Molex's compact SST™ DN4 DeviceNet* USB interface module uses an enhanced FPGA design to maximize performance in control and monitoring applications

SST™ DN4 DeviceNet* USB Interface Module

112076 USB Interface module

The SST™ DN4 DeviceNet* USB module from Molex was developed to provide industrial OEMs and end-users with a compact, high-performance DeviceNet* interface for PC communication. Ideal for use in control and monitoring applications, Molex's USB design is the result of 15 years of DeviceNet* product expertise.

The SST™ DN4 USB interface module uses an enhanced FPGA (Field Programmable Gate Array) design with a lower component count, resulting in an extended product lifecycle and higher reliability.

For more information on Molex's SST™ DN4 DeviceNet* products visit: www.molex.com/link/dn4.html



SST™ DN4 DeviceNet* USB Interface Module

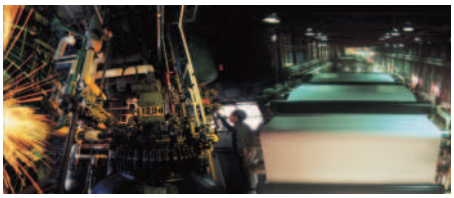
FEATURES AND BENEFITS

- Scans DeviceNet* in 3 to 5 milliseconds for a high-performance module for control applications
- Provides simultaneous execution of Group 2 Client (Master) and Server (Slave) operations for applications where both capabilities may be required
- Supports poll, strobe, change-of-state (COS) and cyclic input/output messaging flexibility for any DeviceNet* control scheme
- QuickConnect capability in Client (Master) mode ensures devices may be accessed faster on power-up (in under 500 milliseconds)
- Used in Controller Area Network (CAN) networks (2A, up to 1Mb per second), and DeviceNet* networks (at 125, 250 or 500kB per second); one device supports multiple networks
- SST™ DN4 USB interface module is a functional replacement for the DNP PCMCIA cards providing backward compatibility with DNP cards
- Conformance tested to ODVA standards (Volume 3, v.1.8 for DeviceNet*) meeting industry standard requirements

MARKETS AND APPLICATIONS

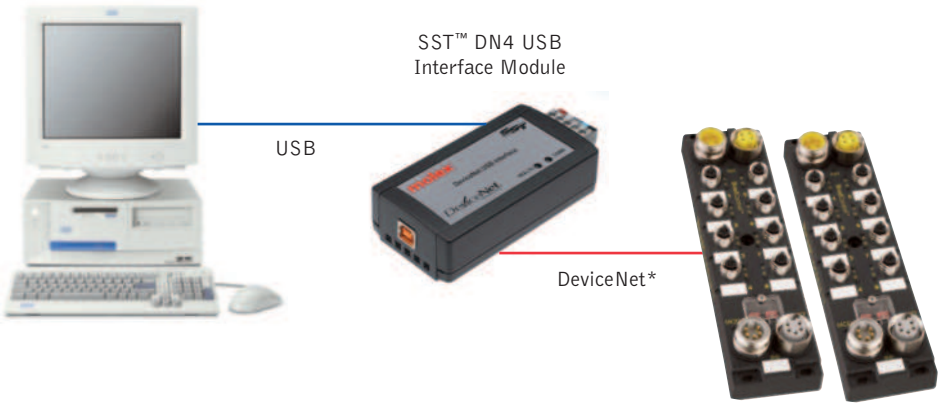
- Applications
  - PC control systems
  - HMI/SCADA (Human Machine Interface / Supervisory Control and Data Acquisition) systems
  - Robot and other machine control
  - Diagnostics
- Markets
  - Automotive
  - Semiconductor
  - Material handling
  - Pulp and paper
  - Food and beverage
  - Mining and metals





OPERATING SYSTEMS AND DRIVERS SUPPORTED

- Windows XP / Vista / 7 drivers (32 bit)
- The Console; a grouping of software tools including OPC server configuration and diagnostic tools
- Open, documented memory map interface with example C source code and Windows 32-bit DLLs for custom driver development



PC Control / Monitoring Example

*DeviceNet and CIP are trademarks of ODVA

SPECIFICATIONS - GENERAL

Bus Interface	USB High-Speed 2.0 compatible Standard USB Type B receptacle
Processor	64 MHz NIOS Processor
Diagnostics	LEDs showing card status Health (tri-colour) Communication (bi-colour)
Dimensions	Width: 102mm (4.016") Depth: 54.0mm (2.126") Height: 30.0mm (1.181")
Typical Current Draw (USB)	4.75 to 5.25V DC, 80mA max.
Addressing: I/O	Up to 500 bytes of input data and 500 bytes of output data per I/O connection as a DeviceNet master or slave
Operating Temperature	0 to +60°C (+32 to +140°F)
Storage Temperature	-40 to +85°C (-40 to +185°F)
Humidity	5 to 95% non-condensing
Product Compliance	cULus, CE FCC (Part 15, Subpart B – Class A) RoHS

SPECIFICATIONS - NETWORK

Protocol	DeviceNet* Master – Group 2 Client, Group 2 only Client DeviceNet* Slave – Group 2 Server Compliant with ODVA DeviceNet* Specification 1.8 Compliant with CAN 2.0 A
Cable	Shielded twisted pair, compatible with target network
Connector	DeviceNet* compliant 5-pin CAN connector
External Power	11 to 25V DC, 60mA max.
Isolation	Isolated CAN physical layer 500V DC
Data Rate	Up to 1M baud for CAN 125K, 250K and 500K baud for DeviceNet*

ORDERING INFORMATION

SST™ DN4 DeviceNet*USB Interface Module

Order No.	Catalog No.	Description
112076-0001	SST-DN4-USB	DeviceNet* USB interface with 5-pin connector
112076-0002	SST-DN4-USB-SM	DeviceNet* USB interface with 5-pin to M12 Sealed Micro connector

Note: SST™ DeviceNet* remote diagnostic software is included with each module

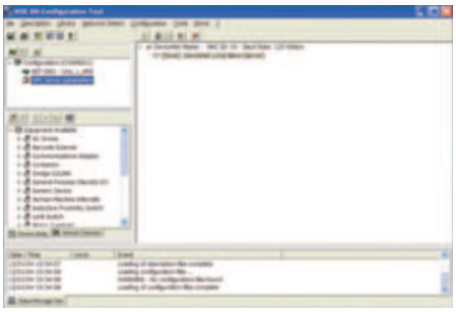
DeviceNet *Software Console Tools and OPC Server

Order No.	Catalog No.	Key
112030-0007	SST-DN3-CNF-U (single license)	USB
112030-0006	SST-DN3-CNF-P (single license)	Parallel Port
112027-0014	SST-DN3-OPC (single license)	-

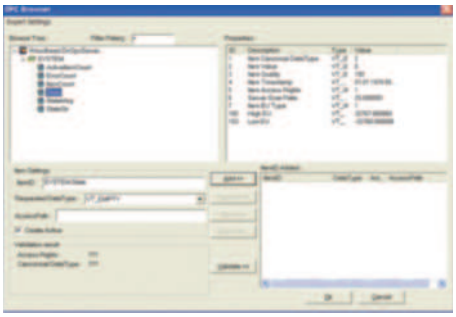
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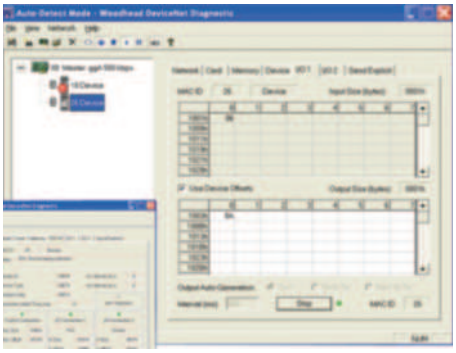
DeviceNet Software Tools
(Software available for the SST™ DeviceNet* interface enables fast integration of industrial communication into the customer's application)



Configuration Console



OPC Browser



Diagnostic and Test Tools

Order No. 987650-5301 Printed in EUR/GF/2010.12
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