WEINZIERL

KNX IP Interface 730

Operating and installation manual

Application

The KNX IP Interface 730 can be used as an interface for accessing the KNX via IP, replacing an RS232 or USB interface.
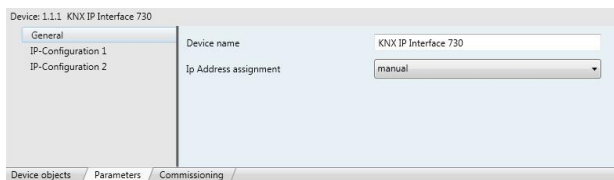The device supports 5 simultaneous KNXnet/IP tunneling connections.
There are two ways to assign an IP-address to the KNX IP Interface 730: get the IP-address from a DHCP-server or configure it with the ETS (as ETS parameter).
It requires an external 12 V to 24 V power supply (AC or DC) or can alternatively be powered via Power-over-Ethernet (IEEE 802.3af).

ETS database

The following parameters can be set on the ETS:

General:

Device name:
The KNX IP Interface can be assigned a name of your choice. The device name should be descriptive (e.g. Line TF). It is used to search for and recognize a device.
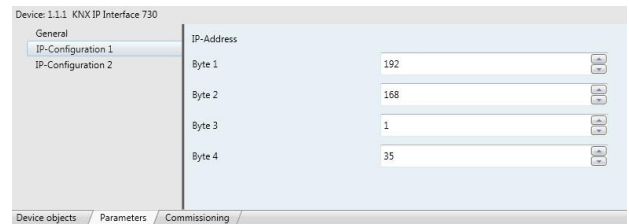
IP address assignment:
Automatic
(DHCP):   The IP address is automatically assigned on the DHCP, i.e. additional settings are not required. To be able to use this function, there must be a DHCP server in the LAN (many DSL routers have an integrated DHCP server).
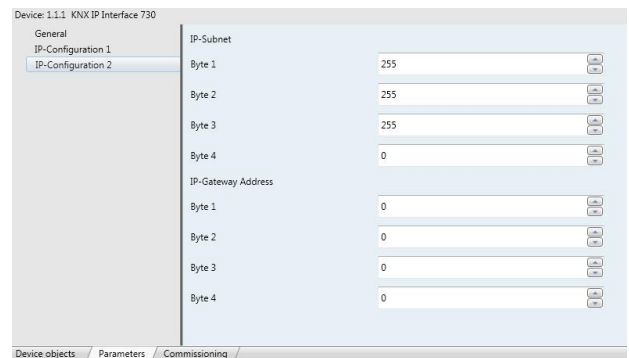*Manual:*   In this case, the IP address, the subnet and the gateway IP address must be entered manually.

IP configuration:

IP address:
This is the IP address of the KNX IP Interface 730.

IP subnet:
Enter the subnet mask here. The device uses the values entered in this mask to determine whether there is a communications partner in the local network. If there is no partner in the local network, the device will not send the telegrams directly to the partner but to the gateway that routes the telegram.

IP gateway address:
Enter the IP address of the gateway here.
Note: If the KNX IP Interface will only used in the local LAN, the entry of 0.0.0.0 can remain unchanged.

Example of assigning IP addresses:
A PC is to be used to access the KNX IP Interface 730.
IP address of the PC: 192.168.1.30
Subnet of the PC: 255.255.255.0
The KNX IP Interface 730 is located in the same local LAN, i.e. it uses the same subnet. The subnet constrains the IP addresses that can be assigned. In this example, the IP address of the IP interface must be 192.168.1.xx, where xx can be a number from 1 to 254 (with the exception of 30, which is already in use). It must be ensured that no numbers are assigned twice.
IP address of the IP interface: 192.168.1.31
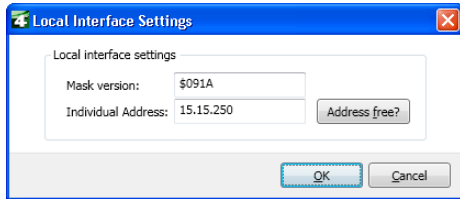Subnet of the IP interface: 255.255.255.0

ETS Connection Manager

The KNX IP Interface 730 can only act as an interface to KNX when the IP-configuration is valid.

The following configuration steps are required:

Select the button 'Settings' on the tab 'Communication' in the main window of ETS4. All available connections are listed under 'Discovered connections'. Select the desired connection.

The KNX IP Interface 730 supports up to 5 simultaneous tunneling connections. Each connection uses its own physical address. The address of the first tunneling connection can be changed within the 'Local Interface Settings'.

Physical addresses of the additional tunneling connections can be assigned directly on the device.
This is done by pressing the learn key on the device (3) longer than one second. After that, the Learn-LED will start blinking, which indicates that the assignment of the additional addresses was successful.

The additional addresses are assigned as follows:

Tunneling connection 2 receives the next higher address than tunneling connection 1, tunneling connection 3 the next higher address than tunneling connection 2 etc..
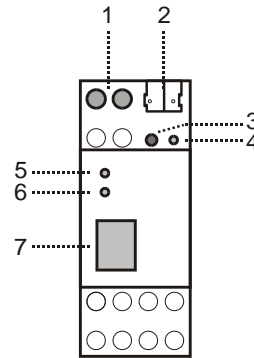
For example:

Device address:	1.1.255 (address within ETS topology)
Connection 1:	1.1.250 (address within local settings)
Connection 2:	1.1.251 (assigned by learn key)
Connection 3:	1.1.252 (assigned by learn key)
Connection 4:	1.1.253 (assigned by learn key)
Connection 5:	1.1.254 (assigned by learn key)

All addresses have to be unique and valid within the sub line of the interface. Note: be careful not to assign the same address as the device address for a connection. The device address can be changed within the topology view of the ETS software.

For new devices (i.e. in the factory settings state), only the additional individual address of the first connection is active with the address 15.15.250. To support multiple concurrent connections additional address assignment is required.

Installation and connection

The KNX IP Interface 730 is designed for installation in a rack with a depth of 2 units. It contains the following display and control elements:

1: Connector for external power supply (12 V to 24 V AC/DC)
2: Connector for KNX with a bus terminal
3: Learn key
4: Learn LED (red)
5: LED (green):
   - Lights up to indicate bus voltage on KNX
   - Flashes to indicate telegram traffic
6: LED (green):
   - Lights up to indicate an Ethernet connection
   - Flashes to indicate telegram traffic
7: RJ 45 socket for connecting an Ethernet patch cable

An external power supply only needs to be connected if the switch in use does not support Power-over-Ethernet.

Factory reset

Factory default configuration:

Physical device address: **15.15.255**
Number of configured tunneling connections: **1**
Physical address of tunneling connection 1: **15.15.250**
IP address allocation: **DHCP**

It is possible to reset the device to its factory settings.

Resetting to the factory state:

- Disconnect the power supply to the device (external power supply, PoE)
- Press and hold down the learn key (3).
- Reconnect the power to the device.
- Hold down the learn key (3) for at least 6 seconds.
- A blinking of all LED's (4, 5, 6) indicates the successful restore of the factory configuration