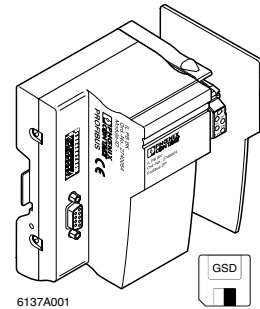


PROFIBUS-DP Fieldbus Coupler



Data Sheet 6137AC01

08/2000



This data sheet is intended to be used in conjunction with the "Configuring and Installing the PROFIBUS-DP Fieldbus Coupler for the INLINE Product Range" User Manual, IL PB BK UM E.

- The coupler can be installed with a data transmission speed of 9.6 kbps to 12 Mbps. The coupler is automatically set to the speed specified by the PROFIBUS master.
- The operating voltage of the coupler is 24 V DC. The operating temperature range is 0°C to 55°C (32°F to 131°F).
- Diagnostics are provided locally by LEDs on the coupler, and on the Inline and Loop 2 modules. In addition, all diagnostic information can be forwarded to the PROFIBUS master via PROFIBUS.

Function

The PROFIBUS coupler is the link between PROFIBUS-DP and the INTERBUS Inline installation system.

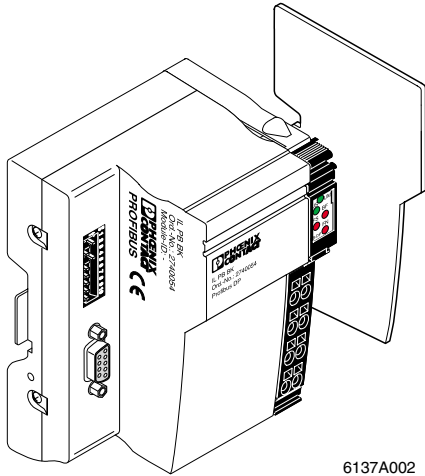
Inline modules and INTERBUS Loop 2 modules can be connected in any position to an existing PROFIBUS-DP using the PROFIBUS coupler. In this way, all the advantages of the installation system created by this module can be used on PROFIBUS.

Features

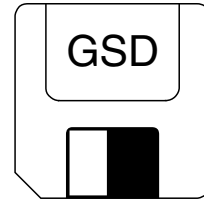
The PROFIBUS coupler has the following properties:

- A maximum of 63 Inline or Loop 2 modules can be connected to PROFIBUS-DP by simply plugging them in side by side via the coupler. The coupler and the Inline modules create a station.
- The sum of all input and output data of the connected modules must not exceed 192 bytes per station.

The intelligent wiring method used in the INTERBUS Inline and Loop 2 modules allows the stations to be constructed easily and quickly because, for example, there is no need for time-consuming wiring of module power supplies. In the simplest case, it is only necessary for the power supply units integrated in the PROFIBUS coupler to be supplied with 24 V DC. They then generate the operating voltage required for the PROFIBUS coupler and the connected Inline modules.



6137A002



6137A003

Figure 1 IL PB BK module with connector and end plate



Please note that the connector is **not** supplied with the terminal. Refer to Ordering Data at the end of this data sheet to order the appropriate connector for your application.

The end plate is supplied with the PROFIBUS-DP Fieldbus Coupler. Place this plate at the end of the Inline station. The end plate does not have any electrical function. It protects the station from ESD pulses and the user from dangerous voltage.

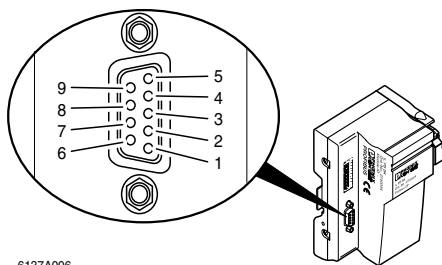
Figure 2 Disk with device database file (GSD)

A disk is provided with the PROFIBUS-DP Fieldbus Coupler. It contains the device database file (GSD) required by PROFIBUS and a bitmap file with an icon of the coupler and connected Inline modules.



An up-to-date device database file can be downloaded from the InfoService on the Internet at www.phoenixcontact.com.

Connecting PROFIBUS



6137A006

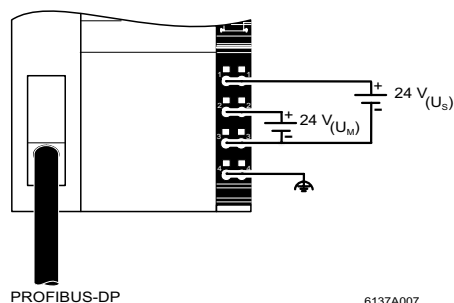
Figure 3 Pin assignment of the 9-pos. D-SUB female connector

Connect PROFIBUS to the fieldbus coupler using a 9-pos. D-SUB connector (e.g., SUBCON-PLUS-PROFIB, Order No. 27 44 34 8). Please refer to the Pin assignment in the following table:

Pin	Assignment
1	Reserved
2	Reserved
3	RxD/TxD-P (+ receive/send data), cable B
4	CNTR-P (control signal for repeater), direction control
5	DGND (reference potential up to 5 V)
6	VP (supply voltage +5 V for terminal resistors)
7	Reserved
8	RxD/TxD-N (– receive/send data), cable B
9	Reserved

Supplying the Operating Voltages

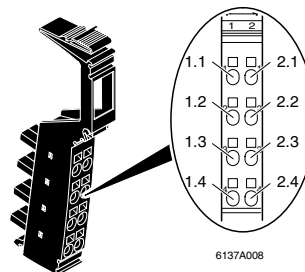
Terminal Points	Remark
1.1, 2.1	Segment supply (+24 V DC)
1.2, 2.2	Main supply, fieldbus coupler supply, communications power and interface supply (+24 V DC)
1.3, 2.3	Reference potential
1.4, 2.4	Functional earth ground (FE)



6137A007

Figure 4 Connection wiring plan for the PROFIBUS coupler

Connect the fieldbus coupler according to Figure 4. You will find the terminal point assignment for the fieldbus coupler in Figure 5.

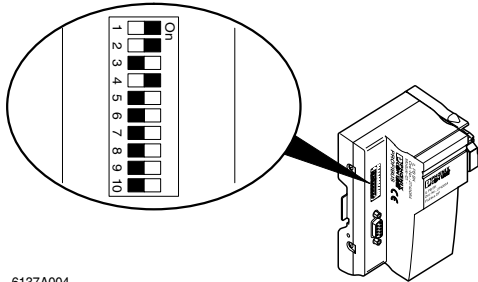


6137A008

Figure 5 PROFIBUS coupler power connector

Hardware Configuration


Configure the hardware on the PROFIBUS coupler using the 10-pos. DIP switch.



6137A004

Figure 6 PROFIBUS coupler DIP switches

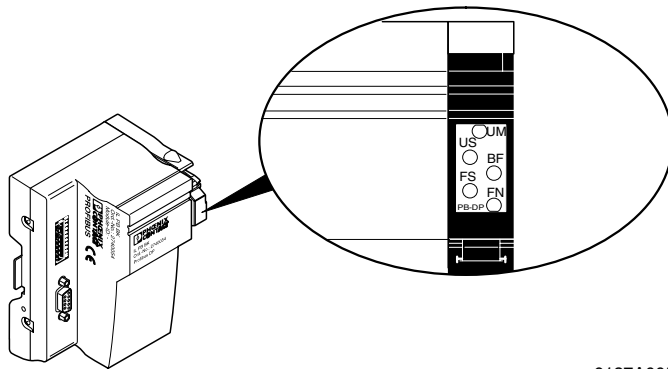
The PROFIBUS address and other PROFIBUS coupler settings can be set using the 10-pos. DIP switch. The meaning of the switches is given in the following table.

DIP Switches	Meaning
1 to 7	PROFIBUS Address in binary format (= 0 to 127 in decimal format) Switch 1 defines the least significant bit (2^0) and switch 7 defines the most significant bit (2^6).
8	Behavior if a data error occurs in the Inline station (local bus error): ON = data transmission is stopped after a number of attempts. OFF = the station constantly attempts to start data transmission.
	If DIP switch 8 is in the ON position, a POWER DOWN/POWER UP must be executed on the fieldbus coupler so that it will restart. There is no automatic restart after the error has been removed.
9 to 10	Reserved, both switches must be in the OFF position.

Line Terminal Resistors

Since PROFIBUS is a serial bus system in a star-tree structure, the individual branches must be terminated with a terminal resistor. The PROFIBUS coupler does not have a resistor of this type. For additional information please refer to your PROFIBUS documents. Phoenix Contact recommends using the PROFIBUS connector SUBCON-PLUS-PROFIB, Order No. 27 44 34 8. This connector has a terminal resistor that can be connected.

Local Diagnostic Indicators on the PROFIBUS Coupler



6137A005

Figure 7 Indicators on the PROFIBUS coupler

LED	Color	Meaning	State	Description of the LED States
UM	Green	U _{Main}	ON	24 V main circuit supply present
			OFF	Main circuit supply not present
US	Green	U _{Segment}	ON	24 V segment circuit supply present
			OFF	Segment circuit supply not present
BF	Red	Bus Fault	ON	No communication on PROFIBUS
			OFF	No error
FS	Red	Failure Select	ON	If FS is on, FN indicates the error type
			OFF	If FS is not on, FN indicates the error number
FN	Red	Failure Number	Flashing	The number of flashing pulses indicates the type of error or the error number, depending on whether FS is on or not
			OFF	No error

Permitted INTERBUS Inline Devices

The following table lists all modules that can currently be operated on the PROFIBUS-DP Fieldbus Coupler, along with their order numbers and designations, as well as their most important features.

Order Designation	Order No.	ID Code dec/hex	Length dec/hex	IN Addr.	OUT Addr.	PCP	Reg. Length	Error Message	Current Consumption	
									U _L	U _{ANA}
Digital Inputs										
IB IL 24 DI 2	27 26 20 1	190 / BE	194 / C2	2 bits	–	–	2 bits	–	35 mA	–
IB IL 24 DI 4	27 26 21 4	190 / BE	65 / 41	4 bits	–	–	4 bits	–	40 mA	–
IB IL 24 DI 8	27 26 22 7	190 / BE	129 / 81	1 byte	–	–	1 byte	–	50 mA	–
IB IL 24 DI 16	27 26 23 0	190 / BE	01 / 01	2 bytes	–	–	2 bytes	–	60 mA	–
IB IL 120 DI 1 *)	28 36 70 6	190 / BE	194 / C2	2 bits	–	–	2 bits	–	25 mA	–
Digital Outputs										
IB IL 24 DO 2-2A	27 26 24 3	189 / BD	194 / C2	–	2 bits	–	2 bits	K, O	35 mA	–
IB IL 24 DO 4	27 26 25 6	189 / BD	65 / 41	–	4 bits	–	4 bits	K, O	40 mA	–
IB IL 24 DO 8	27 26 26 9	189 / BD	129 / 81	–	1 byte	–	1 byte	K, O	60 mA	–
IB IL 24 DO 16	27 26 27 2	189 / BD	01 / 01	–	2 bytes	–	2 bytes	K, O	90 mA	–
IB IL 24/230 DOR/1W	28 36 43 4	189 / BD	194 / C2	–	2 bits	–	2 bits	–	60 mA	–
Analog Inputs										
IB IL AI 2/SF	27 26 28 5	127/7F	02 / 02	4 bytes	4 bytes	–	4 bytes	L, P	38 mA	15 mA
IB IL TEMP 2 UTH	27 27 76 3	127/7F	02 / 02	4 bytes	4 bytes	–	4 bytes	D	43 mA	11 mA
IB IL TEMP 2 RTD	27 26 30 8	127/7F	02 / 02	4 bytes	4 bytes	–	4 bytes	D	43 mA	11 mA
Analog Outputs										
IB IL AO 1/SF	27 26 29 8	125 / 7D	01 / 01	–	2 bytes	–	2 bytes	L	35 mA	25 mA
IB IL AO 1/U/SF	27 27 77 6	125 / 7D	01 / 01	–	2 bytes	–	2 bytes	L	35 mA	25 mA
IB IL AO 2U/B/P	27 32 73 2	91 / 5B	02 / 02	4 bytes	4 bytes	–	4 bytes	L	35 mA	28 mA
Special Function Modules										
IB IL CNT	28 36 33 7	191 / BF	02 / 02	4 bytes	4 bytes	–	4 bytes	K, A	40 mA	–
IB IL SSI	28 36 34 0	191 / BF	02 / 02	4 bytes	4 bytes	–	4 bytes	K, A	110 mA	–
IB IL INC	28 36 32 4	191 / BF	02 / 02	4 bytes	4 bytes	–	4 bytes	K, A	110 mA	–

Order Designation	Order No.	ID Code dec/hex	Length dec/hex	IN Addr.	OUT Addr.	PCP	Reg. Length	Error Message	Current Consumption	
									U _L	U _{ANA}
IB IL 24 L2	27 27 88 6	–	–	–	–	–	–	–	85 mA	–
Power Electronics										
IB IL 24 TC	27 27 41 7	190 / BE	65 / 41	4 bits	---	---	4 bits	---	60 mA	---
IB IL 400 MLR 1-8A	27 27 36 5	191 / BF	129 / 81	1 byte	1 byte	---	1 byte	ST	50 mA	---
IB IL 400 ELR 1-3A	27 27 35 2	191 / BF	129 / 81	1 byte	1 byte	---	1 byte	ST	45 mA	---
IB IL 400 ELR R-3A	27 27 37 8	191 / BF	129 / 81	1 byte	1 byte	---	1 byte	ST	45 mA	---
Supply Terminals										
IB IL 24 PWR IN	27 26 31 1	–	–	–	–	–	–	–	–	–
IB IL 24 PWR IN/F	27 27 90 9	–	–	–	–	–	–	–	–	–
IB IL 24 PWR IN/F-D	28 36 66 7	190 / BE	194 / C2	2 bits	–	–	2 bits	S	25 mA	–
IB IL 24 SEG	27 26 32 4	–	–	–	–	–	–	–	–	–
IB IL 24 SEG/F	27 27 74 7	–	–	–	–	–	–	–	–	–
IB IL 24 SEG/F-D	28 36 68 3	190 / BE	194 / C2	2 bits	–	–	2 bits	SP	25 mA	–
IB IL 24 SEG-ELF	27 27 78 9	190 / BE	194 / C2	2 bits	–	–	2 bits	K	30 mA	–

The abbreviations in the "Error Message" column are explained on page 9.



Inline special function modules, which only support the parameter channel (PCP) and cannot be operated via the process data channel (presently only the IB IL RS-232 module) are **not** permitted on the fieldbus coupler.

Permitted INTERBUS Loop 2 Devices

The following table lists all modules that can currently be operated on the PROFIBUS-DP Fieldbus Coupler, along with their order numbers and designations, as well as their most important features.

Order Designation	Order No.	ID Code dec/hex	Length dec/hex	IN Addr.	OUT Addr.	PCP	Reg. Length	Error Message	Current U _{SL} *)
Loop 2 Digital Inputs									
IB L2 BOX 24 DI 4/4 M12	27 31 98 2	178 / B2	65 / 41	4 bits	–	–	4 bits	A, K, T, U	40 mA
IB L2 BOX 24 DI 4/4 M12-D	27 32 76 1	178 / B2	65 / 41	4 bits	–	–	4 bits	A, K, T, U	40 mA
IB L2 BOX 24 DI 8/4 M12	27 31 99 5	178 / B2	129 / 81	8 bits	–	–	8 bits	A, K, T, U	40 mA
Loop 2 Digital Outputs									
IB L2 BOX 24 DO 4/4 M12 2A	27 32 34 7	177 / B1	65 / 41	–	4 bits	–	4 bits	K, T, U	40 mA
IB L2 BOX 24 DO 4/4 M12 2A-D	27 32 77 4	177 / B1	65 / 41	–	4 bits	–	4 bits	K, T, U	40 mA
Loop 2 Digital Inputs and Outputs									
IB L2 BOX 24 DIO 2/2/4 M12 2A	27 32 00 4	179 / B3	65 / 41	2 bits	2 bits	–	4 bits	A, K, T, U	40 mA
IB L2 BOX 24 DIO 2/2/4 M12 2A-D	27 32 78 7	179 / B3	65 / 41	2 bits	2 bits	–	4 bits	A, K, T, U	40 mA
Loop 2 Analog Inputs									
IB L2 BOX AI 2/2 M12	27 31 90 8	115 / 73	02 / 02	4 bytes	4 bytes	–	4 bytes	A, K, T, U	110 mA
IB L2 BOX TEMP 2/2 M12	27 31 92 4	115 / 73	02 / 02	4 bytes	4 bytes	–	4 bytes	A, H, D, K	75 mA
Loop 2 Analog Outputs									
IB L2 BOX AO 1/2/I M12	27 31 93 7	113 / 71	01 / 01	–	2 bytes	–	2 bytes	T, U	70 mA
IB L2 BOX AO 1/2/U M12	27 31 94 0	113 / 71	01 / 01	–	2 bytes	–	2 bytes	T, U	90 mA
Loop 2 Motor Starter									
IB L2 IP 500 MLR 4-6A	27 32 38 9	179 / B3	129 / 81	1 byte	1 byte	–	1 byte	M, U, T, A	40 mA
Loop 2 Supply									
IB L2 BOX 24 PWR IN 4/4 M12	27 26 31 1	178 / B2	65 / 41	4 bits	–	–	4 bits	A, K, T, U	40 mA
IB L2 BOX 24 PWR IN 4/4 M12-D	27 32 79 0	178 / B2	65 / 41	4 bits	–	–	4 bits	A, K, T, U	40 mA

The abbreviations in the "Error Message" column are explained on page 9.

*) U_{SL}: Supply voltage for Loop 2 devices: (maximum total current at U_{SL}: 1,8 A).

Explanation of Error Messages

Abbreviation	Meaning
K	Indicates short-circuit and overload of an output or an initiator supply
A	Indicates failure of the Loop main power, segment voltage or sensor supply
S	Indicates faulty fuse
O	Indicates overload of an output
P	Indicates failure of the internal supply voltage
D	Indicates open circuit in TC operation
L	Indicates breakdown or dropping of communications power U_L
T	Temperature warning protocol chip
U	Loop undervoltage
H	Hardware fault
M	Motor overtemperature
ST	Indicates selftest error

PROFIBUS Standard and Device-Related Diagnostics


Error Type	Meaning
1	Parameter error on PROFIBUS (SET_PRM telegram)
2	Configuration error on PROFIBUS (CHK_CFG telegram) Detailed information about the PROFIBUS configuration error is represented by 11 different error numbers.
3	Configuration error in the INTERBUS Inline Station Detailed information about the INTERBUS Inline station configuration error is represented by 7 different error numbers.
4	INTERBUS error within the station Detailed information about INTERBUS errors within the station is represented by 6 different error numbers.
5	Module error

Technical Data

General Data	
Order Designation PROFIBUS-DP Fieldbus Coupler	IL PB BK
Order Number PROFIBUS-DP Fieldbus Coupler	27 40 05 4
Order Designation power connector	IB IL SCN-PWR IN-CP
Order Number power connector	27 27 63 7
Housing dimensions (width x height x depth)	91 mm x 120 mm x 71.5 mm (3.583 in. x 4.724 in. x 2.815 in.)
Weight	210 g (without connector)
Degree of protection	IP20 according to IEC 60529
Class of protection	Class 3, according to VDE 0106, IEC 60536


System Data	
Number of devices per station	63, maximum
Sum of all I/O data per station	192 bytes, maximum
Maximum fieldbus coupler current for supplying the I/O module logic	2 A at U_L
Maximum additional current for supplying the analog terminals	0.5 A at U_{ANA}

PROFIBUS-DP Interface
Copper cable (RS-485), connected via SUB-D shield connector; supply electrically isolated, shielding directly connected with functional earth ground.



24 V Main Supply U_M	
Connection method	Spring-clamp terminals
Recommended cable lengths	30 m (98.425 ft.), maximum; do not route cable through outdoor areas
Voltage continuation	Through potential routing
Nominal value	24 V DC
Tolerance	-15% / +20% (according to EN 61 13 1-2)
Ripple	±5%
Permissible range	19.2 V to 30 V (ripple included)
Minimum current consumption at nominal voltage	0.1 A DC (no-load operation, i.e., incoming PROFIBUS plugged in, no Inline devices connected)
Maximum current consumption at nominal voltage	1.25 A DC, consists of: 0.75 A DC for communications power 0.5 A DC for analog voltage supply
Safety devices	
Overvoltage	Yes
Polarity reversal	Yes
	Provide an external fuse for the 24 V area. This 24 V area must be fused externally. The power supply unit must be able to supply 4 times the nominal current of the external circuit breaker, to ensure that it trips in the event of an error.

24 V Segment Supply U_S	
Connection method	Spring-clamp terminals
Recommended cable lengths	30 m (98.425 ft.), maximum; do not route cable through outdoor areas
Voltage continuation	Through potential routing
Nominal value	24 V DC

24 V Segment Supply U_S

Tolerance	-15% / +20% (according to EN 61 13 1-2)
Ripple	±5%
Permissible range	19.2 V to 30 V (ripple included)
Current carrying capacity	8 A, maximum
Safety devices	
Overvoltage	Yes
Polarity reversal	Yes
	Provide an external fuse for the 24 V area. This 24 V area must be fused externally. The power supply unit must be able to supply 4 times the nominal current of the external circuit breaker, to ensure that it trips in the event of an error.

Ambient Conditions

Ambient temperature (operation)	0°C to +55°C (32°F to + 131°F)
Ambient temperature (storage)	-25°C to +85°C (-13°F to + 185°F)
Humidity (operation)	75%, on average, 85%, occasionally
	In the range from 0°C to +55°C (32°F to 131°F) appropriate measures against increased humidity (> 85%) must be taken.
Humidity (storage)	75%, on average, 85%, occasionally
	For a short period, slight condensation may appear on the housing if, for example, the terminal is brought into a closed room from a vehicle.
Air pressure (operation)	80 kPa to 106 kPa (up to 2,000 m [6562 ft.] above sea level)
Air pressure (storage/transport)	70 kPa to 106 kPa (up to 3000 m [9483 ft.] above sea level)

Conformance With EMC Directive 89/336/EEC		
Noise Immunity Test According to EN 50082-2		
Electrostatic discharge (ESD)	EN 61000-4-2/ IEC 61000-4-2	Criterion B 6 kV contact discharge 8 kV air discharge
Electromagnetic fields	EN 61000-4-3 IEC 61000-4-3	Criterion A Field strength: 10 V/m
Fast transients (burst)	EN 61000-4-4/ IEC 61000-4-4	Criterion A All interfaces: 1 kV
Surge voltage	EN 61000-4-5/ IEC 61000-4-5	Criterion B DC supply lines: 0.5 kV / 1 kV (symmetrical/asymmetrical) Fieldbus cable shielding 1 kV
Conducted interference	EN 61000-4-6 IEC 61000-4-6	Criterion A Test voltage 10 V
Noise Emission Test According to EN 50081-2		
Noise emission of housing	EN 55011	Class A

Ordering Data

Ordering Data for Operable Inline Modules

Description	Order Designation	Order No.
PROFIBUS Coupler		
PROFIBUS coupler (with end plate and disk with GSD file)	IL PB BK	27 40 05 4
Power connector for PROFIBUS coupler, neighboring terminal points internally jumpered	IB IL SCN-PWR IN-CP	27 27 63 7
Supply Terminals		
Power terminal without fuse	IB IL 24 PWR IN	27 26 31 1
Power terminal without fuse	IB IL 120 PWR IN	27 31 70 4
Power terminal with fuse	IB IL 24 PWR IN/F	27 27 90 9
Power terminal with fuse and diagnostics	IB IL 24 PWR IN/F-D	28 36 66 7
Segment terminal without fuse	IB IL 24 SEG	27 26 32 4
Segment terminal with fuse	IB IL 24 SEG/F	27 27 74 7
Segment terminal with fuse and diagnostics	IB IL 24 SEG/F-D	28 36 68 3
Segment terminal with electronic fuse	IB IL 24 SEG-ELF	27 27 78 9
Digital Inputs		
Module with two digital inputs	IB IL 24 DI 2	27 26 20 1
Module with four digital inputs	IB IL 24 DI 4	27 26 21 4
Module with 8 digital inputs	IB IL 24 DI 8	27 26 22 7
Module with 16 digital inputs	IB IL 24 DI 16	27 26 23 0
Module with one digital input for 120 V AC signals	IB IL 120 DI 1	28 36 70 6

Description	Order Designation	Order No.
Digital Outputs		
Module with two digital outputs	IB IL 24 DO 2-2A	27 26 24 3
Module with four digital outputs	IB IL 24 DO 4	27 26 25 6
Module with 8 digital outputs	IB IL 24 DO 8	27 26 26 9
Module with 16 digital outputs	IB IL 24 DO 16	27 26 27 2
Module with one digital SPDT relay output, maximum contact voltage 230 V AC	IB IL 24/230 DOR/1W	28 36 43 4
Module with one digital output	IB IL DO 1 AC	28 36 74 8
Analog Inputs		
Module with two analog current or voltage inputs	IB IL AI 2/SF	27 26 28 5
Module with two analog temperature signal inputs	IB IL Temp 2 UTH	27 27 76 3
Module for connecting two analog temperature shunts	IB IL Temp 2 RTD	27 26 30 8
Analog Outputs		
Module with one analog current or voltage output	IB IL AO 1/SF	27 26 29 8
Module with one analog voltage output	IB IL AO 1/U/SF	27 27 77 6
Module with two analog voltage outputs	IB IL AO 2U/B/P	27 32 73 2
Special Function Modules		
Counter module with switching output	IB IL CNT	28 36 33 7
Positioning module for connecting absolute encoders	IB IL SSI	28 36 34 0
Positioning module for connecting incremental encoders	IB IL INC	28 36 32 4
INTERBUS Loop 2 branch terminal for integrating an INTERBUS Loop 2 system in an Inline station	IB IL 24 L2	27 27 88 6

Description	Order Designation	Order No.
Power Electronics		
Thermistor terminal for protecting motors	IB IL 24 TC	27 27 41 7
Mechanical motor starter	IB IL 400 MLR 1-8A	27 27 36 5
Electronic motor starter	IB IL 400 ELR 1-3A	27 27 35 2
Electronic motor starter	IB IL 400 ELR R-3A	27 27 37 8

Ordering Data for Operable Loop 2 Modules

Description	Order Designation	Order No.
Loop 2 Digital Inputs		
Input module four digital inputs	IB L2 BOX 24 DI 4/4 M12	27 31 98 2
Input module four digital inputs *)	IB L2 BOX 24 DI 4/4 M12-D	27 32 76 1
Input module eight digital inputs	IB L2 BOX 24 DI 8/4 M12	27 31 99 5
Loop 2 Digital Outputs		
Output module four digital inputs	IB L2 BOX 24 DO 4/4 M12 2A	27 32 34 7
Output module four digital inputs*)	IB L2 BOX 24 DO 4/4 M12 2A-D	27 32 77 4
Loop 2 Digital Inputs and Outputs		
Input/output module two digital inputs, two digital outputs	IB L2 BOX 24 DIO 2/2/4 M12 2A	27 32 00 4
Input/output module two digital inputs, two digital outputs *)	IB L2 BOX 24 DIO 2/2/4 M12 2A-D	27 32 78 7
Loop 2 Analog Inputs		
Input module two analog inputs	IB L2 BOX AI 2/2 M12	27 31 90 8
Input module for detecting two analog temperature signals	IB L2 BOX TEMP 2/2 M12	27 31 92 4

Description	Order Designation	Order No.
Loop 2 Analog Outputs		
Analog current signal output module	IB L2 BOX AO 1/2/I M12	27 31 93 7
Analog voltage signal output module	IB L2 BOX AO 1/2/U M12	27 31 94 0
Loop 2 Motor Starter		
Motor Starter	IB L2 IP 500 MLR 4-6A	27 32 38 9
Loop 2 Supply		
Input and power module four digital inputs	IB L2 BOX 24 PWR IN 4/4 M12	27 26 31 1
Input and power module four digital inputs*)	IB L2 BOX 24 PWR IN 4/4 M12-D	27 32 79 0

*) The actuator and sensor connector is double-assigned for these modules.



The variety of Inline and Loop 2 modules that can be operated on the PROFIBUS coupler will continue to increase. Before installing a new module that is not listed here, find out if it can be operated on the PROFIBUS-DP Fieldbus Coupler.

Ordering Data for Accessories

Description	Order Designation	Order No.
Coding profile (100 pcs./package)	CP-MSTB see "COMBICON" catalog	17 34 63 4
Zack "Quick" marker strips to label the terminals	ZB 6 ... see "CLIPLINE" catalog	
DIN EN 50022 mounting rail, 2 meters (6.562 ft.)	NS 35/7,5, perforated NS 35/7,5, unperforated	08 01 73 3 08 01 68 1
End clamp	CLIPFIX 35	30 22 21 8
Universal protective conductor terminal	USLKG 5	04 41 50 4
Screwdriver according to DIN 5264, blade width 3.5 mm (0.138 in.)	SZF 1 - 0,6 x 3,5	12 04 51 7

Ordering Data for Connectors *)

Description	Order Designation	Order No.
Connector set for IB IL AO1/SF	IB IL AO/CNT-PLSET	27 32 66 4
Connector for Inline modules, 2 signals, 4-wire connection method	IB IL SCN-8	27 26 33 7
Connector for Inline modules, 2 signals, 4-wire connection method, color print	IB IL SCN-8-CP	27 27 60 8
Connector for Inline modules, for signals with shielded cables (for example, analog signals with shield clamp)	IB IL SCN-6 SHIELD	27 26 35 3
Connector for Inline modules, 4 signals, 3-wire connection method	IB IL SCN-12	27 26 34 0
Connector for Inline input modules, 4 signals, 3-wire connection method, with color print	IB IL SCN-12-ICP	27 27 61 1
Connector for Inline output modules, 4 signals, 3-wire connection method	IB IL SCN-12-OCF	27 27 62 4
Power connector for Inline modules, neighboring terminal points jumpered internally	IB IL SCN-PWR IN	27 27 46 2
Power connector for Inline modules and PROFIBUS coupler, neighboring terminal points jumpered internally	IB IL SCN-PWR IN-CP	27 27 63 7
Labeling field, can be snapped in, 2-slot terminal, 10 pcs./package	IB IL FIELD 2	27 27 50 1
Labeling field, can be snapped in, 8-slot terminal, 10 pcs./package	IB IL FIELD 8	27 27 51 5

*) Ordering Data for 120 V AC connectors on request

Ordering Data for Interface Converters Connected in Series and SUB-D Connectors

Description	Order Designation	Order No.
T coupler for converting RS-485 PROFIBUS to two optical fiber cables (glass fiber); 24 V DC current consumption: 110 mA, maximum	PSM-EG-PROFIB/FO-T/G	27 61 43 1
T coupler for converting RS-485 PROFIBUS to two optical fiber cables (HCS/polymer fiber); 24 V DC current consumption: 110 mA, maximum	PSM-EG-PROFIB/FO-T/K	27 61 12 7
Terminal device for converting RS-485 PROFIBUS to one optical fiber cable (glass fiber); 24 V DC current consumption: 110 mA, maximum	PSM-EG-PROFIB/FO-E/G	27 44 36 4
Terminal device for converting RS-485 PROFIBUS to one optical fiber cable (HCS/polymer fiber); 24 V DC current consumption: 110 mA, maximum	PSM-EG-RS485W2/FO-E/K	27 61 48 6
Repeater for electrical isolation and increases in distance with 3-way isolation; 24 V DC current consumption: 90 mA, approximately	PSM-ME-RS485/RS485-P	27 44 42 9
SUB-D connector, 9-pos. with two cable feeds for PROFIBUS up to 12 Mbps (terminal resistor can be connected using rotary switch)	SUBCON-PLUS-PROFIB	27 44 34 8

Ordering Data for Power Supplies

Description	Order Designation	Order No.
Compact power supply, primary clock, 1 A	QUINT-PS-230AC/24DC/1	29 39 44 1
Compact power supply, primary clock, 1 A	QUINT-PS-120AC/24DC/1	29 39 24 7
Compact power supply, primary clock, 2.5 A with filter	QUINT-PS-230AC/24DC/2,5/F	29 39 35 7
Compact power supply, primary clock, 2.5 A with filter	QUINT-PS-120AC/24DC/2,5/F	29 39 25 0

Description	Order Designation	Order No.
Compact power supply, primary clock, 5 A with filter	QUINT-PS-230AC/24DC/5/F	29 39 36 0
Compact power supply, primary clock, 5 A with filter	QUINT-PS-120AC/24DC/5/F	29 39 26 3
Compact power supply, primary clock, 10 A with filter	QUINT-PS-230AC/24DC/10/F	29 39 37 3
Compact power supply, primary clock, 10 A with filter	QUINT-PS-120AC/24DC/10/F	29 39 27 6
Compact power supply, primary clock, 20 A with filter	QUINT-PS-3x400AC/24DC/20/F	29 39 56 4
Compact power supply, primary clock, 30 A with filter	QUINT-PS-3x400AC/24DC/30/F	29 39 39 9
Compact power supply, primary clock, 40 A with filter	QUINT-PS-3x400AC/24DC/40/F	29 39 94 6
Compact power supply, primary clock, 650 mA, MCR housing	MCR-PS-230AC/24DC/650	28 11 95 4
Compact power supply, primary clock, 650 mA, MCR housing	MCR-PS-120AC/24DC/650	28 11 96 7


Ordering Data for Documentation


Description	Order Designation	Order No.
"Configuring and Installing the PROFIBUS-DP Fieldbus Coupler for the Inline Product Range" User Manual (German)	IL PB BK UM	26 98 09 6
"Configuring and Installing the PROFIBUS-DP Fieldbus Coupler for the Inline Product Range" User Manual (English)	IL PB BK UM E	26 98 10 6
CD-ROM with all Inline, Loop 2 and other data sheets	CD IBS DB ELDOC	27 45 60 6
"Configuring and Installing the INTERBUS Loop 2" User Manual (German)	IB L2 SYS PRO UM	27 43 45 9
"Configuring and Installing the INTERBUS Loop 2" User Manual (English)	IB L2 SYS PRO UM E	27 43 49 1




All documentation is also available on the Internet at <http://www.phoenixcontact.com>.

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