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Find the *DDC / North Hills DB12005-026* at our website: *Click HERE*

North Hills™ Signal Processing Corp.

ISO 9001:2008 Certified

IN-LINE MICRO COUPLERS

North Hills provides In-line data bus couplers with up to five transformer-coupled stub output ports (units with more than five stubs are available on special order). These units are available with and without internal terminations and are for use in applications where mounting can be accomplished by wiring the coupler into the harness. These units can be supplied with a variety of different connectors and cables (MIL-C-17/176-00002 is standard) or without connectors for splicing or integrating into harnesses. The standard stocked units are manufactured with 12 inch long (30cm or 300mm) MIL-C-17/176-00002 cable. Couplers can also be ordered with custom cable lengths and a variety of connectors for direct installation on any system. Using in-line couplers in your data network reduces the number of connectors which significantly improves the calculated reliability (MTBF).

All resistors are 1 Watt per MIL-R-39007, Failure Grade S and mounted away from the transformer to minimize heating effects. The transformers are manufactured to MIL-T-21038. These couplers are Flight Qualified and have successfully completed a 1000 hour life test at +125°C and 100% duty cycle. Copies of test reports are available upon request. Space Qualified couplers are also available. Please refer to the appropriate data sheet for more information.

All products are 100 % tested and certified. For maximum system reliability multiple couplers can be daisy chained at the factory into an integrated harness with no splices. Specification Control Drawings are available to help you document the part selected for your application.



North Hills Model # DB10005 In-Line Micro Coupler.

Features:

- 1 Watt resistors
- -55ºC to +125ºC operating temperature
- Single or Multi-Stub

Benefits:

- Flight qualified
- Small and lightweight
- 100% Tested
- Can be supplied as a complete harness according to customer specification

Electrical Specifications:

All parameters are in accordance with MIL-STD-1553B and Notice 2.

Droop	20% Maximum (250 kHz)
Overshoot and Ringing	± 1.0V Peak (250 kHz square wave with 100 ns maximum rise and fall time)
Common Mode Rejection	-55.0 dB (Min) @ 1 MHz
Fault Protection	59Ω ± 1%, 1 Watt per MIL-R-39007
Turns Ratio	1:1.41
Stub Voltage	$1.0V_{PP}$ to $14.0V_{PP}$ transformer coupled
Operating Temperature	-55ºC to +125ºC
Storage Temperature	-55ºC to +150ºC
Electrical Notes (see coupler schematic diagram on page 2)	R1=R2= 59Ω(1 watt per MIL-R-39007), Z_0 = Nominal Line Impedance of Bus 78Ω, N = 1.41

Higher temperature units available.

Specifications subject to change without notice.

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Syosset, NY 11791

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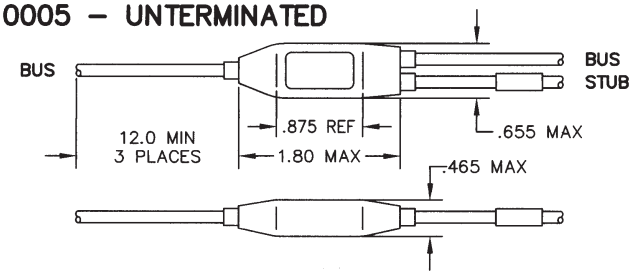
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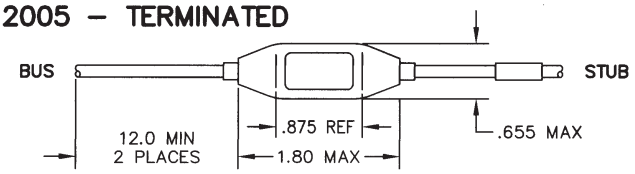
IN-LINE MICRO COUPLERS

The use of in-line couplers can reduce the number of connectors in the network thereby improving the calculated reliability significantly.

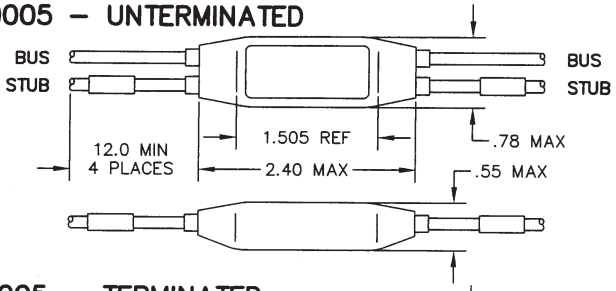
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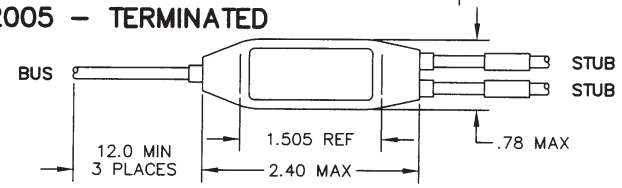
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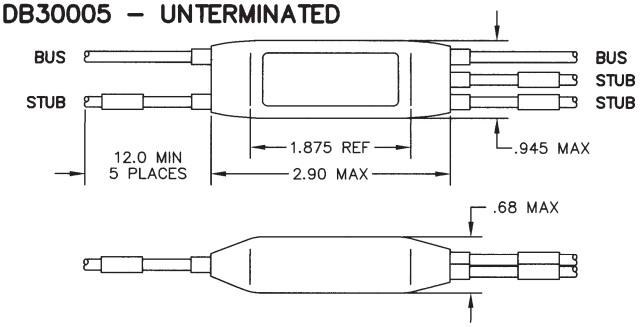
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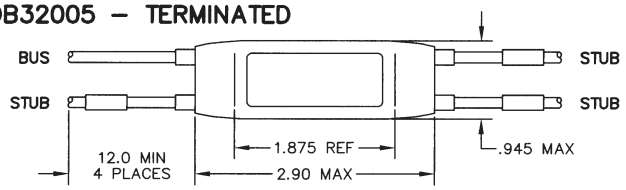
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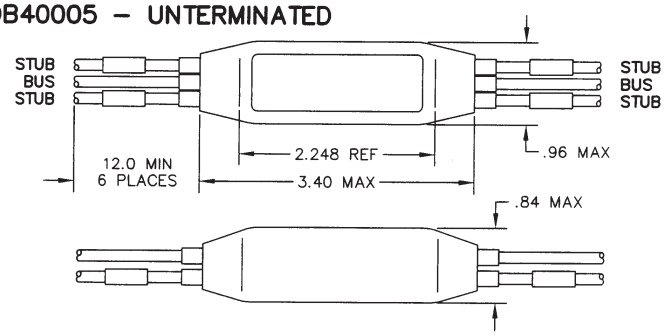
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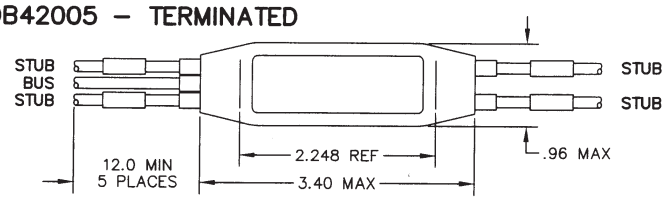
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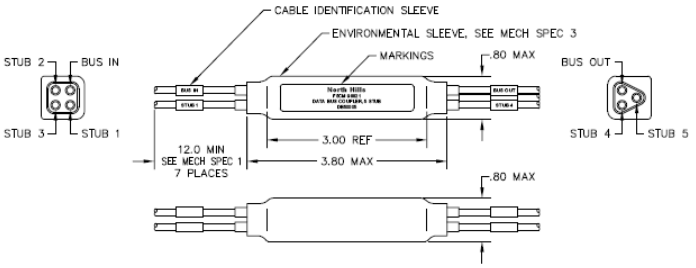
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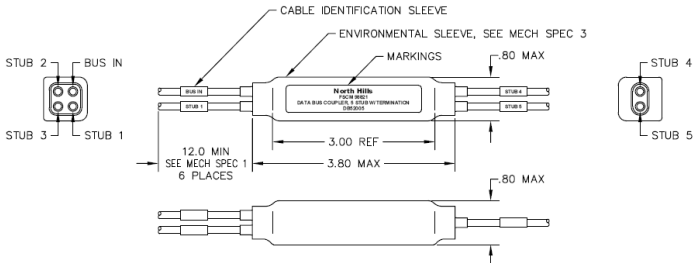
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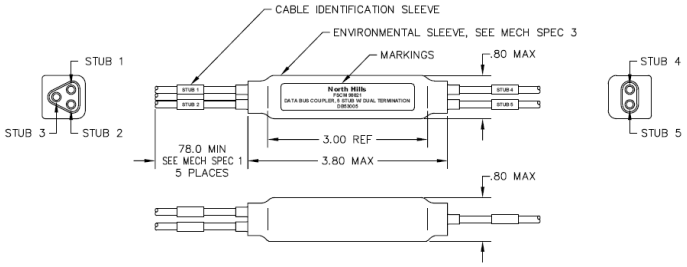
DB50005 - UNTERMINATED



DB52005 - TERMINATED



DB53005 - TERMINATED (2)



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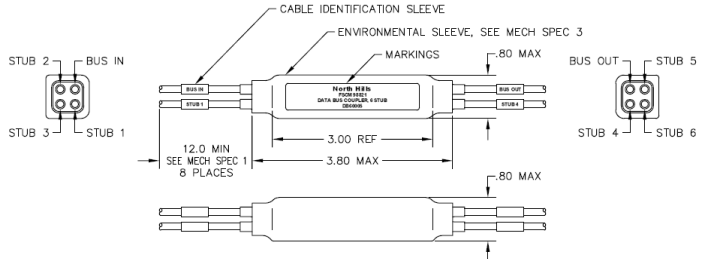
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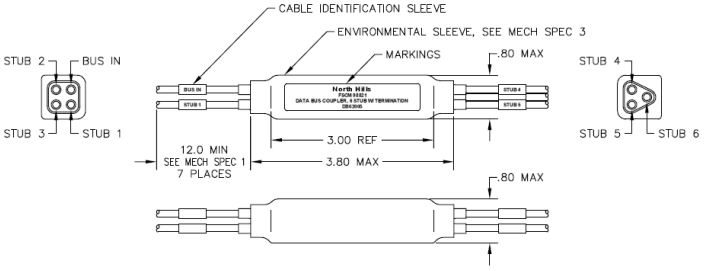
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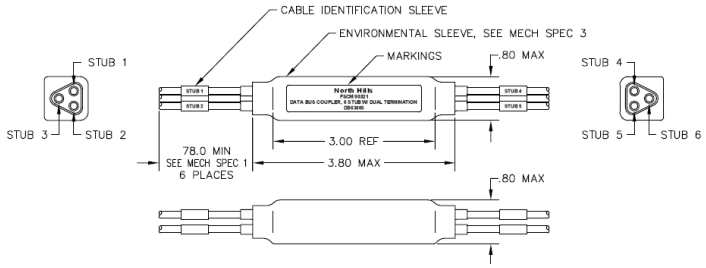
DB60005 - UNTERMINATED



DB62005 - TERMINATED

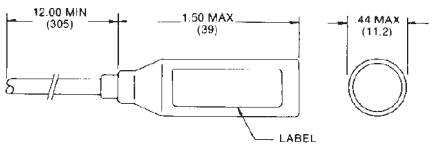


DB63005 - TERMINATED (2)

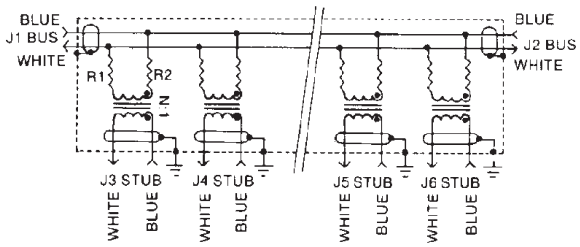


Terminator

DB03005



Coupler Schematic Diagram



Ordering Information:

Description	Model #	WT[1] (Gms)
Terminator	DB03005	6
1 Stub Coupler	DB10005	8
1 Stub Coupler with Terminator	DB12005	14
2 Stub Coupler	DB20005	18
2 Stub Coupler with Terminator	DB22005	24
2 Stub Coupler with 2 Terminators	DB23005	24
3 Stub Coupler	DB30005	28
3 Stub Coupler with Terminator	DB32005	34
3 Stub Coupler with 2 Terminators	DB33005	34
4 Stub Coupler	DB40005	50
4 Stub Coupler with Terminator	DB42005	56
4 Stub Coupler with 2 Terminators	DB43005	56
5 Stub Coupler	DB50005	NA
5 Stub Coupler with Terminator	DB52005	NA
5 Stub Coupler with 2 Terminators	DB53005	NA
6 Stub Coupler	DB60005	NA
6 Stub Coupler with Terminator	DB62005	NA
6 Stub Coupler with 2 Terminators	DB63005	NA

[1]Excluding cable. Consult factory for connectorized coupler assemblies or other cable lengths/types.

Accessories:
For external bus termination use DB03005.
Extended cables with MIL-STD-1553 twinax cable P/N 590M-17/176-00002
Splice with splice kit P/N 571-18-8002
Test with DBT100A.

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