User Manual
AL900-0100

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QM-Formular (1186 / 2017-09-20, vl):

	Edition-History	
Ed.0	2022-02-02, mja	Initial Version
Ed.1	2022-05-06, mja	SFP+ content extended
Ed.2	2022-05-16, mja	Shield connection added (photo)
Ed.3	2022-06-30, mja	Block diagram removed and FCC Statements added

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1	Introduction	
-	The AL900-0100 is a self managed network switch. It has 8 Ports (port 1- port 8) with AVB capability). No user configuration is needed.	
-	1000BASE-T Ethernet switch, 9 + 1 ports.	
-	PoE+ support up to 120W in total (ports 5 – port 8). 4x PoE+ (802.3at PoE+). Up to 25W / port.	
-	SFP rear connector (25000BASE-X) for cascading two switches (over SGMII).	
-	Nominal 48VDC / 54 VDC power input	

2 I/O ports and connectors

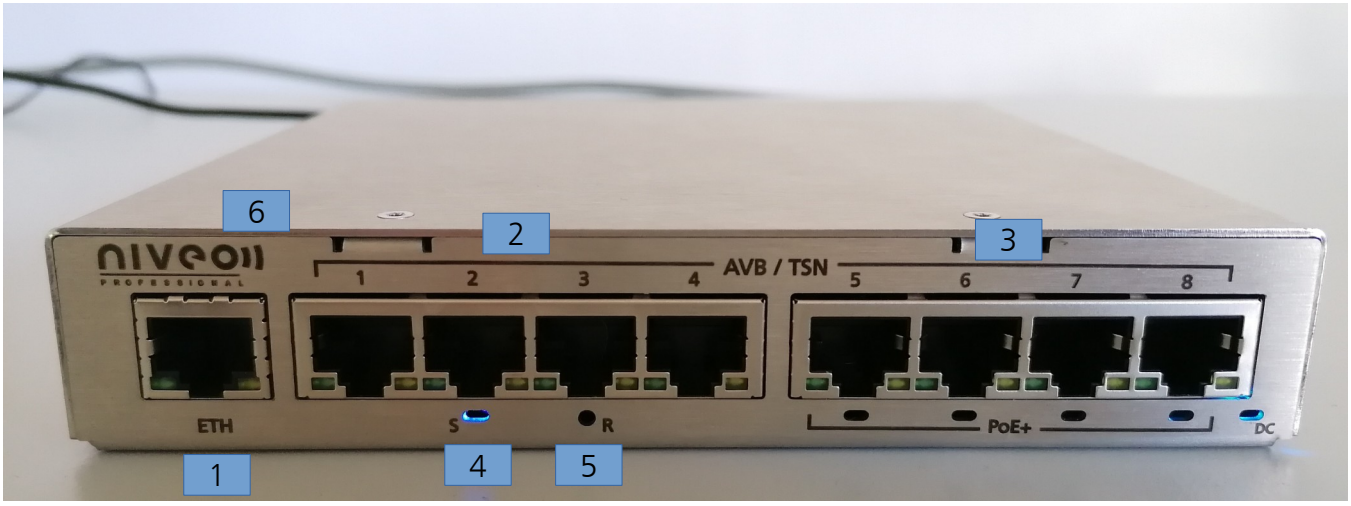

photo: front connections (photo similar)

1: Ethernet VLAN Port (not AVB applicable)

2: Port 1 – Port 4 are 1000 BASE-X Ethernet ports which are AVB applicable

3: Port 5 – Port 8 are 1000 BASE-X Ethernet ports which are AVB applicable.
4x PoE+ (802.3at PoE+). Up to 25W / port. 120W in total.

4: System LED. Normal State at booting is on.

5: Reset function. A reset will reboot the system. Power will be on.

6: DC LED: This LED is a tricolor LED. Normal state is :
- Green on
- Blue on

This signals that the power is OK.

2 I/O ports and connectors

photo: back connections (photo similar)

1: Power input connector. DC Input range 48 VDC, 54 VDC, 3A max.

2: Managment Ethernet Port without AVB applicable. This 1000 BASE-X Ethernet port is for service only. Not usable for customer.

3: SFP 2500 BASE-X port for cascading two AL900-0100 switches. It is a SGMII connection and not hipot resistant!

*: Shield – connection to PE

3 Prerequisites

- AL900-0100 switch
- AVB talker and AVB sender, if AVB is needed
- PoE+ powered device, if needed
- 48 / 54 VDC power supply
- RJ45 ethernet cables to connect network interfaces with the AL900-0100 switch.

4	Starting		

1) Powering up:

Plug the 48/54VDC power adapter to the DC Jack. Make sure that the power adapter is not turned on.

2) Ethernet:

Connect your network devices (PCs or other devices) to the front ethernet ports.

The front ethernet ports 1-8 must be connected to a DHCP server!

Port 0 belongs to VLAN ID 1.

3) AVB:

By using the AVB functionality, connect you AVB talker or sender to the front ethernet ports 1-8.

4) POE+:

By using powered POE+ devices, connect your PD to the ports 5-8.

5) Interconnection between 2 AL900-0100 switches:

For an interconnection between two AL900-0100 switches, connect a SFP+ cable to the 2.5G Link back port. The port is not hotplug compatible. It is neccesary to finish the interconnection before powering on the boards!

Notice: The 2.5G Link backport is not hipot resistant, because it is a SGMII connection between to switch ICs !

5	FCC Satements		

§ 15.21 Information to user.
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

§ 15.105 Information to the User
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.