INDICATION LEDS

LED	Function	
PWR	**On**	Main Power is active
	Off	Main Power is inactive
PWR1	**On**	Backup Power is active
	Off	Backup Power is inactive
SYS	**ON**	Works properly
	Blinks	Starting up or possible system failure
Gigabit port (1-8)	**Green Light**	Indicates the port is successfully connected to the network at 1000Mbps
	Orange Light	Indicates that the switch is actively sending or receiving data over the port
	Off	Indicates that no device is connected to the port
	Blue Light	PoE device connected
SFP port (9-10)	**Top Light**	Indicates the port is successfully connected via optical fibre
	Bottom Light	Indicates link/active

Disclaimer: This product is designed to aid navigation and should be used to augment normal navigational procedures and practices. It is the user's responsibility to use this product prudently. Neither Quark-elec, nor their distributors or dealers accept responsibility or liability either to the product user or their estate for any accident, loss, injury or damage whatsoever arising out of the use or of liability to use this product.

V1.0(04/23)

QUARK-ELEC

SET-UP GUIDE

R043 MANAGED MARINE ETHERNET SWITCH

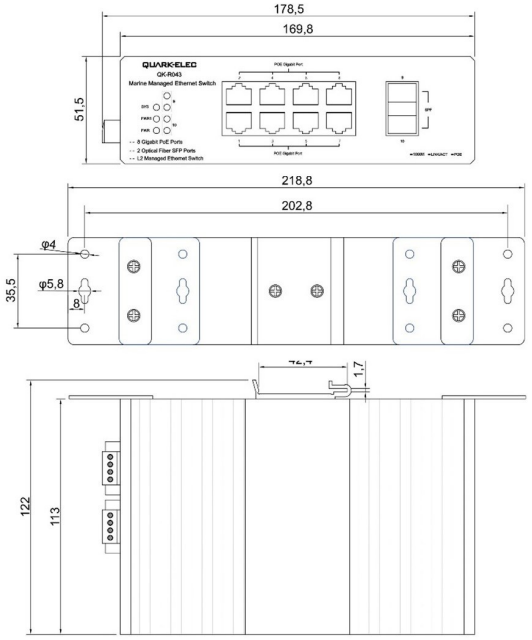
- 8X GIGABIT POWER OVER ETHERNET (POE) PORTS

- 2X SFP PORTS FOR OPTICAL FIBRE CONNECTION

- SUPPORTS BOTH IPV4 AND IPV6 TRAFFIC

- READY TO SUPPORT ONENET*.

- COMPATIBLE WITH MOST PLUG & PLAY IP CAMERAS, IP SENSORS, VOIP PHONES



All products are CE, RoHS certified
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Please recycle your packaging

This is an overview only. Familiarize yourself with the manual and the manuals of any connecting devices before installation. It is always recommended that electronic equipment be installed by an experienced installer.

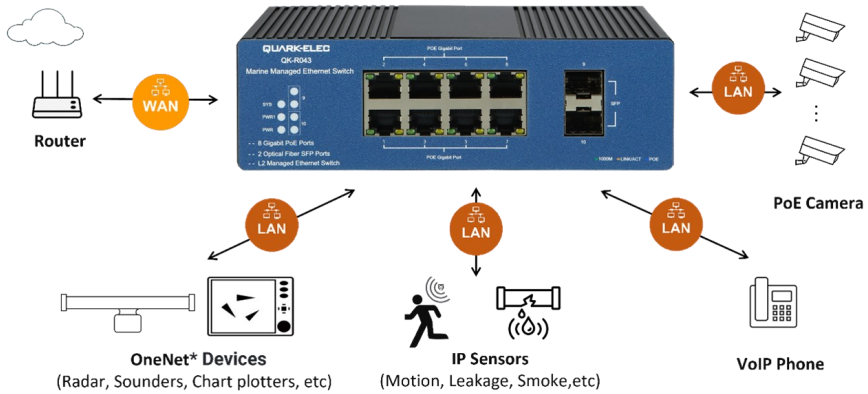
BEFORE YOU START:

The R043's default settings have been carefully selected to work well in most situations/ installations, commonly found on pleasure boats. Most PoE cameras, VoIP phones or wireless routers can be plugged in directly and should work straightforward. We strongly suggest you not change any settings except the default gateway IP address.

The gateway IP address in the R043 is set to the IP address of the next-hop device that can forward data to the other LANs or remote networks, such as an 4G router (e.g. Quark-elec R041) or a remote server.
The default gateway IP address of the R043 can be checked and modified via its built-in web interface (GUI). To access the GUI, a computer should be connected to the R043 through a network cable to one of the Ethernet ports (1 to 8). The computer must be assigned an IP address that's on the same subnet as the managed switch with an identical subnet mask.

The switch's default IP address is: **192.168.0.1** and the default subnet mask is: **255.255.255.0**
For example: If the switch keeps the default IP address which is 192.168.0.1, then
the other device's IP address that is used to access the GUI has to be set to 192.168.0.x (where x is a number between 1 and 254, except 100). As the switch supports DHCP it's likely that your computer will automatically be assigned an IP address in the same range, unless your device has a manually assigned IP address.

For laptops and tablets that don't have an Ethernet port (e.g., no RJ45 port), please connect the switch to your wireless router first, by using a network cable and then the switch's GUI can be accessed on these devices through the wireless router's WiFi network.
* More details about the configuration can be found from the R043's user manual:
https://www.quark-elec.com/downloads/manuals/



MOUNTING

The R043 was designed with industrial level requirements in mind and is aimed at the commercial, leisure, fishing boat and vessel monitoring markets.
It is not waterproof, so it needs to be mounted in a dry place such as behind the instrument panel on a flat surface or a rack.

CONNECTIONS

The R043 managed marine Ethernet switch has the following options for inputs, outputs.

- Power supply terminals
- 8x Gigabit POE RJ45 ports
- 2x Optical fibre SFP ports

1. Power supply terminals

The R043 needs to be powered from a stable 12V to 35V DC power supply. Power(+) and GND(-) terminals are clearly marked on the side of the terminal block. The R043 has been designed so that it can be connected to two independent power supplies, PWR and PWR1, if required, to minimize the chance of failure.
The R043 is equipped with reverse polarity protection to protect the device in case of improper installation.
Next to PWR1, there is a grounding screw. It's always recommended you connect a ground cable to this and link the other end of the cable to the ground on the boat.

2. Gigabit PoE RJ45 ports

Power over Ethernet (PoE) support means that the operating power is applied from a power source over the LAN infrastructure, to power devices, which are connected to ports.
The R043 switch provides eight PoE ports which can be used to easily build a powered and centrally controlled camera system, IP monitor system, or Internet-on-board system on vessels. Cameras or IP sensors (e.g., temperature, humidity, leak, motion sensors can be easily installed for surveillance or monitoring purposes. Without a power socket limitation, the R043 switch makes the installation of surveillance and sensing equipment easier and more efficient.
All these RJ-45 type PoE ports are auto-negotiating. The ports can detect and adjust to the optimum Ethernet speed (10/100/1000 Mbps) and duplex mode (full duplex or half duplex) of the connected device.

3. Optical fibre SFP ports

The R043 features two optical fibre SFP slots, providing a high-speed and reliable connection option between devices through fibre optic cables. They are a great option for networking due to no electromagnetic interference, which can cause data transmission errors and affect network performance.