

# TCP/IP-TCP and TCP/IP-TCP Redundant

## Configuration of communication lines of TCP/IP-TCP and TCP/IP-TCP Redundant categories.

Lines of categories **TCP/IP-TCP** and **TCP/IP-TCP Redundant** were designed for the needs of communication protocols that are built directly on TCP/IP. **TCP/IP-TCP Redundant** enables the implementation of redundant communication (redundant network lines, redundant network interfaces) and configuration of two or more IP addresses of a communication partner and create two parallel TCP connections.

The following protocols are supported at the present time:

### Line TCP/IP-TCP

- [Allen-Bradley CSP/PCC](#)
- [Datalogger ESC8816](#)
- [DLMS/COSEM](#)
- [DNP3](#)
- [Ethernet/IP](#)
- [Generic User Protocol](#)
- [HART](#)
- [IEC 60870-5-104](#)
- [IEC 60870-5-104 Server](#)
- [IEC 60870-5-104 Sinaut](#)
- [IEC 60870-6 ICCP/TASE.2](#)
- [IEC 61850](#)
- [IoT over LoRaWAN/Sigfox](#)
- [KMZ Protocol](#)
- [MODBUS Client](#)
- [MODBUS Server](#)
- [MQTT Client \(Message Queue Telemetry Transport\)](#)
- [Orange GDEP](#)
- [SAE RTU](#)
- [Siemens SAPHIR](#)
- [Siemens SIMATIC S7 ISO on TCP](#)
- [Telegyr 809 Server](#)
- [Teltonika Codec14](#)

### Line TCP/IP-TCP Redundant

- [DLMS/COSEM](#)
- [Generic User Protocol](#)
- [HART](#)
- [IEC 60870-5-104 Sinaut](#)
- [IEC 60870-5-104](#)
- [IEC 60870-6 ICCP/TASE.2](#)
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- [Siemens SIMATIC S7 ISO on TCP](#)
- [Siemens SAPHIR](#)

### TCP/IP-TCP line configuration

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L.L1 - ??? [Invalid, Unknown] - SELF.KOM

General properties Groups Line parameters TCP - parameters Protocol parameters

Server

Host : ALL Port : 2404

Line number : 0

☐ close dialog window after save

Save Undo Use Sample Cancel

It is necessary to hold SHIFT key for save with comment.

## Server - Host

IP address or network name of a computer. If the name is configured (and not an IP address in the format X.X.X.X), it will be converted into an IP address using the standard name resolution mechanism provided by OS (hosts, DNS, WINS ..).

If a [server protocol](#) is configured, the IP address for the KOM process to listen should be configured, i.e. IP address of one of the computer network interfaces which KOM process runs on. Example: *127.0.0.1* or *localhost* (local interface), *192.16.0.1*.

**Note:** It is possible to use a symbolic address *ALL* - in this case, the KOM process listens on a chosen TCP port on all network interfaces which are available.

If the configured protocol is not a [server protocol](#), the IP address of the communication partner to which the KOM process connects should be configured.

**Note:** If the configured protocol is not a [server protocol](#), for selected protocols, multiple IP addresses or names can be configured (separated by commas or semicolons). The KOM process will cyclically try all configured IP addresses/names when connecting to a communication partner.

## Server - Port

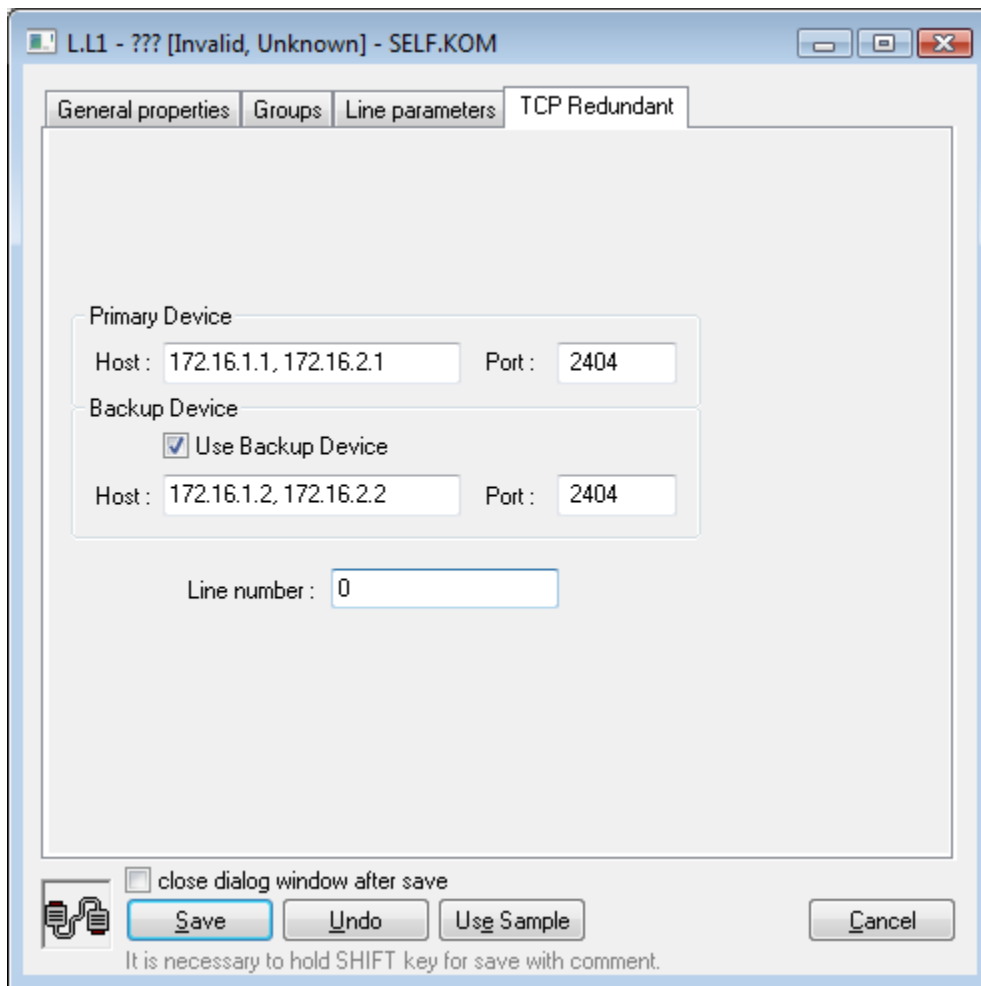
If a [server protocol](#) is configured, enter the TCP port number on which the KOM process should listen. Otherwise, enter the TCP port number of the communication partner to which the KOM process should connect.

## Line number

It is used for the configuration of a specific parameter in selected protocols, in other protocols, it is not used and it can be set to any numeric value (e.g. 0).

## TCP/IP-TCP Redundant line configuration

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L.L1 - ??? [Invalid, Unknown] - SELF.KOM

General properties Groups Line parameters TCP Redundant

Primary Device

Host : 172.16.1.1, 172.16.2.1 Port : 2404

Backup Device

☒ Use Backup Device

Host : 172.16.1.2, 172.16.2.2 Port : 2404

Line number : 0

☐ close dialog window after save

Save Undo Use Sample Cancel

It is necessary to hold SHIFT key for save with comment.

## Primary Device - Host

Primary IP address of the communication partner to which the KOM process connects. If the name is configured (and not the IP address in the format X.X.X.X), it will be converted into an IP address using a standard name resolution mechanism provided by OS (hosts, DNS, WINS ..).

## Primary Device - Port

A number of the primary TCP port of the communication partner to which the KOM process connects.

## Use Backup Device

If this option is not selected, the KOM process does not connect to the backup IP address and the line works like a TCP/IP-TCP line, i.e. without redundancy.

## Backup Device - Host

The secondary IP address of the communication partner to which the KOM process connects. If the name is configured (and not an IP address X.X.X.X), it will be converted into an IP address using the standard name resolution mechanism provided by OS (hosts, DNS, WINS ..).

**Note:** implementation of redundancy is protocol-dependent. For some of the protocols (e.g. [IEC 870-5-104](#)) a parallel connection to the backup device is created. For some protocols (e.g. [Modbus Client](#)), the KOM process creates a single connection, using all IP addresses/names configured as Primary /Backup Devices.

## Backup Device - Port

The number of a backup TCP port of the communication partner to which the KOM process connects.

## Note about entering the Host parameter

Parameter Host can contain several (up to 8) IP addresses or network names of computers separated by comma or semicolon, e.g. `172.16.0.1; 172.16.0.2` (spaces are permitted before and after the IP address due to readability). See the documentation of a used communication protocol to find out whether it can utilize more than one IP address. For example the protocol [IEC 870-5-104](#): if several IP addresses are configured (on TCP/IP-TCP or TCP/IP-TCP Redundant lines), the connection is initially established to the first IP address. If the connection breaks, the KOM process tries to reconnect to the second IP address, then to the third, etc.. After all configured IP addresses are tried, it uses again the first IP address. This configuration can be used if several communication partners exist and they either provide the same valid data or only the one which is active, i.e. it communicates (and all others refuse the connections). Other protocols (e.g. [MODBUS Client](#)) currently use only the first configured IP address.

## Note about the redundancy of network communication

Currently, only two protocols supporting the TCP/IP-TCP redundant line are implemented. Protocol [IEC 870-5-104 Sinaut](#) is a specific implementation of the protocol IEC104 designed for redundant communication with the Sinaut Spectrum system. Much more frequently you can meet the protocol [IEC 870-5-104](#), which has many options related to communication redundancy implemented.



### Related pages:

[Communication lines](#)