# USER'S MANUAL

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# > DLSentinel



# **OIDOIATACO**

**ORIGINAL INSTRUCTIONS (ref. 2006/42/EC)** 

See www.patents.datalogic.com for patents list.

Datalogic S.r.l. Via S. Vitalino 13 40012 Calderara di Reno Italy

DLSentinel User's Manual Ed.: 03/2019

This manual refers to software version 2.1.0.

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Effective. November 10, 2017.

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# REFERENCES

### CONVENTIONS

This manual uses the following conventions:

"DLSentinel" refers to the Datalogic User Interface client application running on a PC.

"User" or "Installer" refers to anyone using DLSentinel.

"Device" refers to physical devices used in the safety application, i.e. Laser Sentinel.

"You" refers to the System Administrator or Technical Support person using this manual to install, configure, operate, maintain or troubleshoot a plant equipped with DLSentinel.

### **REFERENCE DOCUMENTATION**

The documentation related to DLSentinel is listed below:

- Device specific Help On Line
- This User's Manual
- Laser Sentinel Instruction Manual

### SUPPORT THROUGH THE WEBSITE

Datalogic provides several services as well as technical support through its website. Log on to **www.datalogic.com** and click on the **SUPPORT** link, which gives you access to:

- **Downloads** by selecting your product model from the dropdown list in the Search by Product field for specific Data Sheets, Manuals, Software & Utilities and Drawings;
- **Repair Program** for On-Line Return Material Authorizations (RMAs) plus Repair Center contact information;
- Customer Service containing details about Maintenance Agreements;
- **Technical Support** through email or phone.

# 1 DLSENTINEL GRAPHIC USER INTERFACE

### **1.1 PROGRAM DESCRIPTION**

DLSentinel is a User Interface client application that provides device configuration for the Laser Sentinel series of safety laser scanners. It is installed in and runs on Windows-based PCs, and connection takes place through an Ethernet TCP/IP interface.

File Scanner Options Help		- 0 X
# ₿ 🕼 🖾 ?		<b>⊕</b> DATALOGIC
Help	Task Selection	
Cetting Started	New Safety System Configuration Create a new Safety System Configuration	
Antonio antoni	Open a Safety System Configuration From PC Edit a Safety System Configuration saved on PC	
	Modify Safety System Configuration From a Scanner on the Network Edit a Safety System Configuration From a Scanner on the Network	
Click on the <b>New Safety System Configuration</b> to advance to the Device Selector page where you can create a new configuration from an offine device in the Catalogue list. Opening a Safety System Configuration allows you to load a previuosly swed configuration from the FC to change it or upload it to the senner	Monitor Safety System Monitor a Scanner on the Network	
via the Programming Item. Click on Nedry Safety System Configuration to Discover your device on the LAN and change its configuration.	Read a Safety System Report from a Scanner on the Network Show a Safety System Report from a Scanner on the Network	
? Contextual Help is provided for each configuration step, just click on the help icon in the toobar at the top. A corresponding page of collapsed Help discriptions open. You can view the descriptions by clicking on the parameter name with the $\textcircled{P}$ icon.	Read a Safety System Report from PC Show a Safety System Report from PC	
For information about using D.Sentinel (3.1), refer to the <b>DI Sentinel</b> User's Manual. You can open if from the Heigh neru or from the Windows     Start neru under Al Programs-Datalogic>D.Sentinel>x.x.x(w version)     >> obcumentation.		
Por information about using the Laser Sentinel scanner refer to the Laser Sentinel Instruction Hammal. You can open it from the Helps meru or from the Window Site meru under Datalogic>DLSentinel>xx.x(sw version)>Documentation.		

### Main features

A summary of the DLSentinel main features is listed below:

- Settings for changing the device's password and to manage the network configuration
- User and Session Language configuration in real time
- System configuration
- Report
- Manual

### 1.2 BEFORE USING DLSENTINEL

To employ the device, a safety configuration with the DLSentinel GUI must be created, where the user will enter all the parameters, configure inputs and outputs and create monitored areas.

### 1.3 INSTALLING DLSENTINEL

The DLSentinel client application software needs to be installed on your PC to configure the safety laser scanner.

### **1.3.1 Minimum System Requirements**

To ensure proper interfacing with the system, the personal computer must meet the following minimum requirements:

COMPONENT	RECOMMENDED	MINIMUM
Processor(s)	Pentium 4	Pentium 4
Clock frequency	>= 3 GHz	>= 2 GHz
RAM	2 GB	1 GB
Free hard drive space	70 MB	70 MB
Monitor resolution	1280x768	1024x768
Supporting Operating System	Windows XP, Windows 7, Windows 8, Windows 10	

Besides the components listed in the table above, your PC must be equipped with the following hardware and software drivers:

- Installed Ethernet network card and installed driver
- One free 100 Mbps Ethernet port

### **1.3.2 Program installation**

DLSentinel is a Datalogic safety laser scanner configuration tool providing several important advantages:

- Intuitive Graphical User Interface for rapid configuration;
- Defined configuration directly stored in the device;
- Discovery and IP address setting features to facilitate remote configuration
- Device Monitoring

### To install DLSentinel:

- 1. On the PC that will be used for configuration, download the free setup file from the Datalogic website (Laser Sentinel Download area > Software & Utilities): http://www.datalogic.com/eng/products/manufacturing/safety/laser-sentinel-pd-829.html#download
- 2. Unzip the file and run the installation program by double-clicking the **SetupDISentinel.msi** file. The downloaded folder also contains Windows framework (dotNetFx40\_x86\_x63.exe) provided by Datalogic in case you need to update your operating system. Run the .msi setup file first, and only install the framework .exe file if requested.
- 3. Follow the setup procedure and accept all terms and conditions required for this software release.
- 4. When the installation is complete, the DLSentinel entry is created in the Start > All Programs menu under "Datalogic" along with a desktop icon.

5. Before launching DLSentinel, you have to create the network LAN with the same address as the new device. Follow the connection procedure described in par. 2.1.2.



**Note:** A dedicated computer running DLSentinel must be connected to a safety laser scanner through the Ethernet port to perform the configuration and monitoring features.

### 1.4 DLSENTINEL USER INTERFACE

After launching DLSentinel to configure devices or handle reports, the DLSentinel Task Selection shows the following main areas:

- 1. Main Menu and Toolbar Area The DLSentinel main features.
- 2. Task Selection Area Presents a list of the tasks that can be performed from DLSentinel. These selections are also available in the File and the Scanner Menus (Main Menu Area).
- **3.** Status Bar A reserved area that keeps specific information about the connected device. It displays information on the current network status, the connected device status, the connector and the application type.
- 4. Help Online A Help Guide that includes all the information and parameters to create a proper configuration. For the next configuration steps, the help online is available/visible only by clicking on the dedicated button ? in the toolbar.

### 1.4.1 Main menu

FILE	
New Configuration	To create a new Device Configuration.
Open Configuration from PC	To open a previously saved Configuration on the local drive.
Read from PC:	
$\rightarrow$	Report - Shows a Safety System Configuration Report saved on PC.
Save	Saves the current configuration or report on PC.
Exit	To exit the DLSentinel user interface.

SCANNER	
Discovery	Searches for a Device connected to the Network (LAN).
Direct Connect	To connect to a Master device by entering its IP address.
Open Configuration from scanner	To open a configuration from a Device.
Open Shape from file	To insert a previously saved shape in a zone.
Apply Configuration	To apply a configuration to a connected Device.
Read from Scanner:	
$\rightarrow$	Report - Shows a Safety System Configuration Report saved on PC.
Settings:	
$\rightarrow$	Change Network Configuration
$\rightarrow$	Change Access Controls
$\rightarrow$	Reset Password
$\rightarrow$	Factory Reset
Update Firmware	To update the Firmware file.

OPTIONS		
Change Language	Allows the user to change the display language used for DLSentinel in real time. The selected language will also be used for successive sessions.	
DLSentinel Log		
$\rightarrow$	Extract Log	
Report Settings		
$\rightarrow$	Measure Unit	
$\rightarrow$	System Coordinate	

HELP	
User's Manual	Opens the DLSentinel User's Manual.
Instruction Manual	Opens the Laser Sentinel Instruction Manual.
About	Opens a window that contains DLSentinel release version information.

## 1.4.2 Toolbar buttons

ICON	DESCRIPTION
Ħ	Getting Started: allows the user to start a session by clicking on one of the Task Selection options.
B	Save: saves the current configuration or report session.
	<b>Configuration Validator:</b> this tool allows you to check the new configuration in DLSentinel before sending it to the device. By clicking on this option, a validation test will be made on the entire configuration in DLSentinel. A pop-up window will appear displaying either a list of configuration errors or validating the configuration.
$\mathbf{F}$	Monitoring: starts a monitoring session.
?	Help Online: displays a window that includes the help online guide and it shows the parameters depending on the selected configuration step.

### 1.4.3 Task selection

The right side of the main window includes the list of the Task selection. The list is explained in the chart below.

ICON	DESCRIPTION
+	<b>New Safety System Configuration</b> : to create a new Safety System Configuration on a Virtual Scanner.
	<b>Open a Safety System Configuration from PC</b> : to open and edit a Configuration saved on PC.
29	<b>Modify Safety System Configuration from a Scanner on the Network</b> : to edit a Safety System Configuration from a Scanner on the Network.
₽¥-	Monitor Safety System: to enter the monitoring function of a connected Device.
	<b>Read a Safety System Report from a Scanner on the Network</b> : to view, print or save a Safety System Configuration Report.
	<b>Read a Safety System Report from PC</b> : to view or print a Safety System configuration report stored on PC.

### 1.5 LASER SENTINEL CONFIGURATION CHECKLIST

DLSentinel allows creating, testing and validating a device configuration. Complete configuration can only be performed on a connected device (Online).

File	Scanner	Options	Help			$ \mathbf{x} $
A	I 🗎 🕻	₽ <u>₽</u>	?		OIDOJATAC≎	
M	Schino SLS-M5-0812 958001040		•	Configuration Pro	ogramming Monitoring Back Next	
	Demo Setting SLS-R5 958001070	S			Configuration Settings	
				Application	io EXPERT V Connector 12 PIN CONNECTION V	
				Configuration		
				Name	e	
				Author	or vcreta	
				Description	n	
				GUI Version	n 2.1.0.197-RC03-FIX03	
				Safety Signature	e 7166746043072C74458FA841E8FABEAF	
				Creation Date	Wednesday, September 5, 2018 5:25:01 PM	
				Cluster		
				Name	Test-Schino	
				Scanner		
				Name	e Schino	
CONN	IECTED		12 PIN (	CONNECTION EXPERT	SCANNER STATUS: WORKING DEVICE IP: 10.239.39.144	

The main steps to configure the Laser Sentinel are:

- 1. CONFIGURATION: create the configuration through Settings, Outputs, Zone Set, Inputs, Detection, Zones.
- 2. **PROGRAMMING:** upload the configuration and generate the report file.
- 3. **MONITORING:** test and monitor the device functioning with the new configuration.
- 4. **PROGRAMMING:** validate the configuration (accept it or reject it).



At first connection, the device has no pre-set configuration. The display shows the following icon indicating that the Laser Sentinel is waiting for configuration. You need to define a new configuration as described in chap. 2.



# 2 LASER SENTINEL CONFIGURATION

### 2.1 ESTABLISHING ETHERNET COMMUNICATIONS WITH THE SCANNER

The first thing to do is connect the configuration PC to the Laser Sentinel scanner through the Ethernet port. There are two different methods of establishing Ethernet communications with the Laser Sentinel depending on the network restrictions of the plant in which it is installed.

If the plant provides an Ethernet network to which the Laser Sentinel is connected, then the Discovery feature can be used by connecting the configuration PC to the network, as described in par. 2.1.1.

If there is no Ethernet network available or it is restricted, then the configuration PC must be connected point-topoint with the Laser Sentinel and its IP address must be aligned to the Laser Sentinel default address to establish communication, as described in par. 2.1.2.



When connecting and using the device with your PC for the first time, use a point-to-point connection with the factory default IP addresses, as described in par. 2.1.2. This is to avoid any network conflicts in the Ethernet communication.

### 2.1.1 DLSentinel Device Discovery through a Network

DLSentinel has a discovery feature to find the connected device.

1. Click on the **Discovery** item in the Scanner menu to search for the connected device. Alternatively, you can select the **Modify Safety Configuration** item from the task menu.

File Scanner Options Help		-   0   X
Discovery		
Help Open configuration from Scanner	Task Selection	
Gettin 🚰 Apuly configuration	New safety system configuration Create a new safety system configuration	
See tings	Open a safety system configuration from PC Edit a safety system configuration saved on PC	
	Modify safety system configuration from a Scanner on the network Edit a safety system configuration from a Scanner on the network	
Click on the New Safety System Configuration to advance to the Devile Selection page where you can create a new configuration from an offline device in the Catalogue list.	Monitor safety system Monitor a Scanner on the network	
Opening a Safety System Configuration allows you to load a previously seled configuration from the PC to change it or upload it to the scanner via the Programming item. Click on Modify Safe y System Configuration to Discover your device on the Unit and change its configuration.	Discovery: 33%	
? Contextual Help is provided for each configuration step, just click on the help icon in the toobar at the top. A corresponding page of collapsed Help descriptions opens. You can view the descriptions by clicking on the parameter name with the important context of the top icon.		
For information about using DLSentinel GUI, refer to the DLSentinel User's Manual. You can open it from the Help menu or from the Windows Start menu under Al Programs/Datalogic>DLSentinel>x.x.x(sw version) >Documentation.		
For information about using the Laser Sentinel scanner refer to the Laser Sentinel Instruction Manual. You can open it from the Help menu or from the Windows Start menu under Datalogic-DLSentinel>x.x.x(sw version)>Documentation.		

The User Interface opens and displays the device with its own default IP Address (192.168.0.10). Any other device on the network will also be discovered.

e Scanner Options	Help	
🛉   🖻 🕼   👳	?	OJATACO
Discovery		
Working	^	
SLS-SA 150 h (1)		
SLS-SA5	Q	
10.239.39.136		
SLS-SA TEST		
SLS-SA5	Ŷ	
10.239.39.138		
Test-Schino		
SLS-M5-0812	m .	
10.239.39.144	Q	
Slave no. 1		

2. Click on the discovered device to place it in the Device Configuration panel. A warning message will be displayed indicating that the device is not on the same network and prompts you to align it with the network.



3. Click OK and then change the IP Address parameters in the Network Configuration window to align them with your network. Consult your network administrator for these parameters.

	IP Local	10		239		32		101
	DHCP	Static						~
	IP	10		239		39		144
	Subnet	255		255		0		0
	Gateway	10		239		32		1
IP Address used	1: 10.239.39.14	4 10.23	9.3	9.145	10.2	39.39	9.14	6 10 🐧
<								>
	ОК	Canc	el					



Laser Sentinel also reserves the successive IP Address for internal functions.

- 4. Click OK to accept the new IP Address parameters. The device resets.
- 5. Click on the Discovery button. DLSentinel will rediscover the device with the new IP Address.
- 6. Click on the device to load it into the task area.

File     Scanner     Options	Help <b>?</b>					
Discovery						Next
Working SLS-SA 150 h (1)	^	SLS-M5-0812	Test-Schino	FW: 02.01.00.20	SLS M5 master	Q
SLS-SA5	Q	м	Status 🔴	PW: WR	10.239.39.144	
10.239.39.136		SLS-R5	S0	SLS R5 Slave		Q
SLS-SA TEST SLS-SA5 10.239.39.138	Q	SO	-	10.239.39.146		
Test-Schino SL S-M5-0812 10.239.39.144 Slave no. 1	Q					

7. Click on the white right-pointing arrow on the upper right side on the main panel to download the current configuration from the device to the PC. DLSentinel is now connected to the device.



**Note:** If you are connecting the device for the first time or after a Factory Reset (see Factory Reset), the display will show a "NO CONF" message until a new configuration is loaded.



**Note:** See par. 0 for modifying the current configuration or par. 2.5 for downloading a previously saved configuration from the PC.

### 2.1.2 Point-to-Point Configuration PC Static IP Addressing Alignment

It is possible to connect a configuration PC directly to the device using the Ethernet TCP/IP interface (point-to-point).



When connecting and using the device with your PC for the first time, this procedure is recommended to avoid any network conflicts in the Ethernet communication.

The Ethernet IP Addressing parameters must be aligned between the configuration PC and the scanner. Please follow the procedure below.

The default Laser Sentinel static assignment Ethernet IP Address is: 192.168.0.10.



The successive IP Address (192.168.0.11) will also be reserved for internal functions.

- 1. Connect the device to the LAN port of your PC and switch it on.
- 2. Before changing the Ethernet network settings on the PC running the GUI, close any open applications that use network resources (e.g. Outlook, Web browser).
- 3. On the configuration PC, from the Control Panel>Network and Internet>Network and Sharing Center, click on the Local Area Connection link and open the properties window.
- 4. Select the Internet Protocol Version 4 (TCP/IPv4) item and open the properties window.
- 5. Set the IP Address fields as follows: 192.168.0.xx, where "xx" is any number differing from the device address, and click *OK* to save. The PC is now aligned with the Laser Sentinel default network.

General	
	d automatically if your network supports need to ask your network administrator
🔘 Obtain an IP address auto	matically
• Use the following IP addre	ss:
IP address:	192.168.0.38
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	
Obtain DNS server address	s automatically
Output the following DNS service	ver addresses:
Preferred DNS server:	· · · ·
Alternate DNS server:	
🔲 Validate settings upon exi	it Advanced

- 6. Launch DLSentinel from the configuration PC.
- 7. Click on the Discovery button. DLSentinel will discover the device with the default IP Address.
- 8. Click on the device to load it into the task area.

File Scanner	Options	Help						- 0 X
# 🗎 🖓	₽ ?							<b>ODATALOGIC</b>
Dis	covery							>
			_					-
Working		^	SLS-SA5		Demo Settings	FW: 02.00.00.79	SLS Stand Alone	
Demo Settin	gs				Status 🔴	PW: WR	192.168.0.10	
SLS-SA5		Q		_				
192.168.0.10								
NOT CONNECTED								

9. If **Windows Firewall** is active on the configuration PC, a pop-up window will appear after discovering the device.



**Note:** If no firewall window appears, but an "Unable to connect" message is still shown, it may be due to the antivirus firewall installed on you PC.

Do not close the pop-up window before allowing access to both private and public networks of the PC to communicate and exchange data with the device through the Ethernet port.

P Windows Security Alert										
Windows Defender Firewall has blocked some features of this app										
Windows Defender networks.	Firewall has blo	cked some features of DLSentinel on all public and private								
ar	Name:	DLSentinel								
OLSENTIME.	Publisher:	Datalogic								
	Path:	C:\program files (x86)\datalogic\dlsentinel \2.1.0\dlsentinel.exe								
Allow DLSentinel to	communicate o	n these networks:								
Private netw	orks, such as m	y home or work network								
Public networks, such as those in airports and coffee shops (not recommended because these networks often have little or no security)										
What are the risks of allowing an app through a firewall?										
		Second Allow access Cancel								

If you close the pop-up window before confirming the Firewall authorization, go to Control Panel>System and Security>Windows Defender Firewall>Allowed apps and click on "Change settings".

← → ` ↑ <b>#</b> > Control Pan	el > System and Security > Windows Defender Firewall > Al	llowed apps					~ Ū	Search Control Panel	م
	Allow apps to communicate through Wi	- James Dafa	a de la retal						
				ewall					
	To add, change, or remove allowed apps and ports, o	-	ings.		<u>^</u>				
	What are the risks of allowing an app to communica	ite?			😯 Change setti	ings			
	For your security, some settings are managed b	oy your system a	dministrat	or.					
	Allowed apps and features:								
	Name	Domain	Private	Public	Group Policy	^			
	Distributed Transaction Coordinator				No				
	DLSentinel				No				
	Email and accounts	<b>V</b>	<b>V</b>	<b>V</b>	No				
	Feedback Hub	$\checkmark$		<b>V</b>	No				
	File and Printer Sharing	$\checkmark$			No				
	File and Printer Sharing over SMBDirect				No				
	Get Help	<b>~</b>	✓	<b>~</b>	No				
	Google Chrome	<b>~</b>	✓	<b>~</b>	No				
	Groove Music	<b>~</b>	✓	<b>~</b>	No				
	HomeGroup				No				
	iSCSI Service				No				
	KD Service Port	<b>~</b>			No	~			
				Details.	. Remove	e			
				A	low another app	o			
				_					
				Ok	Cano	el:			

Scroll down the list and check the boxes on the DLSentinel row as shown in the figure below, then click *OK*. The Firewall is now disabled on DLSentinel.

Allowed apps								-	×
$\leftarrow \  \   ightarrow \  \    imes \  \    imes$ Control Panel $\  \    ightarrow$ System and Security	> Windows Defender Firewall > Allowe	d apps					√ Ō	Search Control Panel	Q
Allow apps	to communicate through Windo	ws Defer	der Fire	ewall					
To add, chang	e, or remove allowed apps and ports, click (	Change sett	ings.						
	sks of allowing an app to communicate?	-	-		😯 Change setti	ings			
1 For your	ecurity, some settings are managed by yo	ur system ac	dministrat	or.					
Allowed app	s and features:								
Name		Domain	Private	Public	Group Policy	^			
Distribut	ed Transaction Coordinator				No				
✓ DLSentin	el				No				
🗹 Email an	d accounts	~	<b>v</b>	~	No				
☑ Feedbac	k Hub	✓	$\checkmark$	✓	No				
☑ File and	Printer Sharing	✓			No				
🗆 File and	Printer Sharing over SMBDirect				No				
🗹 Get Help		✓		✓	No				
🗹 Google (	hrome				No				
Groove M	Ausic				No				
HomeGr	oup				No				
iSCSI Ser	vice				No				
KD Servi	ce Port	<b>v</b>			No	~			
				Details	. Remove	e			
				A	low another app	<b>)</b>			
				OK	Canc	el:			



**Note:** If you cannot find DLSentinel on the program list, uninstall and reinstall the software and follow the procedure described in point 9.

10. Back on DLSentinel, click on the white right-pointing arrow on the upper right side on the main panel to download the current configuration from the device to the PC. DLSentinel is now connected to the device.



**Note:** If you are connecting the device for the first time or after a Factory Reset (see Factory Reset), the display will show a "NO CONF" message until a new configuration is loaded.



**Note:** See par. 0 for modifying the current configuration or par. 2.5 for downloading a previously saved configuration from the PC.

# 2.2 MODIFY SAFETY SYSTEM CONFIGURATION FROM A SCANNER ON THE NETWORK

1. Click on Modify Safety System Configuration From a Scanner on the Network task to edit a configuration on a device on the Network (Online Configuration).

File Scanner Options Help		-101×
+ ⊟ 🕼 🖾 ?		<b>ØDATALOGIC</b>
Help	Task Selection	
Getting Started	New Safety System Configuration Create a new Safety System Configuration	
A TOTAL	Open a Safety System Configuration From PC Edit a Safety System Configuration saved on PC	
Click on the New Safety System Configuration to advance to the Device Selection page where you can create a new configuration from an offine device in the Catalogue Link	Modify Safety System Configuration From a Scanner on the Network Edit a Safety System Configuration From a Scanner on the Network	
Opening a Safety System Configuration allows you to load a previuosly saved configuration from the PC to change it or upload it to the scanner via the Programming Item.	Monitor Safety System Monitor a Scanner on the Network	
Click on Modify Safety System Configuration to Discover your device on the LAN and change its configuration.		
? Contextual Help is provided for each configuration step, just click on the	Read a Safety System Report from a Scanner on the Network Show a Safety System Report from a Scanner on the Network	
help con in the toobar at the top. A corresponding page of collapsed Help descriptions spens. You can view the descriptions by dicking on the parameter name with the too know.	Read a Safety System Report from PC Show a Safety System Report from PC	
For information about using DLSentmel GUI, refer to the DLSentimel User's Hamual. You can open it from the Help menu or from the Windows Start menu under Al Programs-Datalogic>DLSentmel>x.x.(sw version) >Documentation.		
For information about using the Laser Sentinel iscancer refer to the Laseer Sentinel Transfruction Manual. You can open it from the Help menu or from the Windows Start menu under Datalogic>DLSentinel>x.s.x(pii version)>Documentation.		

DLSentinel will enter Discovery mode to search for a connected device.

File Scanner Options Help		-101×
# ⊟ ⊉ ∞ ?		
Help	Task Selection	
Cetting Started	New Safety System Configuration Create a new Safety System Configuration Open a Safety System Configuration From PC Edit a Safety System Configuration saved on PC	
Cldi on the New Safety System Configuration to advance to the Device Safety System Configuration to advance to the Device Safeton page where you can create a new configuration tran an	Modify Safety System Configuration From a Scanner on the Network Edit a Safety System Configuration From a Scanner on the Network	
offline device in the Catalogue list. Opening a Safety System Configuration allows you to load a previutely awerd configuration for the PC to change it or upload it to the scenner via the Programming item. Cick on Medify Safety System Configuration to Discover your device on the LAN and change its configuration.	Monitor a Scanner on the Network	
? Contestual Help is provided for each configuration step, just dok on the help icon in the toobar at the too. A corresponding page of collapsed Help	Read a Safety System Report Show a Safety System Report to	
descriptions opens. You can view the descriptions by diding on the parameter name with the 😨 icon.	Read a Safety System Report Show a Safety System Report from PC	
For information about using DLSenthrei GUL, refer to the DLSentinel User's Hamauk. You can open if from the Holp neuron of from the Works Start menu under Al Programs-Datalogic>DLSentinel>x.x.x(sw version) >Documentation.		
For information about using the Laser Sentinel scanner refer to the Laser.     Sentinel Instruction Hanwall. You can open it from the High neru or     from the Windows Start neru under Datalogr>DLSentnel>x.x.x(sw     version)=Documentation.		
- NOT CONNECTED		



If the Laser Sentinel and the PC LAN are not aligned, it will be necessary to set the network configuration settings. See par. 2.1.

2. Click on the white right-pointing arrow on the upper right side on the main panel to download the current configuration from the device to the PC. DLSentinel is now connected to the device.

File Scanner Options Help	)					
#18 🛛 🕬 ?						ODATALOGIC
Discovery						
Working	~					~
SLS-SA 150 h (1)		SLS-M5-0812	Test-Schino	FW: 02.01.00.20	SLS M5 master	(Q)
SLS-SA5 10.239.39.136	Q	м	Status 🔴	PW: WR	10.239.39.144	
10.239.39.136		SLS-R5	so so	SLS R5 Slave		Q
SLS-SA TEST		S0		10.239.39.146		
E SLS-SA5 10.239.39.138	Q					
Trad Ochina						
Test-Schino SLS-M5-0812	-					
10.239.39.144	Q					
Slave no. 1						
NOT CONNECTED						

### 2.2.1 Configuration Settings

The first page is the **Configuration Settings** page, which contains information about the application.

e Scanner Options Help		
🕈 🕒 🕼 🖾 🤶		
Schino SLS-M5-0812 M 958001040	Configuration Progra	umming Monitoring
Demo Settings		
SLS-R5		Configuration Settings
958001070	Application	
		EXPERT V Connector 12 PIN CONNECTION V
	Configuration	
	Name	
	Author	vcreta
	Description ·	
	GUI Version	2.1.0.197-RC03-FIX03
	Safety Signature	7166746043072C74458FA841E8FABEAF
	Creation Date	Wednesday, September 5, 2018 5:25:01 PM
	Cluster	
	Name	Test-Schino
	Scanner	
	Name	Schino
NNECTED 12 PIN CO		SCANNER STATUS: WORKING DEVICE IP: 10.239.39.144

- Scenario to select the configuration type (depending on the application).
  - → Vertical: Same as expert but requires that Reference Points be defined in the Zone configuration (they are not optional for Vertical applications).
  - → Expert: provides the maximum configuration possibilities for the device. It contains the entire set of parameters, regardless of the device use.
- **Connector** to select the connector type (depending on the device model and application).
  - → 8-pin connection: The configuration will manage the pins relative to this connector.
  - → **12-pin connection**: The configuration will manage the pins relative to this connector (Master only).

File Scanner Options Hel	lp	= 0 X
者 🕒 😰 🖾 🤶		
		VDACACOUL
Schino 📢	•	
SLS-M5-0812	Configuration Prog	ramming Monitoring Back Next
M 958001040		
Demo Settings		
SLS-R5		Configuration Settings
958001070	Application	
	Scenario	EXPERT V
	Scenario	8 PIN CONNECTION
	Configuration	12 PIN CONNECTION
	Name	
	Author	vcreta
	Autio	
	Description	
	GUI Version	2.1.0.197-RC03-FIX03
	Safety Signature	7166746043072C74458FA841E8FABEAF
	Greatian Date	Wednesday, September 5, 2018 5:25:01 PM
	Greation Date	weanesday, september 5, 2018 5.25.01 PM
	Cluster	
	Namo	Test-Schino
	Name	rear-owning
	Scanner	
		Schino
CONNECTED 12 P	PIN CONNECTION EXPERT	SCANNER STATUS: WORKING DEVICE IP: 10.239.39.144



If you switch from 8 to 12-pin connection or vice versa after completing a configuration, the following warning message will appear:

^	WAR	NING
	Connector chang pins will b	
	ОК	Cancel

In particular:

- If one single Zone was configured, its areas will be preserved, while all associated pins will be deleted;
- If more than one Zone were configured, just the area of Zone 1 will be preserved, while all other areas and associated pins will be deleted.

It is possible to view and edit some of the parameters in the **Configuration** section, such as:

- **Name**: A name to identify the configuration.
- **Author**: A name to identify the author.
- **Description**: A short text description to identify the configuration.

- GUI Version: (Read-only). The software version of DLSentinel.
- **Safety Signature**: (Read-only). This is automatically generated to be a unique identifier that includes the scanner, configuration, creation date and time.
- Creation Date: (Read-only). The date and time the configuration was created.
- Cluster: A name to identify the cluster.
- Scanner: A name to identify the scanner.



**Note:** To proceed with the configuration, click on the white right-pointing arrow on the upper right side on the main panel. To go back to the previous page, click on the white left-pointing arrow.

### 2.2.2 Output Configuration

The **Output Configuration** displays the following parameters:



### **Output Functions**

- **OSSD:** to select the number of OSSD pairs to use for the configuration. This component is connected to the machine control system and associated with the Safety Zone. If an object is detected in the Safety Zone, the OSSD pair switches to the Off-State effectively shutting down the machine.
  - **1x2** (**One Pair**) All OSSD outputs are managed in pairs, two pins (x2). OSSD 1/1 and 1/2 are assigned Pin 5 and Pin 6 (8-pole model) or Pin 5 and Pin 8 (12-pole model).

- **Warning:** to select the number of Warning Zones to use for the configuration. This is the area outside the Safety Zone where an object can be detected but the device will not switch to the Off-State. It can be used to light a warning lamp or sound a siren.
- Alarm 1: Enabling Alarm 1 activates the "Clean Window" device error warning.
- Alarm 2: Enabling Alarm 2 activates the "Device Error" warning.
- **Muting:** Enabling the Muting function allows the scanner to operate under controlled conditions where an object can pass through the Safety Zone without the scanner switching to the Off-State. See the Laser Sentinel Instruction Manual for more details on this feature. Dedicated devices must be connected to the scanner input signals to control this function. An optional lamp can be connected to signal this condition.
- **Override Status:** When the Muting function is enabled, enabling the Override input allows forcing the safety function deactivation to clear the safety zone from a work cycle anomaly.
- **Muting Lamp:** If the Muting function is enabled, an optional muting lamp can be connected to a scanner output signal to indicate when the scanner is functioning in Muting (dangerous area temporarily unprotected).



Note: Alarm 1 and 2 are only available when the M/S configuration is selected.

### Output Signals

This parameter group assigns the signals of the output functions to the scanner pins. Each pin is also associated with color-coded cable wiring, according to safety equipment regulations and standards. The following pins are available for the **8-pin configuration**:

### • Pin 1 (White Wire)

If a Warning Zone function is selected, this pin can be assigned as the Warning output. If a Muting Lamp is selected (Muting function enabled), this pin can be assigned as the Muting Lamp output. If an Alarm is enabled, this pin can be assigned to the Alarm 1 or Alarm 2 output (M/S configuration only). Otherwise, it must be assigned here as No Function in order to be used as a Reset, Restart, Area Switch, Muting, Muting Enable or Override input. See the Zone Set and Input configuration steps.

### • Pin 5 (Gray Wire)

This pin is automatically assigned to the safety output OSSD 1/1 (pair 1, output 1).

• Pin 6 (Pink Wire)

This pin is automatically assigned to the safety output OSSD 1/2 (pair 1, output 2).

The following pins are available for the **12-pin configuration** (M/S only):

• Pin 5 (Pink Wire)

This pin is automatically assigned to the safety output OSSD 1/2 (pair 1, output 2).

### • Pin 7 (Black Wire)

If a Warning Zone function is selected, this pin can be assigned as the Warning output. If a Muting Lamp is selected (Muting function enabled), this pin can be assigned as the Muting Lamp output. If an Alarm is enabled, this pin can be assigned to the Alarm 1 or Alarm 2 output. If the Override status in enabled, this pin can be assigned to the Override output. Otherwise, it must be assigned here as No Function in order to be used as a Reset, Restart, Area Switch, Muting, Muting Enable or Override input. See the Zone Set and Input configuration steps.

### • Pin 8 (Gray Wire)

This pin is automatically assigned to the safety output OSSD 1/1 (pair 1, output 1).

### • Pin 9 (Red Wire)

If a Warning Zone function is selected, this pin can be assigned as the Warning output. If a Muting Lamp is selected (Muting function enabled), this pin can be assigned as the Muting Lamp output. If an Alarm is enabled, this pin can be assigned to the Alarm 1 or Alarm 2 output. If the Override status in enabled, this pin can be assigned to the Override output. Otherwise, it must be assigned here as No Function in order to be used as a Reset, Restart, Area Switch, Muting, Muting Enable or Override input. See the Zone Set and Input configuration steps.

### • Pin 10 (Violet Wire)

If a Warning Zone function is selected, this pin can be assigned as the Warning output. If a Muting Lamp is selected (Muting function enabled), this pin can be assigned as the Muting Lamp output. If an Alarm is enabled, this pin can be assigned to the Alarm 1 or Alarm 2 output. If the Override status in enabled, this pin can be assigned to the Override output. Otherwise, it must be assigned here as No Function in order to be used as a Reset, Restart, Area Switch, Muting, Muting Enable or Override input. See the Zone Set and Input configuration steps.

### • Pin 11 (Gray/Pink Wire)

If a Warning Zone function is selected, this pin can be assigned as the Warning output. If a Muting Lamp is selected (Muting function enabled), this pin can be assigned as the Muting Lamp output. If an Alarm is enabled, this pin can be assigned to the Alarm 1 or Alarm 2 output. If the Override status in enabled, this pin can be assigned to the Override output. Otherwise, it must be assigned here as No Function in order to be used as a Reset, Restart, Area Switch, Muting, Muting Enable or Override input. See the Zone Set and Input configuration steps.

### 2.2.3 Zone Set Configuration

Zone Set Configuration displays the following parameters:



A Zone Set defines the area within the Laser Sentinel operating range to be monitored (Safety Zone, and if present, Warning Zone). More than one Zone Set can be configured to define either separate or overlapping areas and these can be switched alternatively using combinations of input signal states.

### Zone Set Parameters

- **Zone Set No.**: to select the number of Zone Sets to use for the configuration. The default value is one Zone Set (no Area Switching). By pressing the up arrow more Zone Sets can be added. Please note that you can select max. 10 Zone Sets with the 12-pole Master Slave model, max. 3 Zone Sets with the 8-pole Master Slave model, and max. 6 Zone Sets with the Stand Alone model.
- Input Delay Max [msec]

This parameter is valid when there are at least two Zone Sets. It determines the delay to apply between switching from one Zone Set to the next. The input delay allows waiting for the Area Switching inputs to stabilize from their transient states before accepting the Zone Set. Otherwise the activation and deactivation of the inputs could put the device in undesired or invalid and temporary switching zone input combinations and therefore cause the device to enter the fault state.

The minimum input delay (default) value is 30 msec. It can be increased in 30 msec increments.

### • Zone

This parameter group allows editing the Area Switch input combinations depending on the number of selected Zone Sets.

By selecting more than one Zone Set in the Zone Set No. parameter, a number of Area Switches (AS#) equal to the number of unassigned inputs will appear in the graphic.

It is possible to set the input switch coding with specific buttons. See the table below:

x	By selecting a Zone Set through the checkbox and clicking on this button, the Zone Set will be removed.
0101 1100 1010	By clicking on this button, the Zone Set Combination will be automatically set.
1	By clicking this button, the created combination will be verified.

Alternatively, you can click inside the AS box to manually change its state. All Area Switching must differ by two input bit states to be valid.

### Input Signals

This parameter group assigns the signals of the input functions to the scanner pins. Each pin is also associated with color-coded cable wiring, according to safety equipment regulations and standards. The following pins are available for the **8-pin configuration**:

### • Pin 1 (White Wire)

If this pin has been assigned as a Warning, Alarm or Muting Lamp output, it is not available (shown in gray). If it hasn't been assigned to any output, it can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

### • Pin 3 (Green Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input. See the Input configuration step. If this input is not used, select No Function.

### • Pin 4 (Yellow Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input. See the Input configuration step. If this input is not used, select No Function.

The following pins are available for the **12-pin configuration**:

### • Pin 3 (White Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

### • Pin 7 (Black Wire)

If this pin has been assigned as a Warning, Alarm or Muting Lamp output, it is not available (shown in gray). If it hasn't been assigned to any output, it can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

### • Pin 9 (Red Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

• Pin 10 (Violet Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

• Pin 11 (Gray/Pink Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

### Zone Sets configuration example:

• If the configuration includes only one Zone Set, there is no area switching, so it is not necessary to assign any input to an area switch.

File Scanner Options I	Help	- IO   X
🔺 🖻 🕼 🖾  ?	•	ODATALOGIC
Schino SLS-M5-0812 M 958001040	Configuration Programming Monitoring	Back Next
Demo Settings SLS-R5 958001070	Zone Sets	Zone Set configuration
	Zone Set No. 1	
	X Zone 1100 1010	Pin 3 NO FUNCTION V White (WH)
	Zone Set 1	Pin 3         NO FUNCTION         V         White (WH)           Pin 7         WARNING 1         V         Black (BK)
		Pin 9 NO FUNCTION V Red (RD)
		Pin 10 NO FUNCTION V Violet (VT)
		Pin 11 NO FUNCTION v Gray/Pink (GN/PK)
		ζ
CONNECTED 12	2 PIN CONNECTION EXPERT SCANNER STATUS: WORF	KING DEVICE IP: 10.239.39.144

• If two Zone Sets are selected, **Area Switching** is required, and so two inputs must be assigned to the area switch functions (AREA SWITCH 1, AREA SWITCH 2).

File Scanner Options Help		-   0   >
🔺 🕒 🕼 🖾 🤶		OIDOJATAGC
Schino SLS-M5-0812 M 958001040	Ξ Conliguration Programming Monitoring	Back Next
Demo Settings SLS-R5 958001070	Zone Set configuration	
	ZoneSet No. 2 🗘 Input Delay Max [msec] 30 🗘	
	X Zone 100 Input signals	
	Area Switch1 Area Switch2 Pin 3 AREA SWITCH 1	V White (WH)
	Zone Set 1 0 0 Pin 7 WARNING 1	V Black (BK)
	Zone Set 2         0           Pin 9         AREA SWITCH 2	✓ Red (RD)
	Pin 10 NO FUNCTION	Violet (VT)
	Pin 11 NO FUNCTION	✓ Gray/Pink (GN/PK)
	4	
CONNECTED 12 PIN CO	NNECTION EXPERT SCANNER STATUS; WORKING DEVICE IP: 10.239.39.144	

- If six Zone Sets are selected (in this case the Warning function is not available):
  - for the 8-pin configuration, Pins 1, 3 and 4 must all be assigned to the Area Switch functions (AREA SWITCH 1, AREA SWITCH 2 and AREA SWITCH 3).
  - for the **12-pin configuration**, three pins must be assigned to the **Area Switch** functions (AREA SWITCH 1, AREA SWITCH 2 and AREA SWITCH 3).

-0812	Configuration Progr	ramming Monits	ring								Back	
ttings R5						Zone Set	configuration					
070 Z	one Sets											
-	ZoneSet No.	6		Input I	Delay Max [msec] 30		\$					
- Line -	X Zone						Input signals					
		Area Switch1						Pin 3 AREA SWITCH 1	~	White (WH)		
	Zone Set 1	0	0	0	1			Pin 7 AREA SWITCH 2	~	Black (BK)		
	Zone Set 2	0	0	1	1			Pin 9 AREA SWITCH 3	~	Red (RD)		
	Zone Set 3	0	0	1	0			Pin 10 AREA SWITCH 4	~	Violet (VT)		
	Zone Set 4	0	1	1	0			Pin 11 NO FUNCTION	v	Gray/Pink (GN/PK)		
	Zone Set 5		1									
	Zone set o	0		0	1							
	Zone Set 6	0	1	0	0							

• If ten Zone Sets are selected (12-pin configuration only, the Warning function is not available), Pins 3, 7, 9, 10 and 11 must all be assigned to the **Area Switch** functions (AREA SWITCH 1, AREA SWITCH 2, AREA SWITCH 3, AREA SWITCH 4 and AREA SWITCH 5).

Contiguration Pro	gramming Monit	oring								<b>K</b> Back
						Zone Set cont	liguration			
Zone Sets										
Zone Set No.	10		Input E	elay Max [mse	c] 30	0				
X Zone 🎬 🗸							Input signals			
Zone Set 1	Area Switch1	Area Switch:	Area Switch3	Area Switch4	Area Switch5			Pin 3 AREA SWITCH 1	V White (WH)	
								Pin 7 AREA SWITCH 2	<ul> <li>Black (BK)</li> </ul>	
Zone Set 2	0	0	1	1	0			Pin 9 AREA SWITCH 3	<ul> <li>Red (RD)</li> </ul>	
Zone Set 3	0	0	1	0	1			Pin 10 AREA SWITCH 4	Violet (VT)	
Zone Set 4	0	1	1	0	0			Pin 11 AREA SWITCH 5	<ul> <li>Gray/Pink (GN/PK)</li> </ul>	
Zone Set 5	0	1	0	1	0					
Zone Set 6	0	1	0	0	1					
Zone Set 7	1	1	0	0	0					
Zone Set 8	1	0	1	0	0					
Zone Set 9	1	0	0	1	0					
Zone Set 10	1	0	0	0	1					



If more Zone Sets are selected, make sure to create a valid input coding combination: the Zone Sets must differ by two input bit states with respect to any other Zone Set. Otherwise, by clicking on the validation button a pop-up window that shows the coding validation error will be displayed.

Xz	one 1100	l		
	Zone Set 1	Area Switch1	Area Switch2	Area Switch3
	Zone Set 2	0	1	0
	Zone Set 3		Coding V	alidation
	Zone Set 4		Coding not	t binomial
	Zone Set 5		0	K
	Zone Set 6	1	0	0

### 2.2.4 Input Configuration

The Input Configuration displays the following parameters:

Demo Settings ( SLS-M5-0812 958001040	E Configuration Programming Monitoring					Back	Na
Demo Settings SLS-R5 958001070			Input configuration				
	Input functions	Safety Zone	Input signals	Pin 3 NO FUNCTION	V White (WH)		
	Restart m						
	Recovery time	[msec] 200		Pin 7 WARNING 1	V Black (BK)		
	Muting ty	BIDIRECTIONAL V		Pin 9 NO FUNCTION	<ul> <li>Red (RD)</li> </ul>		
	Max Muting activation	on delay [sec] 4		Pin 10 NO FUNCTION	Violet (VT)		
	Timeout [min] - (0 fo	or no timeout) 10		Pin 11 NO FUNCTION	Gray/Pink (GN/PK)		
	Overrid	e DISABLED v		Рыг П	• Grayrink (GRPR)		

### Input Functions

- **Restart Mode:** For each Safety Zone you can select the restart mode.
  - → Automatic: The Laser Sentinel automatically returns the OSSD pair to the On-State after all detected objects are removed from the Safety Zone and the configured Recovery Time elapses.
  - → Manual: The Laser Sentinel returns the OSSD pair to the On-State after all detected objects are removed from the Safety Zone and a manual Restart switch (push-button) is pressed for at least 500 msec. If the Restart switch is pressed while an object is still inside the Safety Zone, the Laser Sentinel switches to a failure lockout state and must be Reset.
- **Recovery time:** This parameter is only significant for Automatic Restart Mode. The recovery time is the time between the object removal from the Safety Zone and the OSSDs achieving the On-State. Select the time to elapse before the OSSD pair returns to the On-State. The minimum Recovery Time is 200 msec. This can be increased to 60000 msec in 1 msec increments.
- **Muting Type:** The Muting function can be used in two different configurations:
  - → **Unidirectional**: This is when objects can pass through the Safety Zone from only one direction. It requires two Muting sensors be connected to the Laser Sentinel inputs.
  - → **Bidirectional**: This is when objects can pass through the Safety Zone from both directions. It requires four Muting sensors be connected to the Laser Sentinel inputs.
- **M coeff.:** For Unidirectional Muting, the M coefficient is the delay multiplier that causes the Muting function to end. This is the multiplier of the activation delay between the two sensors. It can be set from 2 to 16.
- Max Muting Activation Delay: This is the maximum delay between the Muting sensors activation that will still allow the Muting function to be enabled. If the second Muting sensor is activated after this max. delay, the Laser Sentinel will not enter Muting.

• **Timeout:** This defines the maximum duration for the Muting function regardless of the Muting sensors state. The values range from 10 to 1080 minutes. If set to 0, the Muting function is indefinite. This means that Muting will continue as long as the Muting conditions exist.

Attention: User is warned that the latter setting is not compliant with IEC 61496-1.

- **Override:** When the Muting function is enabled, enabling the Override input allows forcing the safety function deactivation to clear the safety zone from a work cycle anomaly.
- **Override Mode:** The available override modes are single line pattern, edge and trigger. See the Laser Sentinel Instruction Manual for details.

### Input Signals

This parameter group assigns the signals of the input functions to the scanner pins. Each pin is also associated with color-coded cable wiring, according to safety equipment regulations and standards. The following pins are available for the **8-pin configuration**:

### • Pin 1 (White Wire)

If this pin has been assigned as a Warning, Alarm or Muting Lamp output, it is not available (shown in gray). If it hasn't been assigned to any output, it can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

### • Pin 3 (Green Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input. See the Input configuration step. If this input is not used, select No Function.

### • Pin 4 (Yellow Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input. See the Input configuration step. If this input is not used, select No Function.

The following pins are available for the **12-pin configuration**:

### • Pin 3 (White Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

### • Pin 7 (Black Wire)

If this pin has been assigned as a Warning, Alarm or Muting Lamp output, it is not available (shown in gray). If it hasn't been assigned to any output, it can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

### • Pin 9 (Red Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

### • Pin 10 (Violet Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a
manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

#### • Pin 11 (Gray/Pink Wire)

This pin can be assigned here as an Area Switch input. Selecting No Function here allows it to be assigned to one of the Muting input signals or the Muting Enable signal, the Muting Override input signal or as a manual Restart and/or Reset input (see the Input configuration step in par. 2.2.4). If this input is not used, select No Function.

# 2.2.5 Detection Configuration

The **Detection Configuration** displays the following parameters:

Scanner Options Help		
Schino SLS-M5-0812 958001040	E Configuration Programming Monitoring	Back Nex
Demo Settings SLS-R5 958001070	Detection configuration	
	Worst Cluster response time [msec]	
_	Detection Safety Zone Number of Scans 2 v	Warning Zone 1 Number of Scans 2 ~
	Response time [msec] 72 Detection capability [mm] 70 v Dust Filter Level LOW v	Response time [msec] 72 Detection capability [mm] 70 v Dust Filter Level LOW v
	5500	40000

#### **Detection Parameters**

- Number of Scans: Select the number of scans required to validate detection. This parameter has a direct impact on the **Response Time**, which is the time from when an object is detected in the Safety Zone to when the OSSD switches to the OFF-State. The Number of Scans determines the Response Time, which ranges from 62 to 482 ms in 30 ms increments.
- **Detection Capability:** The ability to detect an object of given dimensions within the detection zone. The detection capability for these models is either 40 mm or 70 mm. Objects greater than or equal to the selected value can be detected both for the Safety and Warning Zones.
- **Dust Filter Level** must be set according to different conditions specific to the application. In general, it is the sensibility to various levels of airborne particles that impact the response of the Laser Sentinel detection.
  - → **High** Dust Filter Level is used in dirty environments to filter (ignore) detection of airborne particles from being confused with objects to detect. The Laser Sentinel is less sensitive to dust and therefore avoids shutting down the machinery unnecessarily.
  - $\rightarrow$  Mid
  - → Low Dust Filter Level is used in cleaner environments where airborne particles have little effect on object detection.

Dust Filter Level should be set to the lowest value that still allows the machinery to work without detections due to dust.



**Note:** In addition to the level of airborne particles in the Laser Sentinel environment, some special lighting conditions also affect the detection sensibility. These conditions are:

- high reflective backgrounds within 3 meters of the Safety Zone boundary
- the presence of bright light within +/- 5° of the detection plane.

# The additional distance must be included in the Minimum Safety Distance calculations for these cases.

See the graphs in the Laser Sentinel Instruction Manual for these additional distances.

Scanner Options Help		-0
🛉 🖻 😰 🖾 🤶		
Schino SLS-M5-0812 M 958001040	E Configuration Programming Monitoring	Back Next
Demo Settings SLS-R5		
SLS-R5	Detection configuration	
958001070	Response time	
	Worst Cluster response time [msec] 72	
	Detection	Manual 7 4
	Safety Zone Number of Scans	Warning Zone 1 Number of Scans
	2 ~	2 ~
	Response time [msec]	Response time [msec]
	72	72
	Detection capability [mm]	Detection capability [mm]
	Dust Filter Level	Dust Filter Level
	LOW V	LOW V
	5500	50000
	· · · · · · · · · · · · · · · · · · ·	
	5500	40000
	For additional distance that must be included in the Minimum Safety Distance calculations related to the Dust see the Laser Sentinel Instruction Manual.	Filter Level setting,
	see the Laser Sentinel Instruction Manual.	
INECTED 12 PI	N CONNECTION EXPERT SCANNER STATUS: WORKING DEVICE IP: 10.239.39.144	

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**Note:** The response time of the Cluster corresponds to the response time of the safety output of the device that goes into STOP and the network latency time. If the device in STOP is the master, no latency must be added; if the slaves are in STOP, then the latency time must be added to each device response time.

# 2.2.6 Zones Configuration

In the **Zones Configuration**, tools are provided to draw the Safety and Warning Zones as well as Reference Points. It is possible to select different shapes and different functions to manage the areas on the graph.

The panel on the left side allows selecting the areas to handle on the graph (Safety, Warning, or Reference Points) and managing them individually. See the paragraph on Selecting and Visualizing Areas on the Graph.





**Note:** This is the last step in defining the configuration. To complete configuration (load it onto the scanner, test it and **Accept** it), see Programming and Monitoring in chapter Programming and Monitoring Functions.



Click this button to free-hand draw an area by holding pressed the left button of the mouse and dragging it across the graph. Once finished, release the left button.





1

Click this button to draw a straight-edged area by holding pressed the left button of the mouse and dragging it across the graph. Once finished, release the left button.



## ICON



#### DESCRIPTION

Click this button to draw a circle shaped area with its center at the scanner by holding pressed the left button of the mouse and dragging it across the graph. Once finished, release the left button.



# ICON

#### DESCRIPTION

T

Click this button to draw an arc shaped area by holding pressed the left button of the mouse and dragging it across the graph. Once finished, release the left button.





Click this button to draw a polygon shaped area. Left-click and release the mouse button on a point in the graph and drag the mouse to draw the area. Left-click again to start the next edge of the polygon area. Once finished, double-click the left button.









Note: To activate this function, select the REFERENCE POINT area on the left pane.

Specify the distance tolerance of the reference point from the scanner along the ray (+= farther from the scanner, - = closer to the scanner).

There must be a minimum of 3 and a maximum of 15 Reference Points. Reference points monitoring is a safety function used to monitor any change in position of the scanner, a protective structure or a moving structure located at the specified reference point. These structures either allow or prevent access to the dangerous area and are therefore outside the monitored Safety Zone. When the device detects a change in position at the Reference Points exceeding the specified tolerance, the OSSD goes to the OFF-state. This function is required for Vertical applications. See the Laser Sentinel manual for more details.



Click this button to draw an area by selecting the type of shape (circle, arc or polygon) and directly inserting the measurements and coordinates.



# Editing Drawn Objects

Once the area has been drawn, it is possible to access an edit menu by right-clicking on the selected area. This menu allows:

- copying a drawn object between Warning and Safety of the same Zone
- moving a drawn object between Warning and Safety of the same Zone
- saving a drawn object
- editing a drawn object
- deleting a drawn object





Click this button to move (drag) the graph in any direction. Once finished, re-click on the button.



#### DLSENTINEL

# **COLATACO**







Click this button to zoom in on the graph. Clicking multiple times continues to zoom in.





Click this button to zoom out on the graph. Clicking multiple times continues to zoom out.





Click this button to toggle the graph coordinates between Cartesian and Polar.





Click this button to show the area points and edit them. Once finished, re-click on the button.



#### ICON



# DESCRIPTION

Click this button to enter the Teach In feature. This function scans and shows the area surrounding the device. It displays a white area that is free from obstacles and therefore can be assigned to a safety or a warning zone. The grey areas are detected obstructions.





This function is the Teach In Area Assignment, to assign a zone type to the detected white area. After choosing Teach In, select the checkbox of either the safety zone or warning zone in the left pane and then click this button to assign it.





Teach In and Draw Teach in Zone are only available if the device is online.

# Selecting and Visualizing Areas on the Graph

The panel on the left side allows selecting the areas to handle on the graph (Safety, Warning, or Reference Points) and managing them individually.



By clicking on the **label name** (outside the check box), it is possible to highlight a specific area, e.g. a Safety Zone or a Warning Zone.

By clicking on the **checkbox**, it is possible to select and edit a specific area.



The combination of these selections allows you to show/hide the areas together or individually.

**Note:** This is the last step in defining the configuration. To complete configuration (load it onto the scanner, test it and **Accept** it), see Programming and Monitoring in chapter 4.

# 2.3 NEW CONFIGURATION SELECTION

1. Click on the New Configuration task to create a new configuration and save it on a local PC for upload to a device at a later time (Offline Configuration).

ile Scanner Options Help			- 0 ×
者 🖻 🕼 🖾 🖓 ?			
Help	Task Sele	ction	
Getting Started		New safety system configuration Create a new safety system configuration	
		Open a safety system configuration from PC Edit a safety system configuration saved on PC	
	G	Modify safety system configuration from a Scanner on the network Edit a safety system configuration from a Scanner on the network	
Click on the New Safety System Configuration to advance to the Device Selection page where you can create a new configuration from an offline device in the Catalogue lst. Opening a Safety System Configuration allows you to	₽¥	Monitor safety system Monitor a Scanner on the network	
Opening of Survey of state Configuration from the PC to change it or upload it to the scanner via the Programming item. Click on Modify Safety System Configuration to Discover your device on the LAN and change its configuration.	<b>1</b> 0	Read a safety system report from a Scanner on the network Show a safety system report from a Scanner on the network	
?		Read a safety system report from PC Show a safety system report from PC	
Contextual Help is provided for each configuration step, just dick on the help icon in the toobar at the top. A corresponding page of collapsed Help descriptions opens. You can view the descriptions by clicking on the parameter name with the @ icon.			
я.			
For information about using DLSentinel GUI, refer to the DLSentinel User's Manual. You can open it from the Help menu or from the Windows Start menu under Al Programs-Dotatalogic-DLSentinel>x.x.x(aw version) >Documentation.			
For information about using the Laser Sentinel scanner refer to the Laser Sentinel Instruction Manual. You can open it from the Help menu or from the Windows Start menu under Datalogic>DLSentinel>x.x.x(sw version)>Documentation.			
~			

2. Click on the device in the catalogue list to load it into the task area.

File Scanner Options Help	
🔺 🕒 🕼 🖾 🤶	ODATALOGIC
Catalogue	
Scanner	
SLS-SA-5	
SLS-M5-0812	
Slave	
SLS-R5	
	CLICK ON DEVICE TO CREATE A NEW CONFIGURATION
NOT CONNECTED	

- 3. Click on the white right-pointing arrow on the upper right side on the main panel to open the offline configuration. You can now create your configuration and save it on your PC. See the subparagraphs under par. 0 for configuration details.
- 4. Save the configuration on a file on your PC. See par. 2.4.

# 2.4 SAVE THE CONFIGURATION

Once the configuration is done, it is possible to save it on the PC by clicking on File > Save.





# 2.5 OPEN A PREVIOUSLY SAVED SAFETY SYSTEM CONFIGURATION FROM PC

1. Click on the Open a Safety System Configuration from PC task to open and upload a previously saved configuration onto a device.



2. Select the Configuration File to open.

🖳 Open		×	- 0 X
← → · · ↑ 📴 → This PC → Documents → SL	LS v 🖉 Search SLS	P	
Organize 👻 New folder	(EE 👻	•	
This PC Name	Date modified	Туре	
🗊 🧊 3D Objects	No items match your search.		n
Desktop			ation
Documents			
Downloads			tion from PC
Music			ved on PC
Videos			
Local Disk (C:)			tion from a Scanner on the network
grpfiles (\\itasıv:			im a Scanner on the network
🚽 🛨 dlfs (\\dl.net) (L:			
💿 🛫 pubfiles (\\itasrv			
) 🤿 Network 🗸 <		>	
File name:	<ul> <li>MIB XML File bit (xml) (*.;</li> </ul>	v (lmv	
			m a Scanner on the network Scanner on the network
	open	uncer	Scaliner on the network
	Read a safety system	report fro	m PC
?	Read a safety system in Show a safety system rep		
Contextual Help is provided for each configuration step, just click on the help icon in the toolbar at the too. A			
Just click on the help icon in the toolbar at the top. A corresponding page of collapsed Help descriptions opens. You can view the descriptions by clicking on the			
parameter name with the 100 icon.			
11			
For information about using DLSentinel GUI, refer to the DLSentinel User's Manual. You can open it from the			
Help menu or from the Windows Start menu under All Programs>Datalogic>DLSentinel>x.x.x(sw version) >Documentation.			
>Documentation.			
For information about using the Laser Sentinel scanner refer to the Laser Sentinel Instruction Manual. You			
can open it from the Help menu or from the Windows Start menu under Datalogic>DLSentinel>x.x.x(sw			
version)>Documentation.			

3. Once the configuration is open, click on the Programming item. The Discovery procedure will discover the connected device.

Schino SLS-M5-0812 958001040	Configuration Programming Monitoring	Back
Demo Settings SLS-R5	Configuration Settings	
958001070	Application Scenario EXPERT V Connector 12 PIN CONNECTIO	N 🗸
	Configuration	
	Name	
	Author vcreta	
	Description	
	GUI Version 2.1.0.196-RC03-FIX02	
	Safety Signature 000000000000000000000000000000000000	
	Creation Date Thursday, September 6, 2018 4:22:45 PM	
	Cluster	
	Name Test-Schino	
	Scanner	

4. Click on the device to load it into the task area.

File Scanner Options Help						
Discovery						
						Next
Working	^	SLS-M5-0812	Test-Schino	FW: 02.01.00.20	SLS M5 master	Q
SLS-SA TEST	Ŷ	м	Status 🔴	PW: WR	10.239.39.144	
10.239.39.138	. <del>A</del> .	SLS-R5	<b>S</b> 0	SLS R5 Slave		Q
Test-Schino		SO		10.239.39.146		
ESLS-M5-0812 10.239.39.144	Q					
Slave no. 1						
NOT CONNECTED						

5. Click on the white right-pointing arrow on the upper right side on the main panel. The Programming page will appear. Here you can **Load** the selected configuration to the scanner.

M BS001640  Demo Settings SL-F6 SS6001070  Programming	e Scanner Options Help				ODATAL	.OGIC
SLB-RS 56001070  Configuration Upload  Transfer the configuration from the PC to  Load  Configuration Value  Programming  CONFIGURATION  CONFIGURATION CONF	SLS-M5-0812	E Configuration Programming Monitoring			Bac	k Next
Configuration Upload  Transfer the configuration from the PC to the Scanner  Load	SLS-R5			Programming		
Transfer the configuration from the PC to the Scanner	358001070	Configuration Upload	BA			QQC
Transfer the configuration from the PC to the Scanner						
				1. Omfgorein.     2. Oktet     3. Division     4. Oreventz     5. Oktyol     6. Zones.     7. Input.     8. Divestion.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Page 147		Load				
1 017 >				<b>〈</b> 1 0f7	>	

First the configuration will be validated and then you will be prompted to enter the password to change the current configuration to the new one.

6. Enter the password and click OK.

SLS-M5-0812 M     Configuration     Programming     Monthly       Settings S450/1070     Settings     Figuration     Programming	Te Scanner Options Help					
Subject of the configuration from the PC to C		Configuration Programm	ning Monitoring			> Next
Transfer the configuration from the PC to the Scanner	SLS-R5			Programming		
Lese Sentine		Configuration Upload	₽ 🖨			<b>લ્</b> લ્ <b>୯</b>
Lod		Transfer the configuration	n from the PC to			
<li>d7 &gt;</li>			Password	a a a a a a a a a a a a a a a a a a a	1	
				✓ 1	of 7 💙	

7. The scanner status will now switch to Off-Duty and the user is prompted to continue to load the new configuration onto the scanner.

# **COLATACO**

File Scanner Options	Help					- 0 X
🔺 🕒 😰 🖾	?					OGIC
	14					
SLS-M5-0812		Configuration Programming Monitoring				> Next
M 958001040						Next
Demo Settings			Pro			
SLS-R5 958001070			Prog	gramming		
335001070		Configuration upload	<b>a</b>			€QC
					ODATALOGIC	
		Transfer the configuration from the PC to			Laser Sentinel	
		the scanner		Summary 1. Configuration	2	
			WARNING		2	
			Scanner status change in	Off-Duty		
			Continue?	on-buty.	3	
			OK Cano	cel		
		Load				
				Page 1 of 7		
				1 of 7	>	
CONNECTED	12 PIN CO	NNECTION EXPERT SCANNER STAT	JS: WORKING SC	CANNER IP: 10.239.39.154		

- 8. Click on the **Monitoring** item to verify the configuration. See par. 3.2.
- 9. Then click on Programming to **Accept** the new configuration and finalize it. See par. 3.1.

# **3 PROGRAMMING AND MONITORING FUNCTIONS**

## 3.1 PROGRAMMING

Programming is a DLSentinel function that allows uploading a configuration to the device, generating the Safety Report and validating the uploaded configuration (after testing it through the **Monitoring** function, refer to par. 3.2).

The steps below show a proper Programming procedure:

1. Once the configuration has been created or loaded from the PC, enter the **Programming** function.

A **Report** file is generated by DLSentinel.

File Scanner Options H	Help		
Schino SLS-M5-0812 M 958001040	Configuration Programming Monitoring		Back Next
Demo Settings SLS-R5 958001070		Programming	
2000 10/0	Configuration Upload Transfer the configuration from the PC to the Scanner Load	Emerge         0.9 m/m         0.9 m/m	C C
		Page	of 7
CONNECTED 12	2 PIN CONNECTION EXPERT SCANNER STATUS	: WORKING DEVICE IP: 10.239.39.144	

The Safety Report is a file that sums up all the parameters selected for a configuration and is generated by DLSentinel after uploading a configuration. The Report file is displayed on the right side of the panel. It is possible to save it as a PDF file and print it.

Make sure to read the Safety Report and check all the selected parameters.

File	Scanner	Options	Help								- 0 X
#	1 🖪 🗋	E	?								.OGIC
Т М	Schino SLS-M5-0812 958001040		•	Configuration	Programming	Monitoring				Bac	
	Demo Setting SLS-R5 958001070	IS						Programming			
				Configuratio	on Upload		<b>B</b>				<b>QQC</b>
				Transfer the	e configuration fro	m the PC to	ſ			Caser Sentinel	
				ule scame	I			Summary Conjegarium 2 Oater 3 Oeter 4 Convector 4 Convector 6 Ouput 6 Zones 7 Riput. 8 Detection. 8 Zones Ref.			
				Load	d						
							L		Page 1 of 7	>	
CONN	ECTED		12 PIN CO	NNECTION	EXPERT SC	ANNER STATUS:	WORKING	DEVICE IP: 10.239.39.1	144		



Note: The Safety Report displays the new and the previously used parameters (marked in red).

2. In the **Configuration Upload** section, click on the **Load** button to upload the configuration from the PC to the device. First the configuration will be validated and then you will be prompted to enter the password to change the current configuration to the new one.



While uploading the configuration onto the device, Laser Sentinel will enter the Off status.

Once the new configuration is uploaded, Laser Sentinel will display an icon with a white background like the one below indicating that the configuration is pending acceptance by the user.



Example Pending Configuration Acceptance Icon displayed

- 3. Test the configuration functioning by entering **Monitoring**. See par. 3.2.
- 4. After testing it and checking the **Report**, **Accept** or **Reject** the configuration in the **Validation** section.

File Scanner Options	Help <b>?</b>							
Schino SLS-M5-0812 M 958001040	•	Configuration Program	ning Monitoring				Bac	
Bemo Settings SLS-R5 958001070				F	rogramming			
308001070		Configuration Upload						<b>QQ</b> C
		Transfer the configuratio	n from the PC to				DATALOGIC     Laser Sentinel	
		Load		Configuration v The configuration waildated	s successful	Page 1 df 7	>	
CONNECTED	12 PIN CONN	NECTION EXPERT	SCANNER STATU	S: WORKING	DEVICE IP: 10.2	239.39.144		

After **Acceptance**, the configuration will be finalized on the device. Laser Sentinel will display an icon with a black background like the one below indicating that the configuration has been accepted by the user.



**Configuration Accepted Icon displayed** 



By validating the configuration, you take on responsibility for the created configuration and accept any hazards due to configuration errors.



If you **Reject** the new configuration, the previous configuration will be finalized on the scanner.

# 3.2 MONITORING

Monitoring is a DLSentinel function that allows you to check the proper functioning of the created configuration by monitoring the current working area. You have access to this function only by selecting an online device.



With the Monitoring function, the following information can be checked:

- The OSSDs GO/STOP status.
- The connector pin assignment, colors and functions.
- If the Laser Sentinel detects an object in the Safety and Warning zones.
- Any diagnostic errors that caused the OSSDs Off status.
- The surrounding space detected by the device in real time.
- The switching among the Zone Sets.
- The selected Parameters



On the panel at the lower left corner, DLSentinel shows the device status (if it is correctly functioning). It is also possible to view some parameters, e.g. the pin assignment and the response time.



**Note:** If Monitoring is selected before uploading a new configuration, it displays the previous configuration and the present OSSDs and Warning status.

The table below shows the Monitoring Menu.

ICON	DESCRIPTION
Ö	Click this button to save the Monitoring info in a text file (.txt).
*	Click this button to toggle the graph coordinates between Cartesian and Polar.
inch	Click this button to toggle the graph unit of measurement between inches and millimeters.
+	Click this button to move (drag) the graph in any direction. Once finished re-click on the button.
Ð	Click this button to zoom in on the graph. Clicking multiple times continues to zoom in.
Q	Click this button to zoom out on the graph. Clicking multiple times continues to zoom out.



**Note:** If Errors are detected, the monitoring function displays a popup window with all the detected errors. The device will switch into a Lock status.



Note: To go back to Programming, click on the Programming item or on the white left-pointing arrow.

# APPENDIX

## **ACCESS CONTROL**

#### Assign or change passwords

To assign or change the password, the device must be connected (Online).

1. In the DLSentinel Device Selection, click on Scanner and select Settings > Change Access Controls.

Scanner Options Help					
Discovery Direct connect					
Direct connect     Open configuration from scanner					
Open shape from file					> Next
ort a Apply configuration					
Read from scanner	SLS-M5-0812	Cluster Demo	FW: 02.01.00.58	SLS M5 master	Q
Settings >	Change network configuration				А
	Change access controls	Status 🔴	PW: WR	10.239.39.153	
Update firmware 10.239.39.153	Reset password	<b>S</b> 0	SLS R5 Slave		Q
Slave no. 1	Factory reset				9
Cluster GUI	30		10.239.39.155		
SLS-M5-0812	Q				
10.239.33.108	.9.				
Slave no. 3					

2. To change or assign the password or access type, you must enter the current one.

Here the user must enter the DLSentinel password to proceed (default password "admin", if not changed).

File Scanner Options Help		
Discovery		> Next
Working         A           Cluster Demo	SL5-M5-0812 Cluster Demo FW: 02.01.00.58 SL5 M5 master M Status • PW: WK 10.230.31.13	Q
SLS-M5-0812 10.239.39.153 Slave no. 1 Cluster GUI	SL5-R5         50         SL5.R5 Slave           S0         10.219.38.155	0
SLS-MS-0812 10.239.33.108 Slave no. 3		
KOT COMPECTED	Passend         OK         OK	

- 3. Enter the new password twice then choose the password type:
  - Write Only (required only when loading the configuration to the device),
  - Read / Write (required when connecting and when loading a configuration to the device),
  - None (no password required).

File Scanner Options Help		-laix
者 🖻 🕼 🖾 🦓		<b>OIDOJATAGO</b>
Discovery		> Next
Working	SLS-M5-0812  Cluster Demo PW: 02.01.00.58 SLS M5 master	Q
Cluster Demo	M Status PW: WR 10.239.39.153	٦e
SLS-M5-0812 10.239.39.163 Slave no. 1	SLS-R5 S0 SLS R5 Slave	Q
Cluster GUI	S0 10.239.39.155	
SL S-M5-0812 10.239.33.108		
Slave no. 3	New password	
	Venty	
	○ None	
	OK Cancel	
NOT CONNECTED	SCANNER STATUS: WORKING	

4. Then click OK to proceed.

#### Reset a password

To reset a password, the device must be connected (Online).

1. In the DLSentinel Device Selection window, click on Scanner and select Settings > Reset Password.

File Scanner Options Help			
Discovery     Direct connect			ODATALOGIC
Open configuration from scanner			> Nest
Open shape from file			Net
Worl 🕺 Apply configuration	A		(1857)
Read from scanner +	SLS-M5-0812	Cluster Demo FW: 02.01.00.58 SLS M5 master	Q
Settings	Change network configuration	Status 🔴 PW: WR 10.239.39.153	
Update firmware 10.239.39.153	Change access controls		
Slave no. 1	Reset password Factory reset	S0 SLS R5 Slave	°Q <sup>i</sup>
Cluster GUI		10.239.39.155	
10.239.33.108	Q		
Slave no. 3			
NOT CONNECTED			

2. Contact Datalogic Technical Support and send the serial and the magic number shown. A new password will be communicated to the User.

File Scanner Options Help		
Discovery		> Next
Working         •           Chaster Demo         10.300.31103           Sizer Ro.         1           Chaster GUI         10.300.31103           Sizer Ro.         1           Sizer Ro.         3	SL-5-45-012 M         Cluster Demo Status         PV: 02.01.0.0.51         SL.5 M5 master           M         Example         PV: VR         10.220.20.153           SL-6-R5         Example         50         SL.5 R5 Slave           S0         Example         10.220.30.155	2 2 2

## FIRMWARE UPDATE

To update the firmware, proceed as follows:

- 1. Start the DLSentinel GUI and select the new configuration task.
- 2. Enter the Discovery mode and select an online device.
- 3. Once the device is selected, click **Scanner** on the menu and choose the firmware update option.
- 4. Enter the device password (default password "admin", if not changed) to access the firmware update option.

Scanner Options	Help					
Discovery	4					Next
Working	•					
SLS-SA TEST SLS-SA5	Q	SLS-M5-0812 M	Test-Schino Status	FW: 02.01.00.20 PW: WR	SLS M5 master 10.239.39.144	Q
10.239.39.138	.A.	SLS-R5	S0	SLS R5 Slave		Q
Test-Schino SLS-M5-0812 10.239.39.144	Q	S0		10.239.39.146		
Slave no. 1			<u> </u>			
		2	Password			
			ОК	Cancel		
CONNECTED						

- 5. In the Firmware update section (**Package section**), click on ZIP Archive to search and select a previously downloaded new firmware version (from the Datalogic website).
- 6. Once the new firmware version is selected, click on Load (**Configuration Upload**). During the Firmware Update the device will go offline.

Firmware uploading40%
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- 7. When the firmware version is completely loaded, the user enters the Offline-Test mode to create a configuration and test the new firmware version.
- 8. If the firmware version is compatible with the device (i.e. the device configuration is correct and with no failures) click on Accept, otherwise click on Reject (**Validation**).

# FACTORY RESET

The Factory Reset procedure resets the default password ("admin"), the password type (see Access Control), the device IP address and any saved configuration.

To perform a Factory Reset, proceed as follows:

- 1. In the DLSentinel Device Selection, click on Scanner and select Settings > Factory Reset.
- 2. A message will appear informing the user that all devices of the cluster will be restored to factory configuration and the current configuration will be lost. Click OK to proceed.

WAR	NING		
All devices of the cluster will be restored to factory configuration. The current configuration will be lost.			
ОК	Cancel		

- 3. A new window will prompt the user to enter the device password (default password "admin", if not changed).
- 4. A message will appear informing the user that the operation will take a few minutes. Subsequently, all devices will be restarted. Click OK to proceed.



5. At completion, the Getting Started page will appear and the device will show a "Waiting Configuration" message (see icon below).





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