NS600 & HMI System Block Diagram #1



NS600 & HMI RS422 Multi-drop Wiring

* See Installation Guide for additional installation instructions

Wiring & Installation Notes:

contact area (see figure 1)

1)

2)

3)

4)

CN6 (3M 14-N pin socket) HM PLC Port S (DB15-Pin) ChA+ 14 -3 RXD 6 ChA-6 /RXD TXD ChB+ 15 0 ChB-2 /TXD Note: ChA + = Tx +GND GND 14 ChA - = Tx -0 ChB+ = Rx+FG 8 TXD ChB = Rx-#1 9 /TXD RXD 10 At cable ends, fold back shield and wrap with a thin copper tape, this will maximize /RXD 6 Cable shields at NS600 side should be placed inside the 3M connector shield clamp The last NS600 (axis n) will need to be terminated. Short pins 6 & 7 to use the internal 100 ohm resistor. If noise persists, it may be necessary to tune the transmission line. Refer to Texas Instruments Application Report #SLLA070A - May 2000. In summary, it may be necessary to add the following: a terminating resistor at the HMI Rx side, AC termination (1000pF cap in series with RT), Pull-up/pull-down resistors at HMI Rx side, CN6. 3M 14 N socket Digital Ground and Field ground resistors. Maximum number of axis(n) = 16 (must set ADRS switch), Max cable length = 50 meters, S Max transmission speed = 38.4kBaud, 7-bit ASCII Code data protocol. 14 GND TXD 6 /TXD \geq 2 Shield clamp on Clamp-connector 3M connector contact point \geq 3 RXD 0 /RXD \geq 0 /RXD 6

RT

#n

In the case of long cable lengths, 5) it may be necessary to terminate the shield at the local Field Ground location for that amplifier

NS600 mating connector is 14 6) pin, Yaskawa kit "YSC-1" includes 3M parts Connector: 10114-3000VE and Shell: 10314-52A0-008



NS600 & HMI RS485 Multi-drop Wiring

* See Installation Guide for additional installation instructions



Wiring & Installation Notes:

- At cable ends, fold back shield and wrap with a thin copper tape, this will maximize 1) contact area (see figure 1)
- Cable shields at NS600 side should be placed inside the 3M connector shield clamp 2)
- The last NS600 (axis n) will need to be terminated. Short pins 6 & 7 to use the internal 3) 100 ohm resistor. If noise persists, it may be necessary to tune the transmission line. Refer to Texas Instruments Application Report #SLLA070A - May 2000. In summary, it may be necessary to add the following: a terminating resistor at the HMI side, AC termination (1000pF cap in series with RT), Pull-up/pull-own resistors at HMI side, Digital Ground and Field ground resistors.
- Maximum number of axis(n) = 16 (must set ADRS switch), Max cable length = 50 meters, 4) Max transmission speed = 38.4kBaud, 7-bit ASCII Code data protocol.
- In the case of long cable lengths, 5) it may be necessary to terminate the shield at the local Field Ground location for that amplifier
- NS600 mating connector is 14 6) pin, Yaskawa kit "YSC-1" includes 3M parts Connector: 10114-3000VE and Shell: 10314-52A0-008

