Network requirements for swissTRAFFIC AI devices - Ports

General guide to ports used by swissTRAFFIC AI, swissTRAFFIC AI supported devices and general use ports such as camera streams.

If something does not work, it may be due to a firewall blocking a particular communication channel and / or poor network configuration. Here you can find all ports and communication protocols across all swissTRAFFIC AI devices. For better clarity, the list is divided into three sections, i.e.:

- **swissTRAFFIC AI framework specific ports** - contains ports related to the swissTRAFFIC AI framework

- **swissTRAFFIC AI device service ports** - contains ports used for servicing the swissTRAFFIC AI devices

- **General purpose ports** - common ports needed for camera streams, NTP, or when the device is remotely configured or installed

- **swissTRAFFIC AI remote installation** - necessary ports if remote installation is required

swissTRAFFIC AI framework specific ports:

These ports and protocols are critical to making the swissTRAFFIC AI framework fully functional. Blocking some ports may cause some features/functions to stop working.

Description	Port and protocol	Input/Output
swissTRAFFIC AI REST API & communication between swissTRAFFIC AI and swissTRAFFIC AI Block	8088/TCP	Input
Communication between swissTRAFFIC AI and swissTRAFFIC AI Node	5556/TCP	Input
Necessary for the update of swissTRAFFIC Light AI and swissTRAFFIC Embedded AI units via swissTRAFFIC AI	8089	Input
swissTRAFFIC AI video server	8090/TCP	Input
swissTRAFFIC AI UDP server	55570/UDP (configurable)	Input
swissTRAFFIC AI webhook outputs	?/TCP (port is defined by receiving part)	Output
swissTRAFFIC AI mDNS	5353/UDP	Input

Note that it is possible to connect to multiple swissTRAFFIC AI devices with a single IP using port forwarding. It is necessary to specify two ports when accessing the devices this way, the swissTRAFFIC AI Block - 8088 (for transfer of traffic data) and swissTRAFFIC AI Node - 5556 (for image data transfer). When logging into the device in swissTRAFFIC AI Insights, type your IP address and ports in the following format [IP]:[PORT BLOCK]:[PORT NODE] as shown in the example below.

swissTRAFFIC AI device service ports:

These ports are required for services related to the following products: T.Enterprise, T.XRoads, and T.Embedded systems. Get datasheets and manuals for the products here.

Description	Port and protocol	Input/Output
Web admin console	8000/TCP	Input
SWISSTRAFFIC Group service VPN - 172.105.65.31	31228/UDP	Output

General-purpose ports:

The RTSP for receiving video feed from the camera is critical for running swissTRAFFIC AI. The rest depends on the specific cases.

Description	Port and protocol	Input/Output
Web data download	443 and 80/TCP	Output
DNS service	53/UDP	Output
SMTP service	495, 993 and others/TCP	Output
NTP time synchronization	123/UDP	Output
RTSP camera stream	port depends on camera configuration/TCP and UDP	Output

swissTRAFFIC AI remote installation:

Min. network settings for remote installation in the case of TrafficEnterprise.

Description	Port and protocol	Input/Output
Web data download	443 and 80/TCP	Output
DNS service	53/UDP	Output
RTSP camera stream ***	port depends on camera configuration/TCP and UDP	Output
swissTRAFFIC AI REST API & communication between swissTRAFFIC AI and swissTRAFFIC AI Block ***	8088/TCP	Input
Communication between swissTRAFFIC AI and swissTRAFFIC AI Node ***	5556/TCP	Input
SWISSTRAFFIC Group service VPN - 172.105.65.31	31228/UDP	Output

*** These ports are not required for installation but are recommended for basic testing after installation is complete.

Port taxonomy:

output = swissTRAFFIC AI device creates a connection to the target port

input = swissTRAFFIC AI device listens for a connection on this particular port