

Smart Distributed System (SDS) I/O



SDS Master. The F2-SDS-1 module supports all DL205 discrete and analog I/O modules. The SDS also offers:

- **Cost effectiveness:** SDS offers inexpensive controller and industrial DL205 I/O sub-system.
- **Easy connectivity:** SDS is a low-cost wiring system that's easy to implement and maintain.
- **Innovative technology:** Power is integrated into the device.
- **Diagnostics:** SDS offers advanced error diagnostics not commonly found in traditional systems.
- **High baud rates:** Baud rate brings response time down to 0.10 ms per device.
- **LED indicators:** Provides indication of DL205 Smart Distributed System.

Overview

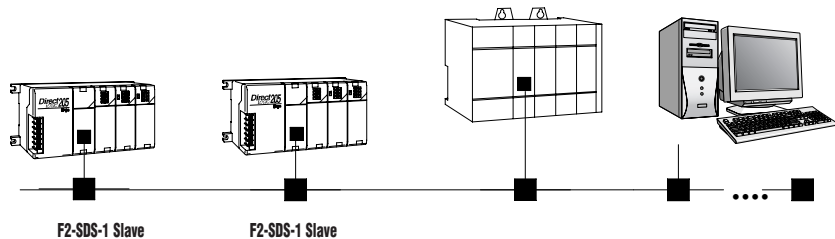
If you are already using or planning to implement an SDS™ controller network, using the F2-SDS-1 module and I/O sub-system can help reduce the cost of your overall application. The Smart Distributed System™ (SDS) provides a means to connect automation equipment and devices on a single network, which eliminates expensive hardwiring. This standard communication media and software provides a low-cost method for controllers and devices to communicate low-level data at high speeds. The SDS standard provides specifications for information exchange between nodes, as well as device-level diagnostics not normally found in other I/O systems. The F2-SDS-1 module allows the well-proven micro-modular DL205 I/O system to be controlled by your SDS master controller.

How it works

The F2-SDS-1 module plugs into the CPU slot of any DL205 I/O base. The module maintains a database with all identification data, diagnostic information, and parameters that are configured within the base and control the operation of the SDS slave module and the I/O. The F2-SDS-1 slave will monitor and report discrete and analog I/O module data to an SDS Master. All AC externally powered DL205 I/O base units contain a 24 VDC, 0.3A power supply for simple wiring of sensors and actuators into the DL205 I/O modules, and for controlling them with an

F2-SDS-1 Interface Specifications	
Module Type	CPU device
Module Location	CPU slot of any DL205 base
Number of I/O	Defined by number of slots per base
Maximum Field Devices per Bus	126 (see table next page)
Max SDS Addresses per CPU	8 discrete, 64 analog
Communication to Field Devices	Standard 4-wire shielded cable to cabinet connector, molded 4-wire cable @ up to 1Mbps to field devices.
Module Connector	5-position removable terminal (European style)
Operating Environment	0°C to 60°C (32°F to 140°F), 5% to 95% humidity (non-condensing)
Internal Power Consumption	160 mA @ 5VDC
Manufacturer	FACTS Engineering

Connect our micro-modular DL205 I/O...



...with your PLC or PC-based SDS master.

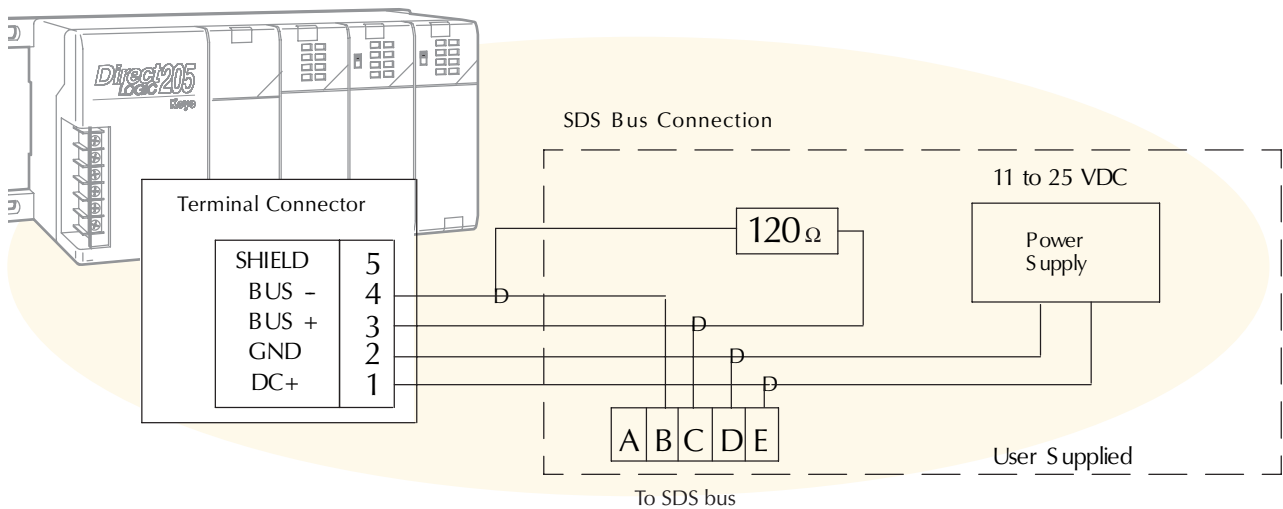
Ask for our D2-INST-M Installation and I/O Manual for complete information about DL205 I/O modules, power budgeting, and installation and wiring. This catalog does not cover CPU-slot controllers.

SDS I/O

I/O base and network considerations

All discrete (except 32-pt.) and analog I/O modules are supported by the F2-SDS-1 slave module. Specialty modules are not supported by the F2-SDS-1 module.

DL205 Style of I/O Modules Supported	
Discrete Types	Analog Types
4-point Input	4-channel Input
8-point Input	8-channel Input
16-point Input	2-channel Output
4-point Output	4-channel In/ 2 channel Output
8-point Output	4-channel Temperature
16-point Output (includes 12 pt)	
4-point Input/4 point Output	



Trunk Length		Baud Rate	Branch Length		Devices
Feet	Meters	Bits/sec	Feet	Meters	
75	22.8	1M	1	0.3	64
300	91.4	500K	3	0.9	126
600	182.8	250K	6	1.8	126
1,500	457.2	125K	12	3.6	126

Other SDS specifications, compatible products, and latest SDS literature information are made available through:

Honeywell MICRO SWITCH Division
 Internet: <http://www.honeywell.com>
 e-mail: info@micro.honeywell.com

Comments to:
 SDS Council, IL50/B4-523
 Honeywell Micro Switch Division
 11 West Spring Street
 Freeport, IL 61032
 Phone: (800)537-6945 • Fax: (815) 235-5623



Power Requirements

These charts help determine your power requirements

This section shows the amount of power supplied by each of the base power supplies and the amount of power consumed by each DL205 device. The Power Consumed charts list how much INTERNAL power from each power source is required for the DL205 devices. Use this information when calculating the power budget for your system.

In addition to the internal power sources, the DL205 bases offer a 24 VDC auxiliary power supply with external power connections. This auxiliary power supply can power external devices.

Use ZIPLinks to reduce power requirements

If your application requires a lot of relay outputs, consider using the ZIPLink AC or DC relay output modules. These modules can switch high current (10A) loads without putting a load on your base power budget. Refer to the Terminal Blocks and Wiring Solutions section in this catalog for more information.

This logo is placed next to the I/O modules that are supported by the ZIPLink connection systems. See the I/O module specifications at the end of this section.



Power Consumed		
Device	5V(mA)	24V Auxiliary
Operator Interface		
DV-1000	150	0
C-more Micro-Graphic	210	0

Power Supplied							
Device	Price	5V(mA)	24V Auxiliary	Device	Price	5V(mA)	24V Auxiliary
Bases				Bases			
D2-03B-1	\$132.00	2600	300	D2-06BDC1-1	\$194.00	2600	None
D2-03BDC1-1	\$150.00	2600	None	D2-06BDC2-1	\$184.00	2600	300
D2-04B-1	\$143.00	2600	300	D2-09B-1	\$220.00	2600	300
D2-04BDC1-1	\$171.00	2600	None	D2-09BDC1-1	\$238.00	2600	None
D2-06B-1	\$176.00	2600	300	D2-09BDC2-1	\$238.00	2600	300

Power Consumed		
Device	5V(mA)	24V Auxiliary
CPUs		
D2-250-1	330	0
D2-260	330	0
H2-WPLC*-**	680	0
DC Input Modules		
D2-08ND3	50	0
D2-16ND3-2	100	0
D2-32ND3	25	0
D2-32ND3-2	25	0
AC Input Modules		
D2-08NA-1	50	0
D2-08NA-2	100	0
D2-16NA	100	0
Input Simulator Module		
F2-08SIM	50	0
DC Output Modules		
D2-04TD1	60	20
D2-08TD1	100	0
D2-08TD2	100	0
D2-16TD1-2	200	80
D2-16TD2-2	200	0
F2-16TD1P	70	50
F2-16TD2P	70	50
D2-32TD1	350	0
D2-32TD2	350	0
AC Output Modules		
D2-08TA	250	0
F2-08TA	250	0
D2-12TA	350	0
Relay Output Modules		
D2-04TRS	250	0
D2-08TR	250	0
F2-08TR(S)	670	0
D2-12TR	450	0
Combination In/Out Module		
D2-08CDR	200	0

Power Consumed		
Device	5V(mA)	24V Auxiliary
Analog Modules		
F2-04AD-1	100	5
F2-04AD-2	110	5
F2-08AD-1	100	5
F2-08AD-2	100	5
F2-02DA-1	40	60 (note 1)
F2-02DA-1L	40	70 @ 12V (note 1)
F2-02DA-2	40	60
F2-02DA-2L	40	70 @ 12V
F2-02DAS-1	100	50 / channel
F2-02DAS-2	100	60 / channel
F2-08DA-1	30	50 (note 1)
F2-08DA-2	60	140
F2-4AD2DA	60	80 (note 1)
F2-8AD4DA-1	35	100 (note 1)
F2-8AD4DA-2	35	80 (note 1)
F2-04RTD	90	0
F2-04THM	110	60
Specialty Modules		
D2-CTRINT	50*	0
D2-CM / D2-EM	100/130	0
H2-CTRIO2	275	0
D2-DCM	300	0
F2-DEVNETS	160	0
F2-SDS-1	160	0
H2-EBC100	300	0
H2-EBC-F	640	0
H2-ECOM100	300	0
H2-ECOM-F	640	0
F2-CP128	235	0
Remote I/O		
H2-ERM100, (-F)	300, (-F: 450)	0
Programming Devices		
D2-HPP	200	0

*requires external 5VDC for outputs
Note 1: Add an additional 20 mA per output loop.