also disable
Orbit button	Enable or Disable	If set to Disable, Orbit button in Graph windows is also disable
Orders button	Enable or Disable	If set to Disable, Orders button in Graph windows is also disable
Danger HI	(number), in Show unit	If Alarm Status is set to Disable the this setting is ignored
Warning HI	(number), in Show unit	If Alarm Status is set to Disable the this setting is ignored
Alarm status	Enable or Disable	If set to Disable, no alarm indicator will be shown in tag
Measure ENV	YES or NO	If set to YES also Envelope value will be measured. This setting is ignored for all type of vibration transducer except accelerometer.
SpectraPro		
Database name	An alias name of the SpectraPro database connected to SpectraLive	The database can be selected by SUPERVISOR
Department	Destination in the selected SpectraPro database	The destination must be unique.
Machine		
Point		
Direction		

2 Parameters for a Envelope tag

Parameter	Description	Comments
TAG		
Name	Tag identification code	Max.12 char
Description	Tag short description	Max.40 char
Type		
VM110		
Address	General information regarding VM110 unit	
Name		
Software ver.		
Serial no.		
CHANNEL		
Channel no.	From 1A to 8B	
Transducer type	Acceleration	For other type of vibration transducer ENV can't be measure
Unit	m/s ² , g	Unit to define transducer sensitivity
Sensitivity	(number) in mV/unit	According with transducer data sheet
Transducer LO	(number) in Volts	Minimum bias value in normal operation condition
Transducer HI	(number) in Volts	Maximum bias value in normal operation condition
Show unit	gE	For ENV unit is allways “gE”
Show average	RMS, peak or peak-peak	Rough measurement will be transformed in this average
DC Bias	Actual bias value, in Volts	Is update live
Range HI	10 gE	Fix range for ENV
Danger HI	(number), in “gE” unit	If Alarm Status is set to Disable the this setting is ignored
Warning HI	(number), in Show unit	If Alarm Status is set to Disable the this setting is ignored
Alarm status	Enable or Disable	If set to Disable, no alarm indicator will be shown in tag
Measure ENV	YES	
SpectraPro		
Database name	An alias name of the SpectraPro database connected to SpectraLive	The database can be selected by SUPERVISOR
Department	Destination in the selected SpectraPro database	The destination must be same as for vibration measurement.
Machine		
Point		
Direction		

3 Parameters for a Process tag

Parameter	Description	Comments
TAG		
Name	Tag identification code	Max.12 char
Description	Tag short description	Max.40 char
Type		
VM110		
Address	General information regarding VM110 unit	
Name		
Software ver.		
Serial no.		
CHANNEL		
Channel no.	From 1A to 8B	
Transducer type	VoltmeterAC	Hardware jumper must be arranging to fit transducer.
Transducer LO	(number) in Volts	Transducer output (in Volts) for Range LO
Transducer HI	(number) in Volts	Transducer output (in Volts) for Range HI
DC Range	+5V	Maximum Voltage travel for a Process measurement must be +5 Volts
Value	Actual transducer output, in Volts	Is update live
Process unit	(string)	Max. 10 char
Range LO	Lower range, in Process unit	
Range HI	Upper range, in Process unit	
Danger HI	(number), in Process unit	If Alarm Status HI is set to Disable the this setting is ignored
Warning HI	(number), in Process unit	If Alarm Status HI is set to Disable the this setting is ignored
Warning LO	(number), in Show unit	If Alarm Status LO is set to Disable the this setting is ignored
Danger LO	(number), in Show unit	If Alarm Status LO is set to Disable the this setting is ignored
Alarm status LO	Enable or Disable	If set to Disable, no alarm indicator will be shown in tag for LO alarm
Alarm status HI	Enable or Disable	If set to Disable, no alarm

		indicator will be shown in tag for HI alarm
SpectraPro		
Database name	An alias name of the SpectraPro database connected to SpectraLive	The database can be selected by SUPERVISOR
Department	Destination in the selected SpectraPro database	The destination must be unique.
Machine		
Point		

4 Parameters for a Displacement tag

Parameter	Description	Comments
TAG		
Name	Tag identification code	Max.12 char
Description	Tag short description	Max.40 char
Type		
VM110		
Address	General information regarding VM110 unit	
Name		
Software ver.		
Serial no.		
CHANNEL		
Channel no.	From 1A to 8B	
Transducer type	VoltmeterAC	Hardware jumper must be arranged to fit transducer.
Transducer LO	(number) in Volts	Transducer output (in Volts) for Range LO
Transducer HI	(number) in Volts	Transducer output (in Volts) for Range HI
DC Range	+/- 24V	Maximum Voltage travel. Low accuracy.
DC Range	0-5V	Maximum Voltage travel. High accuracy.
Offset	Offset value for “live zero” adjustment	This value can be set by SUPERVISOR only
Value	Actual transducer output, in Volts	Is update live
Process unit	(string)	Max. 10 char
Range LO	Lower range, in Process unit	
Range HI	Upper range, in Process unit	
Danger HI	(number), in Process unit	If Alarm Status HI is set to Disable the this setting is ignored
Warning HI	(number), in Process unit	If Alarm Status HI is set to Disable the this setting is ignored
Warning LO	(number), in Show unit	If Alarm Status LO is set to Disable the this setting is ignored
Danger LO	(number), in Show unit	If Alarm Status LO is set to Disable the this setting is ignored
Alarm status LO	Enable or Disable	If set to Disable, no alarm indicator will be shown in tag for LO alarm

Alarm status HI	Enable or Disable	If set to Disable, no alarm indicator will be shown in tag for HI alarm
SpectraPro		
Database name	An alias name of the SpectraPro database connected to SpectraLive	The database can be selected by SUPERVISOR
Department	Destination in the selected SpectraPro database	The destination must be unique.
Machine		
Point		

5 Parameters for a Speed tag

Parameter	Description	Comments
TAG		
Name	Tag identification code	Max.12 char
Description	Tag short description	Max.40 char
Type		
VM110		
Address	General information regarding VM110 unit	
Name		
Software ver.		
Serial no.		
CHANNEL		
Channel no.	From 1P to 4P	
Range LO	Lower range, in RPM	
Range HI	Upper range, in RPM	
Danger HI	(number), in RPM	If Alarm Status HI is set to Disable the this setting is ignored
Warning HI	(number), in RPM	If Alarm Status HI is set to Disable the this setting is ignored
Warning LO	(number), in RPM	If Alarm Status LO is set to Disable the this setting is ignored
Danger LO	(number), in RPM	If Alarm Status LO is set to Disable the this setting is ignored
Alarm status LO	Enable or Disable	If set to Disable, no alarm indicator will be shown in tag for LO alarm
Alarm status HI	Enable or Disable	If set to Disable, no alarm indicator will be shown in tag for HI alarm
SpectraPro		
Database name	An alias name of the SpectraPro database connected to SpectraLive	The database can be selected by SUPERVISOR
Department	Destination in the selected SpectraPro database	The destination must be unique.
Machine		
Point		

6 Tag properties

A ready made project has usually several tags. The tag properties are set while programming the VM110 and configuring it. They are also set during the project design. The following figures show, what properties a designer can affect and when:

Properties - Module 1 Channel 5A			Properties - Module 2 Channel 5A		
Parameter	Value	Unit	Parameter	Value	Unit
TAG			TAG		
Name	Lager 2 Temp		Name	Plate Static V	
Description	VoltmeterDC Ch 5A		Description	Displacement description #1	
Type	Process		Type	Displacement	
VM110			VM110		
Address	1		Address	2	
Name	UNIT1		Name	UNIT2	
Software ver	V 4.3		Software ver	V 4.3	
Serial No	061906		Serial No	061704	
CHANNEL			CHANNEL		
Channel no	5A		Channel no	5A	
Transducer type	VoltmeterDC		Transducer type	VoltmeterDC	
DC Range	5.0V		DC Range	+/-25V	
Transducer 0%	1.901	V	Transducer 0%	1.7	V
Transducer 100%	4.753	V	Transducer 100%	10	V
Process unit	°C		Offset	-5.01	V
Process value	2.62	V	Process unit	m m	
Range LO	0	°C	Process value	6.60	V
Range HI	75	°C	Range LO	-1.5	m m
Danger HI	70	°C	Range HI	1.5	m m
Warning HI	50	°C	Danger HI	1.4	m m
Warning LO	20	°C	Warning HI	1.2	m m
Danger LO	10	°C	Warning LO	-1.2	m m
Alarm status LO	Enabled		Danger LO	-1.4	m m
Alarm status HI	Enabled		Alarm status LO	Enabled	
Save to log file	YES		Alarm status HI	Enabled	
RELAYS CONFIGURATION			RELAYS CONFIGURATION		
Act on WARNING	(None)		Act on WARNING	(None)	
Act on DANGER	(None)		Act on DANGER	(None)	
Additional condition	NO		Additional condition	NO	
Act on Fail	(None)		Act on Fail	(None)	
SPECTRAPRO			SPECTRAPRO		
Database name	Demomaskin		Database name	Demomaskin	
Department	VMI AB		Department	VMI AB	
Machine	Axel 1		Machine	Platta	
Point	Lager 2 Temp		Point	Statisk V	
SPECTRAPRO TRANSFER SETTINGS			SPECTRAPRO TRANSFER SETTINGS		
Scheduled transfer	YES		Scheduled transfer	YES	
Transfer on Danger	YES		Transfer on Danger	YES	
Conditioned transfer	YES		Conditioned transfer	YES	
	when Lager 2 Temp >= 15 °C			when Plate V Displ >= 100 um RM:	

Parameter	Value	Unit
TAG		
Name	Unit 1 Ch 1A	
Description	Acceleration Ch 1A	
Type	Vibration	
VM110		
Address	1	
Name	UNIT1	
Software ver.	V 5.0	
Serial No.	074002	
CHANNEL		
Channel no.	1A	
Transducer type	Acceleration	
Unit	g	
Sensitivity	100	mV/unit
Transducer LO	6	V
Transducer HI	18	V
Show unit	mm/s	
Show average	RMS	
DC Bias	11.98	V
Spectrum - min freq	1	Hz
Total level - min freq	10	Hz
Total level - max freq	1000	Hz
Associated phase	Phase1	
Range LO	0	mm/s
Range HI	10	mm/s
Spectrum button	Enabled	
Waveform button	Enabled	
Orbit button	Enabled	
Orders button	Enabled	
Danger HI	0	mm/s
Warning HI	0	mm/s
Alarm status	Disabled	
Measure ENV	Enabled	
Save to log file	YES	
RELAYS CONFIGURATION		
Act on WARNING	(None)	
Act on DANGER	(None)	
Additional condition	NO	
Act on Fail	(None)	
SPECTRAPRO LOCATION		
Database name	Delivery	
Department	VMI AB	
Machine	Unit to be delivered	
Point	1A	
Direction	H	
SPECTRAPRO TRANSFER SETTINGS		
Scheduled transfer	YES	
Transfer on Danger	YES	
Conditioned transfer	YES	
when	Unit 1 1P >= 60 RPM	

Parameter	Value	Unit
TAG		
Name	Unit 1 Ch 1A	
Description	Envelope Ch 1A	
Type	Envelope	
VM110		
Address	1	
Name	UNIT1	
Software ver	V 5.0	
Serial No	074002	
CHANNEL		
Channel no	1A	
Transducer type	Acceleration	
Unit	g	
Sensitivity	100	mV/unit
Transducer LO	6	V
Transducer HI	18	V
DC Bias	11.98	V
Range HI	10	g
Danger HI	0	g
Warning HI	0	g
Alarm status	Disabled	
Measure ENV	Enabled	
Save to log file	NO	
RELAY CONFIGURATION		
Act on WARNING	(None)	
Act on DANGER	(None)	
Additional condition	NO	
Act on Fail	(None)	
SPECTRAPRO		
Database name	Delivery	
Department	VMI AB	
Machine	Unit to be delivered	
Point	1A	
Direction	H	
SPECTRAPRO TRANSFER SETTINGS		
Scheduled transfer	YES	
Transfer on Danger	NO	
Conditioned transfer	NO	

Parameter	Value	Unit
TAG		
Name	Unit 1 3P	
Description	Speed 3P	
Type	Speed	
VM110		
Address	1	
Name	UNIT1	
Software ver	V 5.0	
Serial No	074002	
CHANNEL		
Channel no	3P	
Pulse per revolution	1	
Range LO	0	RPM
Range HI	20000	RPM
Danger HI	0	RPM
Warning HI	0	RPM
Warning LO	0	RPM
Danger LO	0	RPM
Alarm status LO	Disabled	
Alarm status HI	Disabled	
Speed meas	Enabled	
Save to log file	NO	
RELAYS CONFIGURATION		
Act on WARNING	(None)	
Act on DANGER	(None)	
Additional condition	NO	
Act on Fail	(None)	
SPECTRAPRO		
Database name	Delivery	
Department	VMI AB	
Machine	Unit to be delivered	
Point	3P	
SPECTRAPRO TRANSFER SETTINGS		
Scheduled transfer	YES	
Transfer on Danger	NO	
Conditioned transfer	YES	
when	Unit 1 3P >= 65 RPM	

The figure below shows what application or who can set the different properties.

VM110 Settings
Off-set value
Set during programming (by VMI AB)
Actual measured value/BIAS
Set in SpectraLiveServer project
Chosen in SpectraLive from SpectraPro