

PROFIBUS™ Slave Base Controller

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H2-PBC <---->



Overview

If you are using a PROFIBUS™ controller network, the DL205 I/O sub-system can help reduce the cost of your overall application. The H2-PBC module allows the micro-modular DL205 I/O sub-system to be linked with a PROFIBUS master controller. PROFIBUS is a control bus that provides a common method to connect automation equipment with devices on a single network and significantly reduces hardwiring costs. PROFIBUS provides specifications for information exchanged between nodes, such as controller data associated with low level device and configuration parameters that are individually related to system operations.

How it works

The H2-PBC module is a PROFIBUS slave, which can be plugged into the CPU slot of the DL205 micro-modular family of I/O bases. The module reports all identification data, diagnostic information, and parameters that control the module operation. The H2-PBC module scans and reports all discrete and analog I/O data to a PROFIBUS Master. The 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 a PROFIBUS Master. Using our Profibus I/O sub-system will increase installation flexibility and save on wiring costs. The H2-PBC module supports all DL205 discrete and analog I/O modules and the H2-CTRIO module.

Specifications	
Module Location	CPU slot of any DL205 base
Module Type	CPU device
Maximum Expansion	126 stations, 32 stations per segment, 9 repeaters in a row
Communications	RS-485 PROFIBUS, PROFIBUS-DP. Baud rate selectable from 9.6 Kbaud to 12 Mbaud.
Module Connectors	PROFIBUS 9-pin D-shell, RJ-12 serial (for configuration only*)
Internal Power Consumption	530 mA maximum at 5VDC (supplied by base power supply)
Operating Environment	0°C to 60°C (32°F to 140°F), 5% to 95% humidity (non-condensing)
Manufacturer	Host Automation Products, L.L.C.

* The serial port is used only for configuration of the H2-PBC firmware.

The PROFIBUS Slave Base Controller also offers the following:

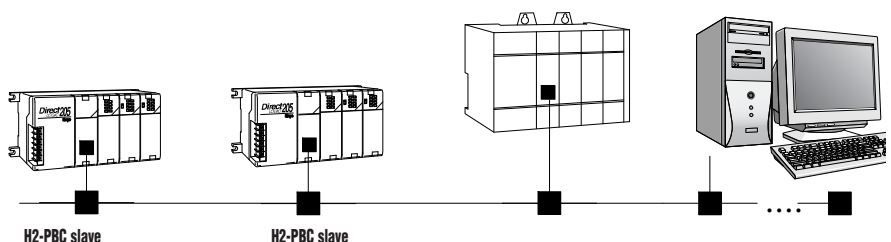
- **Cost-effectiveness:** Hardwiring cost is reduced with a single network for devices.
- **Easy connectivity:** Low-cost installation is easy to implement and maintain.
- **Diagnostics:** Advanced error diagnostics not commonly available in traditional systems are supported.
- **High baud rates:** Baud rates bring response time down to 10ms per device.
- **LED indicators:** Provide quick indication of DL205 power and operating mode.

Please Note:

1. The PROFIBUS Slave Base Controller module H2-PBC is a PTO-certified PROFIBUS-compliant slave I/O interface product. See www.profibus.com for more information.
- 2 For use with Think & Do Software, we recommend the SST PROFIBUS PCI Master Card, part number 5136-PFB-PCI. (AutomationDirect does not provide this interface). See www.mysst.com for more information.



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



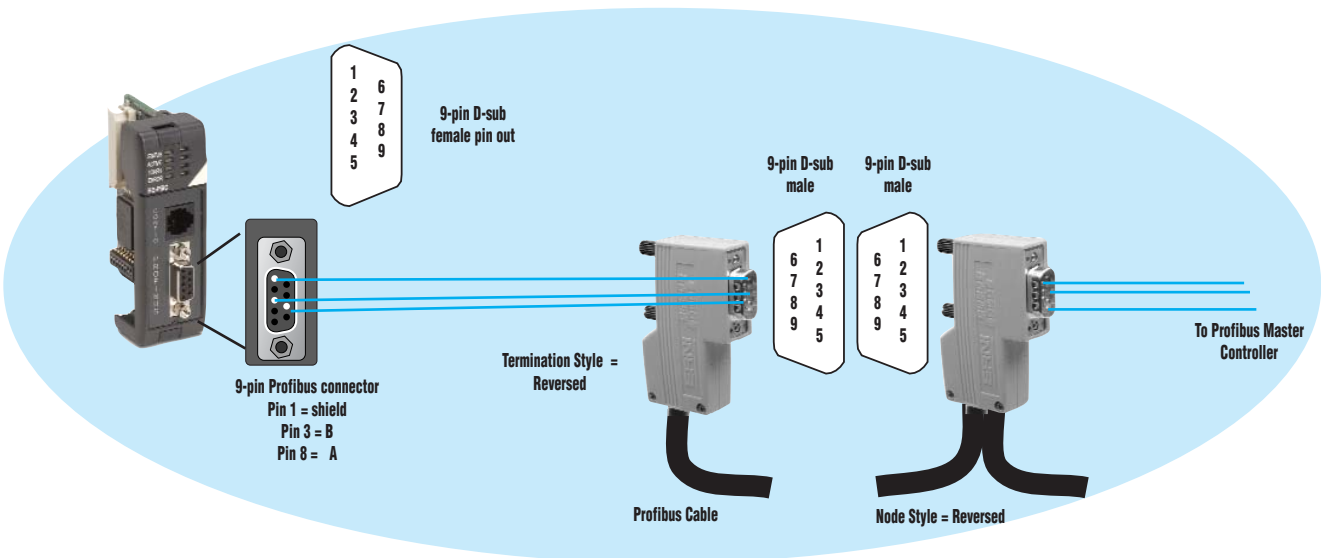
...with your PLC or PC-based PROFIBUS Master.

The D2-INST-M Installation and PLC I/O User Manual covers information about DL205 I/O modules, power budgeting, and installation and wiring. This catalog does not cover CPU-slot controllers.

PROFIBUS Slave Base Controller

Baud	Max. Segment Length		Max. Expansion	
	Feet	Meters	Feet	Meters
9.6 Kbps	3278	1,000	3,2786	1,0000
19.2 Kbps	3278	1,000	3,2786	1,0000
93.75 Kbps	3278	1,000	3,2786	1,0000
187.5 Kbps	3278	1,000	3,2786	1,0000
500 Kbps	1311	400	1,3114	4,000
1.5 Mbps	655	200	6,557	2,000
3 Mbps	327	100	3,270	1,000
6 Mbps	327	100	3,270	1,000
12 Mbps	327	100	3,270	1,000

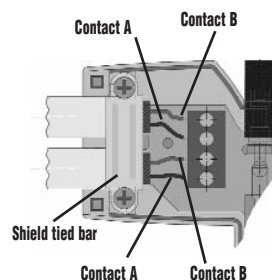
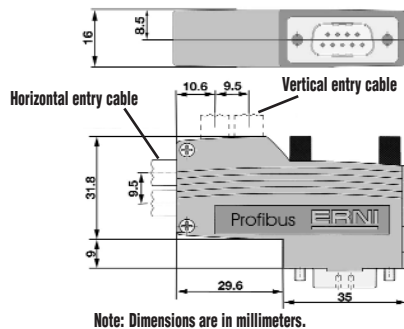
Recommended Cables	
Siemens	6XV1 830 0AH10
Belden	3079A



ERNI ERbic connectors for Profibus networks

ERNI ERbic connectors are available for the Profibus Base Controller. They are available in node and termination reversed styles for DL205 and PC connections, horizontal or vertical cable entry, and termination or daisy-chain configurations.

ERNI ERbic connectors		
Part No.	Description	Device
104577	Profibus-certified reverse node horizontal connector. 9-pin Male D-Sub	H2-PBC or any Profibus ISA/PCI Personal Computer Master/Slave Card
104322	Profibus-certified reversed termination horizontal connector. 9-pin Male D-Sub	H2-PBC or any Profibus ISA/PCI Personal Computer Master/Slave Card



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	<--->	2600	300	D2-06BDC1-1	<--->	2600	None
D2-03BDC1-1	<--->	2600	None	D2-06BDC2-1	<--->	2600	300
D2-04B-1	<--->	2600	300	D2-09B-1	<--->	2600	300
D2-04BDC1-1	<--->	2600	None	D2-09BDC1-1	<--->	2600	None
D2-06B-1	<--->	2600	300	D2-09BDC2-1	<--->	2600	300

Power Consumed		
Device	5V(mA)	24V Auxiliary
CPUs		
D2-230	120	0
D2-240	120	0
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-CTRIO	400	0
D2-DCM	300	0
F2-DEVNETS	160	0
F2-SDS-1	160	0
H2-PBC	530	0
H2-EBC(-F)	450, (640)	0
H2-ECOM(-F)	450, (640)	0
H2-ECOM100	300	0
F2-CP128	235	0
Remote I/O		
H2-ERM(-F)	320, (450)	0
D2-RMSM	200	0
D2-RSSS	150	0
Programming Devices		
D2-HPP	200	0

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