## CTL-(x)/MS25 Specification Sheet

## DESCRIPTION

The CTL-(x)/MS25 cable is for use with all single resolver HT-400 transducers that have a connector. These transducers include the HT-400 single turn transducers and the HT-400-X multi-turn transducers. The (x) in the cable part number denotes the cable length in feet. \{A CTL-25/MS25 is 25 feet ( 7.6 meters) long.\}
The CTL-(x)/MS25 cable is a standard CTL cable with an MS25 connector instead of an MS-16. Therefore, the CTL(x)/MS25 replaces all CT-(x), C1T-(x), C1TG-(x), C1TP-(x), C2T-(x), C3T-(x) and C4T-(x) cables in all documentation when using an HT-400 transducer. Multiple CTL-(x)/MS25 cables can be purchased and wired together to replace the $\mathrm{C} 2 \mathrm{~T}, \mathrm{C} 3 \mathrm{~T}$, and C4T cables.
Note that the CTL-(x)/MS25 transducer cable does not include a mating connector for the controller. These connectors are supplied with the PLC plug-in module or controller. For correct connections, please see the cable wiring diagram in the installation section of the controller's manual.

## PIN OUT DRAWING



## TECHNICAL DATA

One of two cable types is used for the CTL-(x)/MS25 cable. For cable length under 100 feet, Belden 9873 or exact equivalent is used. For cable lengths over 100 feet, Belden 9730 or exact equivalent is used. The reason for the change is because of cable capacitance which causes a phase shift in the resolver signals. The 9730 has a much lower cable capacitance because of its smaller conductors, (24AWG instead of the 9873's 20AWG), but these smaller conductors can also make it harder to install.
If you are making your own cable, Belden 9730 can be used for any length.
If you need a high temperature cable, AMCI suggests using Belden 89730 cable with foamed Teflon insulation. AMCI's FAQ "What Transducer Cable Can I Use In High Temp or High Flex Applications?" gives installation guidelines on the 89730 cable. This document can be found in the FAQ section of our website, www.amci.com.

|  | Belden Cable Number |  |
| ---: | :---: | :---: |
|  | 9873 | 9730 |
| Max. Cable Length | 100 ft. | 1000 ft. |
| Wire Gauge | 20 AWG <br> $(7 \times 28$ Stranded) | 24 AWG <br> $(7 \times 32$ Stranded $)$ |
| Jacket Insulation Material | PVC | PVC |
| Wire Insulation Material | Polyethylene | Polyethylene |
| Temp. Rating | $-20^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$ |
| Capacitance | $30.0 \mathrm{pF} / \mathrm{ft}$. | $12.5 \mathrm{pF} / \mathrm{ft}$. |

