

# Building Control Systems



February 27, 2006

## NXS Frequently Asked Questions

### Warranty

**How long is the warranty on the NXS drive?**

2 years.

### Parts

**What is the part number for the AI/AO (6 DI; 1 DO; 2 AI; 1 AO) card?**

Vacon part number NXOPTA1 is Honeywell part number 32006630-005.

**What is the part number for the relay board?**

Vacon part number NXOPTA2 is Honeywell part number 32006630-003.

**What is the part number for the display?**

Vacon part number NXPAN\_A is Honeywell part number 32006629-002.

**What is the part number for Lon bus card?**

Vacon part number NXOPTC4 is Honeywell part number 32006630-001.

**What is the part number for the Modbus card?**

Vacon part number NXOPTC2 is Honeywell part number 32006630-002

**My input lugs are stripped, what are the replacement parts?**

Stripped input lugs are not field repairable. The drive will have to be returned.

**My output lugs are stripped, what are the replacement part numbers?**

Stripped output lugs are not field repairable. The drive will have to be returned.

### Application

**Can I control 2 or more VFD's from one input signal?**

Yes. mA would be in series and Vdc would be in parallel. Make sure the impedance of the controller is compatible with the number of drives being connected. The input impedance for the mA signal is 250 ohms. The input impedance for voltage is 200 Kohm.

**Can I use the speed of one VFD to control the speed of a second VFD?**

Yes. Connect a second VFD can be controlled using the mA analog output of the 1<sup>st</sup> drive, terminals 18 (AO1+) and 19 (AO-) of the controlling drive connected to 4 (AI2+) and 5(AI2-) of the second drive.

### Troubleshooting

**The VFD does not start.**

Is start signal present? Check for wires on Pins 6 and 8.

**If the drive is being controlled via an analog input is this control signal connected?**

**The VFD does not respond to my analog input.**

Are wires connected to correct terminals; 2(AI1+) and 3(AI1-) for 0-10 Vdc; 4(AI2+) and 5(AI2-) for 4-20 ma signals?

What is the AI value shown on the monitor? V1.11 for AI1 (Vdc) or V1.12 for AI2 (ma).

Have you measured the voltage or current input?

## Error Codes

**I have F1 (Overcurrent) error code.**

Cause(s):

The drive has detected to high a current in the motor cable.

Solution(s):

- Check the current limit in basic parameters 2.1.5. It should be 1.5 times the nameplate value of the motor.
- Check connections to motor. Is cable shield properly grounded, are connections tight.

**I have F7 (Saturation Trip) error code.**

Cause(s):

Various causes, e.g. defective component.

Solution(s):

If drive does not reset, the drive will have to be replaced.

**I have F9 (Undervoltage) error code.**

Cause(s):

DC link voltage is under voltage limits.

Solution(s):

Check input voltage.

**I have F10 (Input Line Supervision) error code.**

Cause(s):

Input line phase is missing.

Solution(s):

- Check input voltage, phase to phase and phase to ground.
- Verify the motor is working properly. You may have to use PWM meter to catch rapid changes in load to the motor that is going through the drive. A regular volt meter may not catch power spikes that of short duration that the drive can detect.

**I have F11 (Output Phase Supervision) error code.**

Cause(s):

Current measurement has detected that there is no current in one motor phase.

Solution(s):

- Check output voltage, phase to phase and phase to ground. The phase to ground voltage should be roughly ½ the phase to phase voltage.

**I have F14 (Frequency Converter Over Temperature) error code.**

Cause(s):

The heat sink temperature is above 194°F.

Solution(s):

- Ambient temperature limit is 104°F for low overload applications and 122°F for high overload applications. Check heat sink for clogging. Clean heat sink. Increase ventilation to the drive.

### **I have F16 (Motor Over Temperature) error code.**

Cause(s):

Motor overheating has been detected by frequency converter motor temperature model.

Solution(s):

- This fault is generated from the drive monitoring output voltage and current.
- Verify nameplate values on motor are the same as those in basic parameters.
- Check the current limit in basic parameters 2.1.5. It should be 1.5 times the nameplate value of the motor.

### **I have F40 (Device Unknown) error code.**

Cause(s):

Unknown option board or drive.

Solution(s):

- Was a new board or device been installed?
- Check NXPTOA1 board. Voltage should be 24 Vdc between terminals 6 and 7 or 12 and 13.
- Take card out and reseal it.
- If board is good drive will have to be replaced.

## **Bypass**

**Motor runs one way when switch is in the bypass mode and the other way when motor is in VFD mode.**

Solution(s):

Check wiring to the motor.

## **Literature**

- Literature is available at [www.customer.honeywell.com](http://www.customer.honeywell.com)
- VFD product catalog is 70-6924
- Application guide is 63-7062
- User's manual(s)
- NXS - 63-2600
- NXL - 63-2599

## **Hotline**

The hotline phone number is 763-954-6464.