

DeviceNet Wireless Units WD30

Wireless DeviceNet Units Connects Slaves without Wires

- Up to 3,200 I/O points can be communicated through a Master Unit.
- Uses spread spectrum technology for superior noise resistance in manufacturing environments.
- Compact construction for easy installation.
- Long-range communications have been achieved with a relay function (3 repeaters max.).
- Message communications are supported.



WD30-ME
(WD30-SE)

WD30-SE01
(WD30-ME01)

Ordering Information

List of Models

Name	Number of I/O points (words used)	Model	Antenna style
DeviceNet Wireless Master	1,600 inputs max. (100 words) 1,600 outputs max. (100 words)	WD30-ME	Pencil-type antenna
		WD30-ME01	Magnetic base antenna
DeviceNet Wireless Slave	512 inputs max. (32 words) 512 outputs max. (32 words)	WD30-SE	Pencil-type antenna
		WD30-SE01	Magnetic base antenna
Magnetic Base Antenna (1)	---	WD30-AT001 (See note.)	---

Note: The WD30-AT001 Magnetic Base Antenna can be used with the WD30-ME, WD30-ME01, WD30-SE, and WD30-SE01.

Optional Accessories (Micro Connectors)

Name	Model	Specifications
Shielded T-branch Connector	DCN2-1	Connector with one branch
Cable with Shielded Connectors	DCA1-5CN□□W1	Cables with connectors on both ends
	DCA1-5CN□□F1	Cables with a connector socket on one end
Shielded Terminator	DRS2-1	Terminator with plug connector

Included Accessories

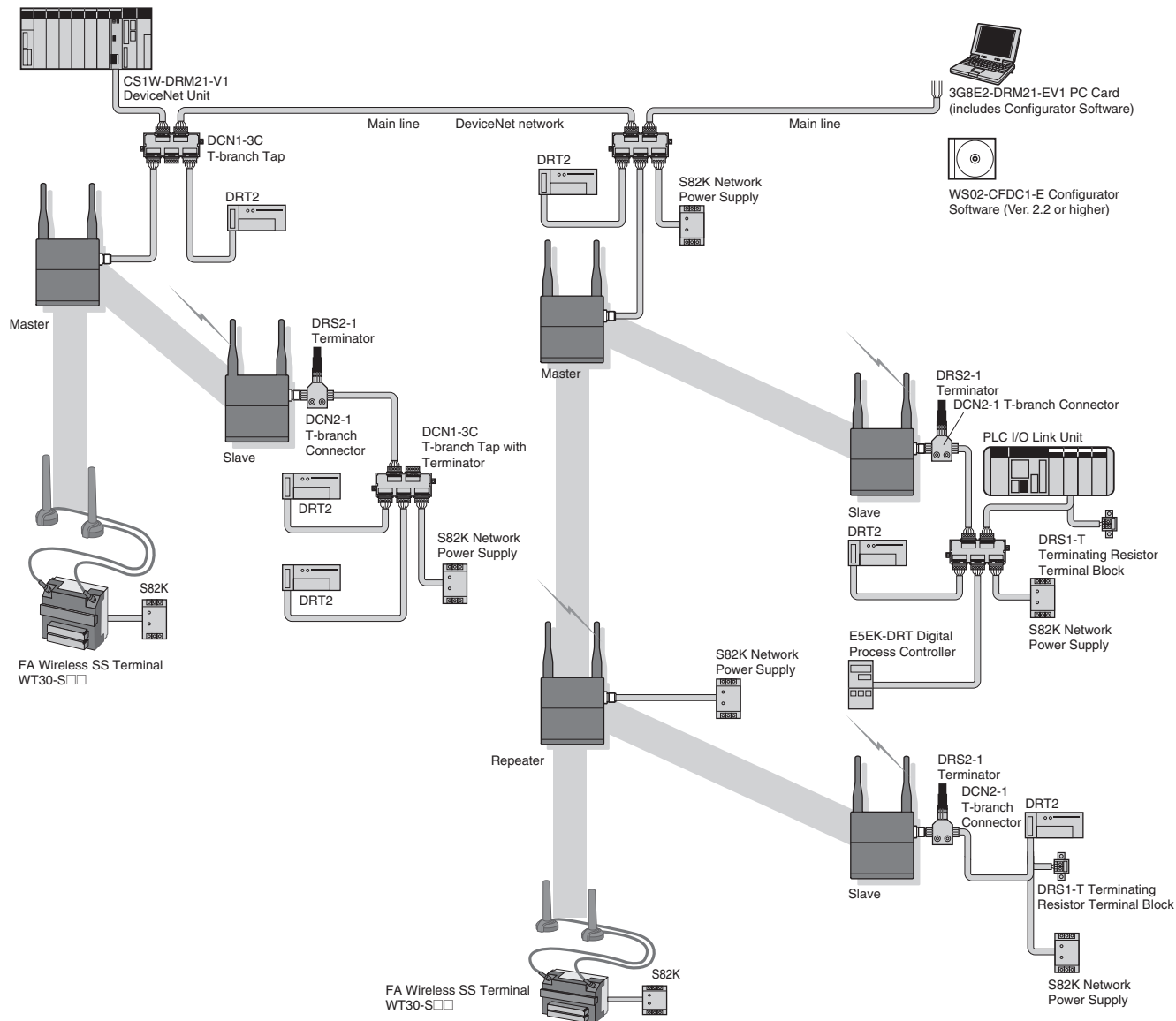
The following accessories are included with a DeviceNet Wireless Master or DeviceNet Wireless Slave.

- Two antennas
- DeviceNet Wireless Units Instruction Sheet
- Two M4 mounting bolts (with nuts, flat washers, and spring washers)

Optional Accessories (Configurator Software)

Name	Model
Configurator (PC Card)	3G8E2-DRM21-EV1
Configurator Software	WS02-CFDC1-E

System Configuration



Specifications

■ General Specifications

Item	Specifications
DeviceNet communications power supply voltage	11 to 25 VDC (Supplied from the DeviceNet network power supply.)
Current consumption (See note.)	350 mA max. (at startup), 120 mA average
Ambient temperature	Operating: -10° to 50°C Storage: -20° to 65°C
Ambient humidity	Operating: 25% to 85% (with no condensation)
Weight	Approx. 200 g

Note: Select a power supply with excess capacity. (We recommend a minimum of 25 W.)

■ Wireless Interface Specifications

Item	Specifications
Wave type	Spread Spectrum (direct sequence; DS-SS)
Communication method	Simplex (half duplex)
Frequency band	2.4 GHz (2401 MHz to 2480.2 MHz)
Number of channels	67 channels (based on frequency division)
Antenna power	10 mW
Data transfer speed between wireless units	100 kbps
Transmission distance (See note 1.)	Indoors: 60 m (approx. 50 m with magnetic base antennas) Outdoors: 300 m (unobstructed)
Relay stations	3 repeaters max.
Max. number of sets in the same area (See note 1.)	10 sets max.
Max. number of wireless Slaves	64 max.

Note: 1. The actual transmission distance depends on many factors in the installation environment.

2. The wireless system is not suitable for applications requiring real-time control.

■ DeviceNet Interface Specifications (Summary)

Item	Specifications	
Communications functions (See note.)	Master/Slave connections	Remote I/O functions and Explicit message communications functions
Self-diagnostic functions	Unit	WDT error, hardware errors (such as memory and CAN errors), and setting errors
	DeviceNet communications	Duplicate node address errors, Bus OFF detection, and connection timeout
Device profiles	Communication control unit	Refer to Appendix A of the <i>WD30 DeviceNet Wireless Units Operation Manual</i> for various DeviceNet IDs (vendor, device type = communication adapter, product code, product revision, product name, serial number, status, and I/O unit IDs.)

Note: FINS message communications are not supported. Explicit messages must be handled in the ladder program. Refer to the *WD30 DeviceNet Wireless Units Operation Manual* for details.

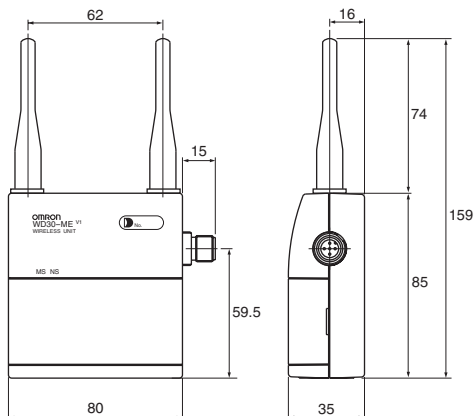
■ I/O Points

Name	Number of I/O points (words used)
DeviceNet Wireless Master	1,600 inputs max. (100 words) 1,600 outputs max. (100 words)
DeviceNet Wireless Slave	512 inputs max. (32 words) 512 outputs max. (32 words)

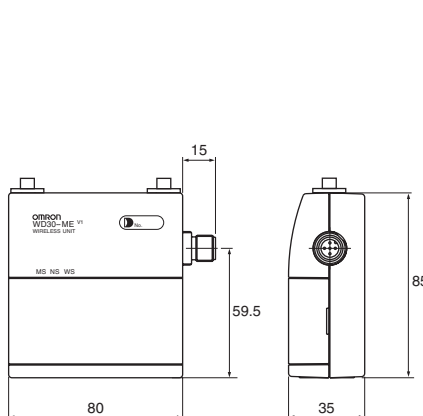
Note: Relay Stations can be used to create up to 3 levels and DeviceNet Slaves can be connected in each level. Terminators are required when Slaves are connected to a Relay Station or Slave Station. Refer to the *WD30 DeviceNet Wireless Units Operation Manual* for details on Terminator installation.

Dimensions (Unit: mm)

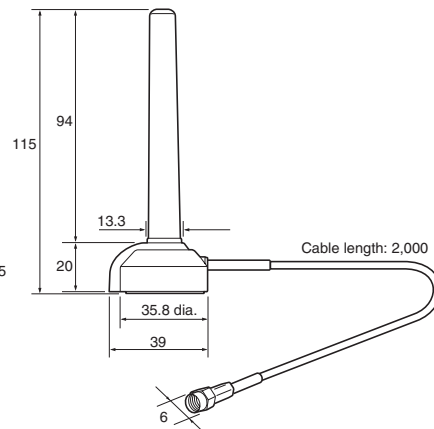
**WD30-ME and WD30-SE
DeviceNet Wireless Units**



**WD30-ME01 and WD30-SE01
DeviceNet Wireless Units**



**WD30-AT001
Magnetic Base Antenna
(Included with the WD30-ME01
and WD30-SE01.)**



Precautions

Refer to the *WD30 DeviceNet Wireless Units Datasheet* (Cat. No. M502, M503) or *WD30 DeviceNet Wireless Units Operation Manual* (Cat. No. M071) for more detailed specifications.

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