CR-EXPAND1 Q-SYS Plugin Guide

For Q-SYS Designer · Plugin version 1.0.5

The KanexPro CR-EXPAND1 plugin lets a Q-SYS system control the CR-EXPAND1 over the network. It talks to the unit's own control port (TCP 8000): no other KanexPro software and no RS-232 cable are needed. Every control has a pin, so it can be wired to UCI buttons, logic and scripts like any Q-SYS control, and the plugin reads the unit back so changes made on its front panel, remote or web page show in Q-SYS.

> **Before you start —** the Q-SYS Core must reach the CR-EXPAND1 on TCP port 8000. Give the unit a fixed IP address (or a DHCP reservation).

TABLE OF CONTENTS

1. What the plugin does
2. Before you start
3. Install the plugin
4. Properties
5. The plugin in Q-SYS Designer
6. Controls
7. Status
8. Troubleshooting

1. WHAT THE PLUGIN DOES

It controls: on, i/O port, output high.

It reads back: firmware, i/O input.

Settings that only the unit's own web page has (its network, logins and firmware) stay on that page.

2. BEFORE YOU START

- ✓ Q-SYS Designer on a Windows computer, and a Q-SYS Core.
- ✓ The CR-EXPAND1 on the same network as the Core, or routed to it, with TCP port 8000 open between them.
- ✓ The unit's IP address (front panel or its own web page).

3. INSTALL THE PLUGIN

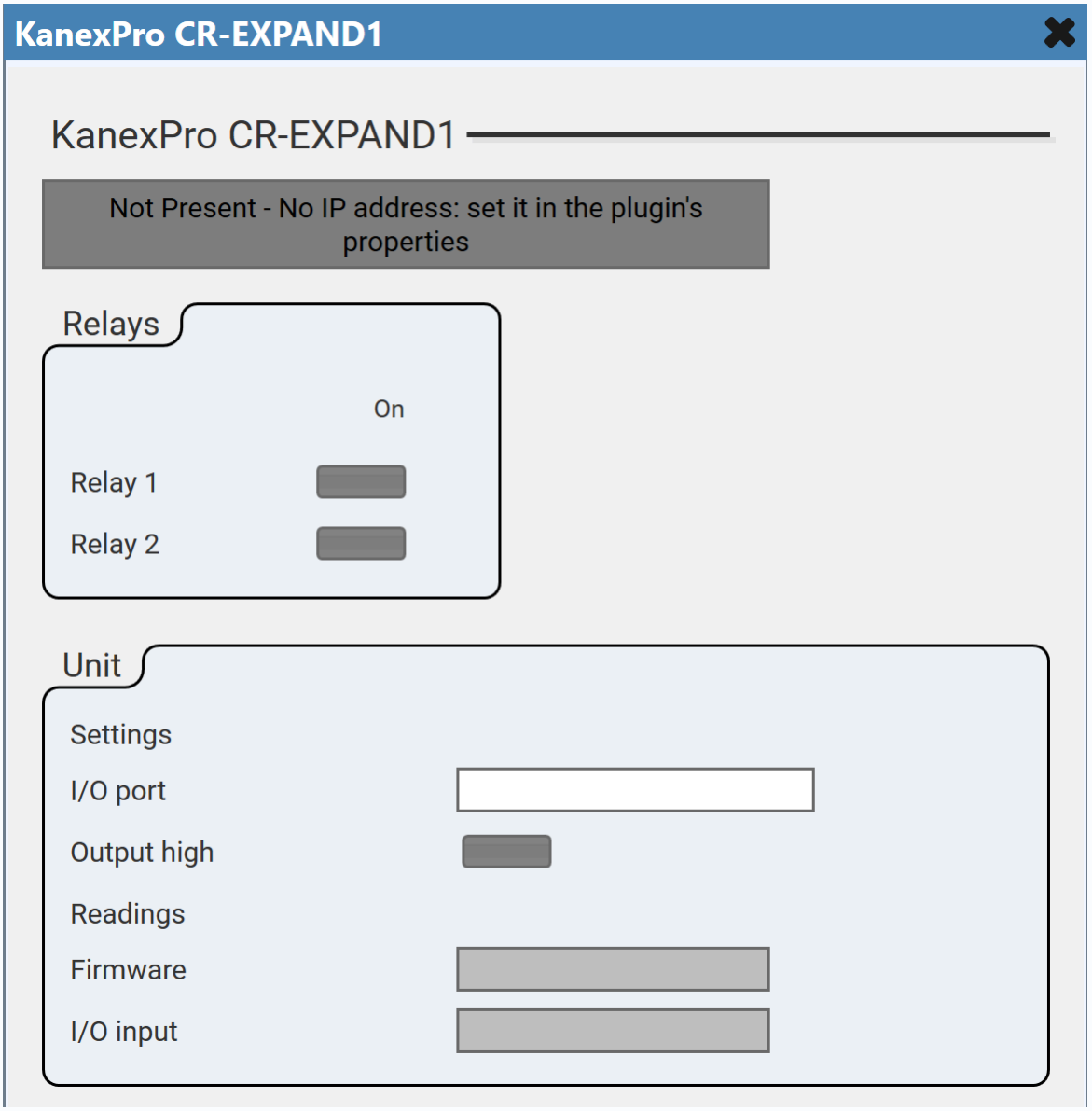
1. Download **KanexPro-CR-EXPAND1-QSYS-1.0.5.zip** from the CR-EXPAND1 page on kanexpro.com (Resources) and unzip it.
2. Copy `KanexPro-CR-EXPAND1.qplug` into `Documents\QSC\Q-Sys Designer\Plugins` on the Q-SYS Designer computer, or drag the file onto Designer's window.
3. Restart Q-SYS Designer. The plugin appears in Schematic Elements under **Plugins > KanexPro**.
4. Drag it into the design, select it and set its properties (section 4).
5. Save the design to the Core and run it. The plugin connects by itself and shows its state on its Status control.

> **One plugin per unit —** for two CR-EXPAND1 units, add the plugin twice and give each its own IP address.

4. PROPERTIES

PLUGIN PROPERTIES	
IP Address	The CR-EXPAND1's address on the control network. Empty by default.
Port	8000 (TCP), the unit's control port. Change it only if the unit's own web page was set to another port.
Poll Interval	How often, in seconds, the plugin reads the unit back. Default 10; 0 reads it only after a change from Q-SYS.

5. THE PLUGIN IN Q-SYS DESIGNER



The CR-EXPAND1 plugin's control panel in Q-SYS Designer

6. CONTROLS

7 controls. Where a control is repeated for each input or output, it is listed once.

#	Control	Where	What it does
0	**Status**	the plugin	Shows whether the plugin is connected to the unit, and why not (section 7).
1	**On**	each ch	Turns the on on or off on each ch.
2	**I/O port**	the unit	Sets the i/O port. Choices: Input; Output. It starts as an input and goes back to input after a power cut or restart.
3	**Output high**	the unit	Turns the output high on or off. Only when the I/O port is set to output (I/O port, here or in its web page); it starts as an input after every restart.
4	**Firmware**	the unit	Shows the unit's firmware.
5	**I/O input**	the unit	Shows the unit's i/O input.

7. STATUS

STATUS CONTROL	
OK (green)	Connected to the unit and reading it back.
Initializing (blue)	Connecting. It tries again every few seconds by itself.
Fault (red)	Not connected, with the reason: the unit does not answer, or the connection was refused or closed.
Compromised (orange)	Connected, but the unit refused the last change. The text names it. The control returns to what the unit reports at the next read.
Not Present (grey)	No IP address is set in the plugin's properties.

8. TROUBLESHOOTING

The Status control shows Fault and it does not connect.
Check the IP address: find the unit's address on its front panel or its own web page and compare it with the plugin's IP Address property. A unit on DHCP may have moved; give it a fixed address or a DHCP reservation.

The address is right, but it still does not connect.
Check the network path. The Core and the unit must reach each other: the same network or VLAN, or a route between them. From a computer on the Core's network, the unit's web page should open at its address.

Could a firewall be blocking it?
Yes. A firewall or switch ACL between the Core and the unit must allow TCP port 8000 to the unit. Also leave the Port property at 8000 unless the unit's own web page was set to another port.

It connects, but a change does not happen.
The Status control shows Compromised and names the command the unit refused. The unit may be in standby: turn it on first.

Changes made on the unit do not show in Q-SYS.
Set Poll Interval above 0. Changes made on the unit's front panel, remote or web page then show within that many seconds.