



Application Bulletin

September 10, 2007

Converting from the OCS250 to the NX250/251/252

CONVERTING

From the OCS250 to the NX250/251/252

As the OCS250 product matures, it becomes more and more advantageous for customers to start using next generation OCS controllers. The NX Family is the best choice as a replacement for the OCS250 if you are looking for similar screen type, screen size, and overall functions. If you want to consider upgrading to an OCS touch screen model, please contact our Technical Support group for advice. If you decide to transition to the NX family, there are a few conversion issues that need to be considered.

The NX250/251/252 OCS Controller family contains several notable benefits over the OCS250. One or more may be reason enough to make the conversion desirable.

Significant benefits are:

1. Faster processing speed.
2. Standard Removable Media for data storage and retrieval.
3. Downloadable protocols for connectivity to other devices (DF1, SNP, Modbus).
4. Standard I/O Expandability through the embedded fiber optic expansion (FOX) interface.
5. Supports new Plastic I/O Modules.
6. Built-in Ethernet, Web Server, and built-in HCS optionally available.

CONVERSION ISSUES:

	OCS250	NX250/251/252	Comment
Panel Cutout	6.75" x 10.185"	5.1614" x 8.0375"	Would require building an Adapter Panel to replace the OCS250 with NX.
Cscape Configuration		Must be Modified	Screens and Ladder Program will directly transition, (I/O Addressing must be Reviewed).

THINGS TO BE AWARE OF THAT MAY NEED ACTION:

	OCS250	NX250/251/252	Comment
Cscape 7 or Newer		Needed for NX support	
Port 2 (Connection)	DB9 – RS232 6 Pin Terminal – RS485	10 Pin Terminal – RS232 or RS485	Adapt wiring
Keypad – Relegendable	Yes on early units	No	Custom overlay can be ordered for NX
Dimensions- Keypad Bezel	7.875” – Height 11.125” – Width 1.85” – Depth	6.44” – Height 9.044” – Width 2.625” – Depth	Base Units PLUS attached SmartStack modules.
FOX I/O Support	Optional SmartStack Module	Standard	
I/O Type	Metal SmartStacks	Plastic SmartStacks	
Ethernet	Optional SmartStack Module	Medels NX251/252 have built-in Ethernet	
Device Net Slave	Supported with Firmware Download	Use DNS600 SmartStack module	Must find a place to mount the additional module.
Built in >500 KHz HSC and PWM	No	Model NX252 has built-in HSC	If used, Program review, Configuration change is required.

THINGS TO BE AWARE OF:

	OCS250	NX250/251/252	Comment
Voltage Range	10-30VDC	10-32VDC	
Current Draw Steady State	350mA @ 24VDC	400mA @ 24VDC	
Inrush Current (Startup)	800mA or 50ms.	28A for 1ms.	In house experience with many units, has not shown this to be a problem.
Listings	UL, CE	UL, CE	
Operating Temperature	0–60 Deg. C (0–50 Deg. C suggested)	0-50 Deg. C	
Screen Resolution	240 x 128	240 x 128	

	OCS250	NX250/251/252	Comment
Keypad – Soft Keys	Yes	Yes	
Keypad LED's	Yes	Yes	
Ports	2 Total	2 Total	
Port 1 (Connection)	DB9	DB9 or RJ45	
Ladder Scan Time Contribution	0.7 ms/K Memory	0.1 ms/K Memory	
Removable Media	No	Standard	CompactFLASH card
Cscan	Standard	Standard	
Downloadable Protocols	No	Yes	
Web Server	No	Available with models NX251/252	

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