W&T
55614 4 Port
Gigabit Ethernet
Switch Industry

W and T 55614 4 Port Gigabit Ethernet Switch Industry Instructions

Contents

W&T

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Legal notices

Warning notice system
This manual contains notices that must be observed for your safety as well as to prevent damage to equipment. The notices are emphasized using a warning sign. Depending on the hazard level the warning notices are shown in decreasing severity as follows.

DANGER
Indicates a hazard that results in death or severe injury if no appropriate precautions are taken.

WARNING
Indicates a hazard that results in death or severe injury if no appropriate pre-preventives are taken.

CAUTION
Indicates a hazard that can result in slight injury if no appropriate preventive actions are taken.

NOTE

- Indicates a hazard that results in material damage if no appropriate preventatives are taken.
- If more than one hazard level pertains, the highest level of warning is always used. If the warning sign is used in a warning notice to warn of personal injury, the same warning notice may have an additional warning of materials damage appended.

Qualified personnel

- The product described in this manual may be installed and placed in operation only by personnel who are qualified for the respective task.

- The documentation associated with the respective task must be followed, especially and warning notices contained therein.
  Qualified personnel are defined as those who are qualified by their training and experience to recognize risks when handling the described products and to avoid possible hazards.

Disposal
Electronic equipment may not be disposed of with normal waste but rather must be brought to a proper electrical scrap processing facility.

Symbols on the product

Symbol	Explanation
	CE mark The product conforms to the requirements of the relevant EU Directives.
	WEEE mark The product may not be disposed of with normal waste, but rather by local disposal r egulations for electrical scrap.

Safety notices

General notices
This manual is intended for the installer of the Gigabit Switch described in the manual and must be read and understood before starting work. The devices are to be installed and put in operation only by qualified personnel.
Intended use

DANGER
The Ethernet Gigabit switch made by Wiesemann & Theis is an infrastructure component for Ethernet networks for connecting Ethernet end devices and other Ether-net infrastructure components. Non-intended use is any other use or any modification to the described devices.

Electrical safety

WARNING

- Before beginning any kind of work on the Switch you must completely disconnect it from power. Be sure that the device cannot be inadvertently turned on again!
- The Gigabit Switch may be used only in enclosed and dry rooms.
- The device should not be subjected to high ambient temperatures or direct sunlight, and it should be kept away from heat sources. Please observe the limits concerning maximum ambient temperature.
- Ventilation openings must be clear of any obstacles. A distance of 10-15 cm between the Gigabit Switch and nearby heat sources must be maintained.
- Input voltage and output currents must not exceed the rated values in the specification.

- When installing, be sure that no stray wires stick out through the ventilation slit of the Web-IO into the housing. Ensure that no individual wires stand off from leads, that the lead is fully contained in the clamp, and that the screws are tightly fastened. Fully tighten screws on unused terminals. The power supply used for the Gigabit Switch must ensure safe isolation of the low-voltage side from the supply mains according to EN62368-1 and must have an “LPS“ designation.

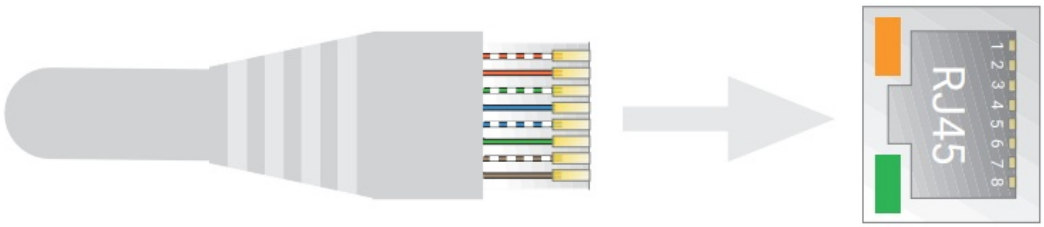
EMC

NOTE

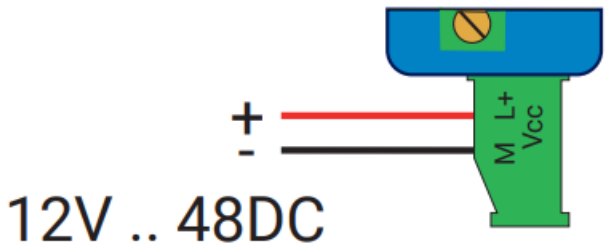
- Only shielded network cables may be used for connecting the Gigabit Switch to the network.
- In this case, WebWeb I sets the noise immunity limits for industrial applications and the stricter emissions limits for households and small businesses. Therefore there are no EMC-relatedlimitations concerningo the usability of the devices in such environments.
- The complete Declarations of Conformity for the devices described in the manual can be found on the corresponding Internet page at the W&T homepage: **http://www.wut.de**.

Quick Startup

Network connection



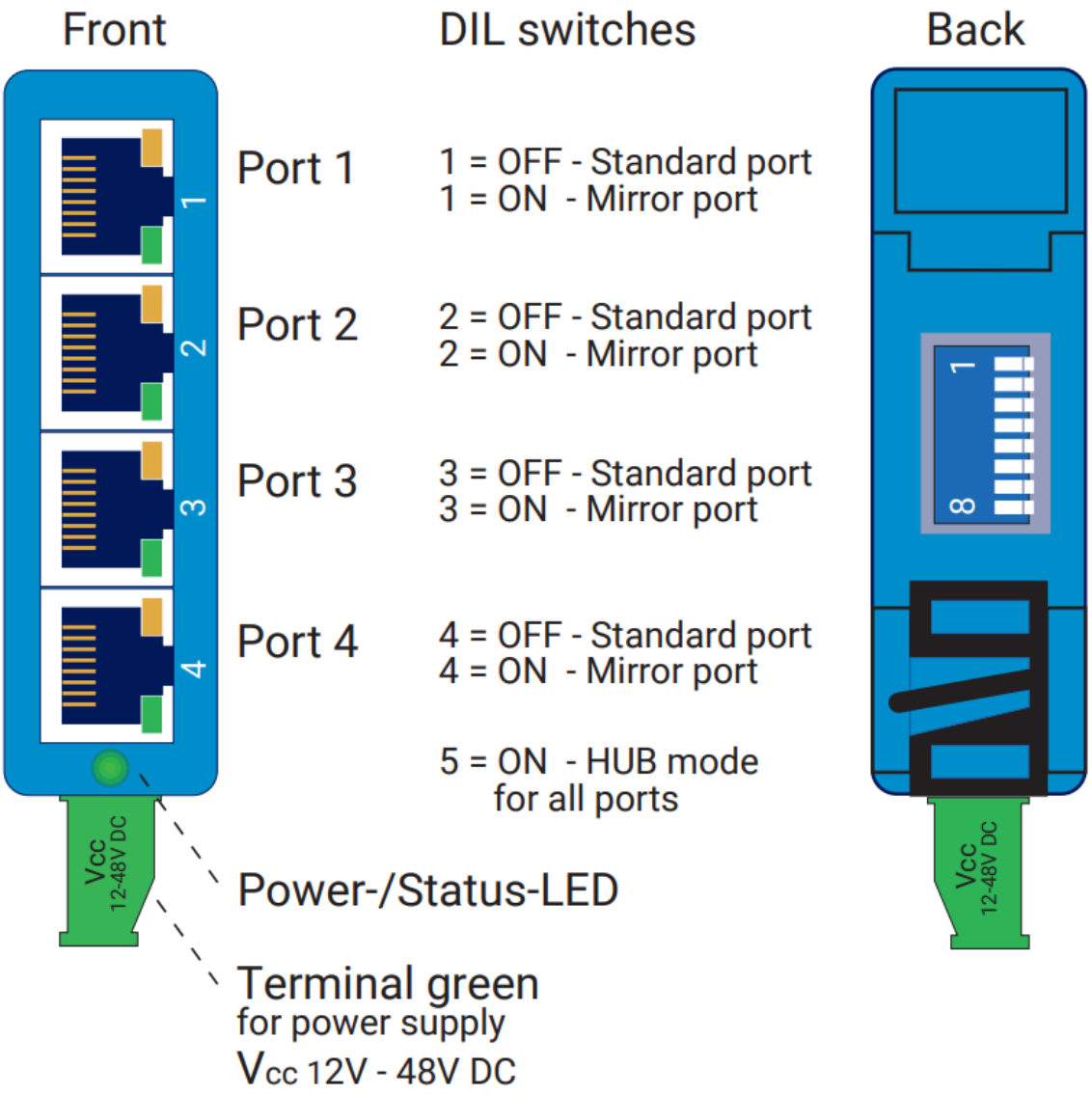
Supply voltage



The switch is ready for standard operation after a few seconds.

Product introduction

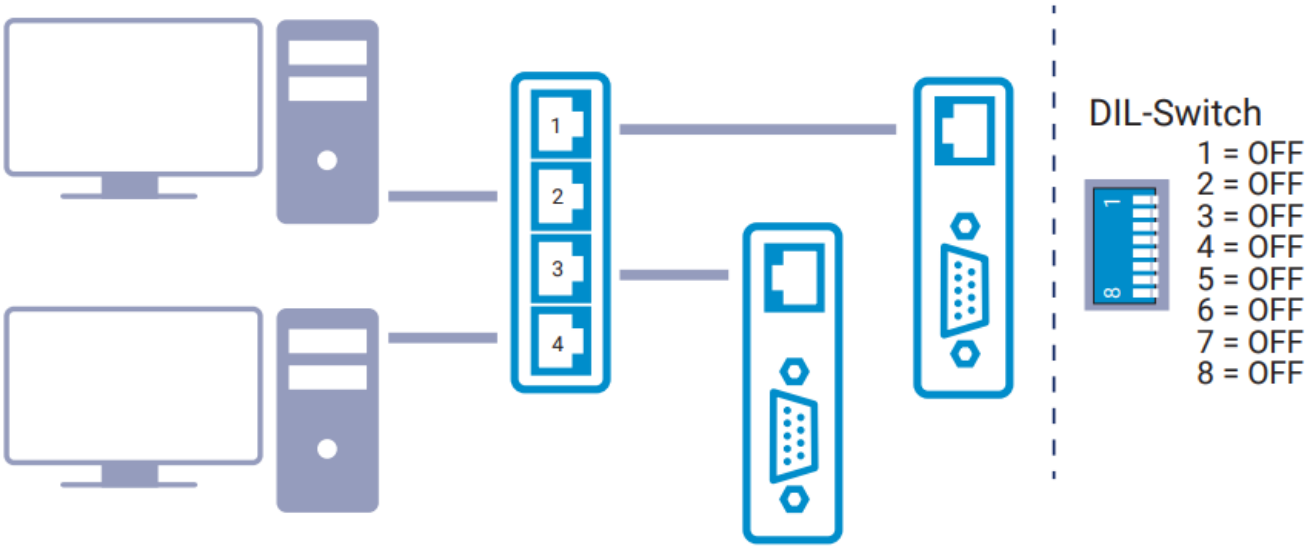
Hardware
The W&T Gigabit Switch has four equal RJ45 Ethernet ports for connecting Ethernet end devices and is supplied with a voltage between 12V and 48V DC.



- **Network interfaces**: 4x RJ45 10/100/1000BaseT,
- **Power supply**: 1x screw terminal 12 .. 48V
- **Indicators:** 1x power/status LED
- **Operating elements**: DIL switch eightfold on the rear side (behind black rubber cap)

Operating modes

Standard Gigabit-Switch
When delivered, the switch works as a normal switch with four autosensing ports with equal rights.



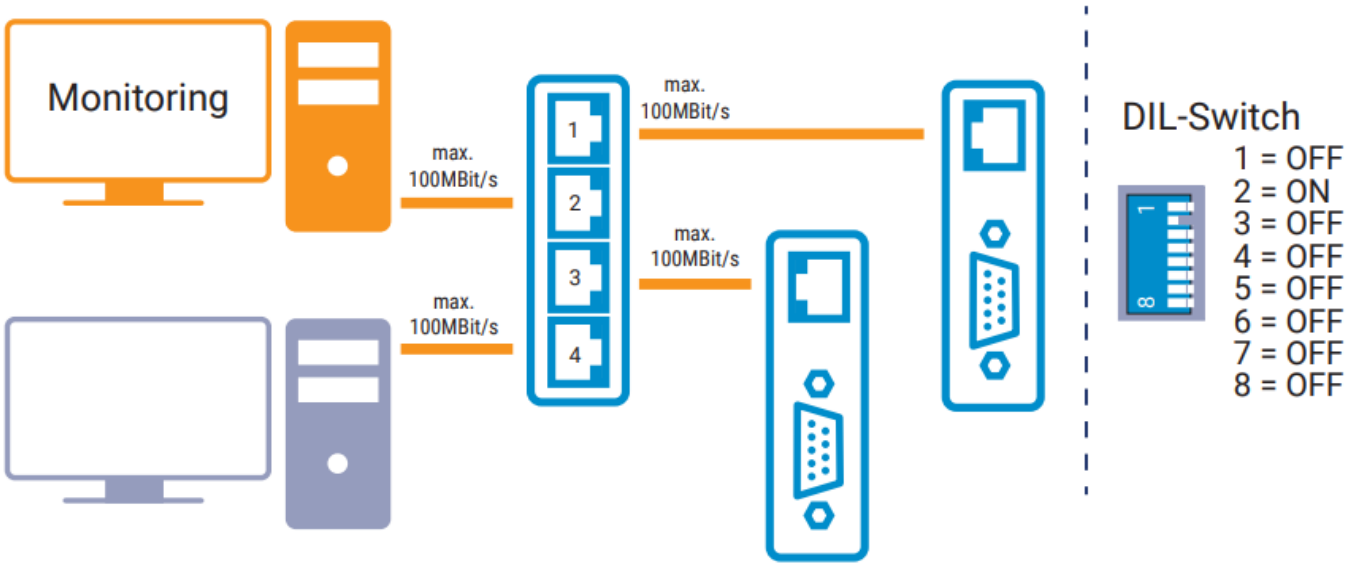
Each port automatically detects the transmission rate and whether data transmission should be in full or half duplex mode.

The switch allows three transmission rates:

- 1000 MBit/s – signaled by green LED in the network socket lights up
- 100 MBit/s – signaled by yellow LED in the network socket lights up
- 10 MBit/s – signaled by both LEDs in the network socket lights up

In the standard operating mode, the switch filters the data traffic. Only the data packets that are explicitly addressed to the end device connected are sent to the individual ports. The only exceptions are broadcast packets.

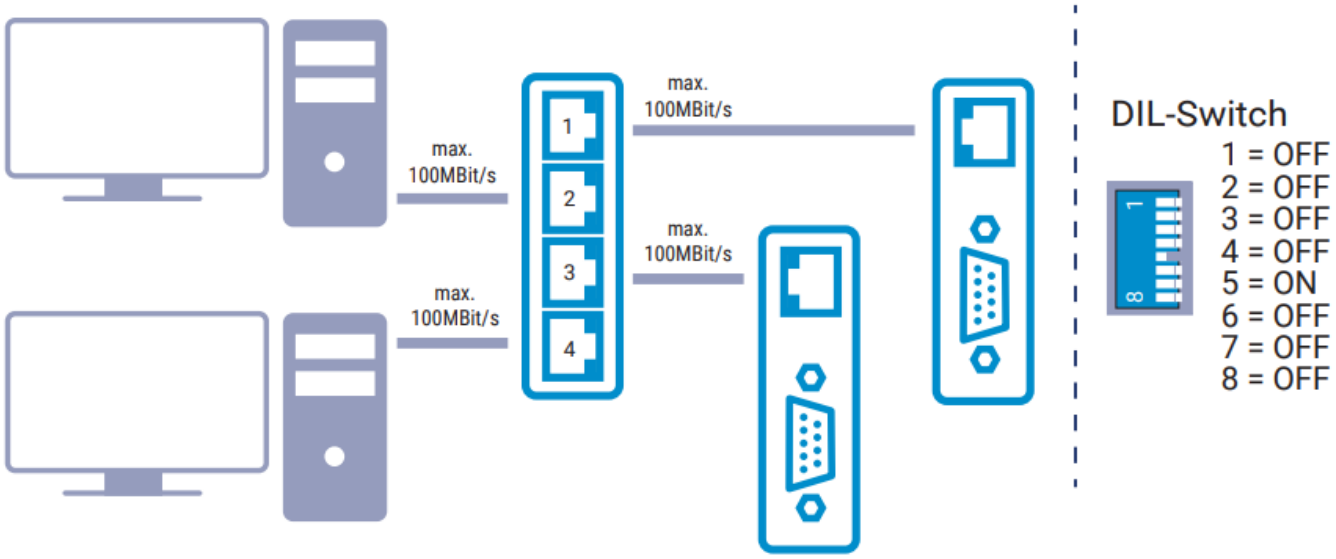
Monitoring
The W&T Switch allows any port to be working as a monitor or mirror port.



- In the Monitoring mode, the complete data traffic handled by the switch is sent to the selected port. In this way, the data traffic of other network nodes can be read via network capture.

- The selected port is determined via the DIL switch block on the back of the switch by setting the corresponding switch to ON.
- To operate the DIL switch, the rubber cap must first be removed. Only one of the four ports may be defined as a monitor port. A misconfiguration of the DIL switch block is signaled by the lashing of the power LED.
- To ensure that a change in the switch positions is reliably detected, the switch should be restarted by briefly interrupting the power supply.
- When monitoring is activated, the internal data transfer rate is reduced to max. 100MBit/s, even if the LEDs on the network sockets signal a higher speed.

HUB Mode
In HUB mode, all traffic handled by the switch is sent to all four ports.



- The HUB mode is determined via the DIL switch block on the back of the switch by setting switch five to ON.
- To operate the DIL switch, the rubber cap must first be removed.
- No other switch should be in the ON position. A misconfiguration of the Dil switch block is signaled by the flashing of the Power LED.
- To ensure that a change in the switch positions is reliably detected, the switch should be restarted by briefly interrupting the power supply.
- In HUB mode, the internal data transfer rate is reduced to max. 100MBit/s, even if the LEDs on the network sockets signal a higher speed.

Technical data

Gigabit-Switch #55614

Network:	4 x 10/100/1000 BaseT autosensing
Power supply:	12-48V DC (approx. 150mA@24V) Idle @24V – 52mA @48V – 33mA 1 port active @24V – 78mA @48V – 41mA 2 port active @24V – 100mA @48V – 48mA 3 protective @24V – 125mA @48V – 60mA 4 proactive @24V – 145mA @48V – 76mA
Connections:	4 x RJ45 for network 1 x Screw terminal pluggable
Displays:	1 x Power LED 8 x LED for network speed
Galvanic isolation:	Power supply – network: min. 1000V Network – network: min. 2000V
Operating temperature:	0°C .. 60°C
Storage temperature:	-25°C .. 70°C
Permissible humidity:	5..95% relative humidity (non-condensing)
Housing:	Plastic housing for top hat rail mounting 105x22x75mm (lxwxh)
Protection class:	IP20
Weight:	ca. 150 g

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Documents / Resources

	**W and T 55614 4 Port Gigabit Ethernet Switch Industry** [pdf] Instructions 55614 4 Port Gigabit Ethernet Switch Industry, 55614, 4 Port Gigabit Ethernet Switch Industry, Gigabit Ethernet Switch Industry, Ethernet Switch Industry, Switch Industry

References

- **W&T Wiesemann & Theis GmbH - WuT connects**
- **User Manual**