

ERbic Profibus



Profibus is the most widely used field bus. It is promoted by Siemens and by organized, interested and committed manufacturers and users in the PNO (Profibus user organization). The IP 20 interface on the device side is standardized as a 9-pin D-Sub female connector. The max. data transmission rate is 12 Mbit/s. The cable is a shielded twisted pair conductor.

The cable sheath is violet and the signal cores are green (A) and red (B).

With its comprehensive program, ERNI provides customers with a wide variety of options.

Particular emphasis should be placed on the different termination technologies, from the traditional screw terminal to the cage clamp terminal to the IDC terminal.

Electrical and mechanical characteristics

Interface connector	D-Sub, 9-pin, male
Cable termination	2 x horizontal, 2 x vertical, MAX: 2 x axial 1 cable outlet can be sealed with blanking plate
Cable diameter	4.5 mm (0.177") – 8.0 mm (0.315")
Cross section of individual conductor	Screw terminal: solid max. 1.5 mm ² ; stranded max. 1.0 mm ² IDC terminal: solid \varnothing 0.64 mm Cage-clamp terminal: 0.08 - 0.5 mm ² (0.75 mm ²)
Termination type	Screw terminal, IDC terminal, cage-clamp terminal
Data transmission rate	According to bus specification, 12 MBit/s
Temperature range	-20 °C – +70 °C
Permissible humidity	Max. 75 % at + 25 °C, non-condensing
Protection class	IP 40, MAX: IP 30
Housing material	Thermoplast UL94V-1, MAX: ZnAl, galvanized
Sub-D screw	#4/40 UNC, knurled with cross-head
UL approval	UL E84703 *
CE marking	ERbic connectors are passive components and do not need to be identified with the CE marking according to EU directives.

* Due to continuous advancement, it is possible that the UL approval of a new version may not have been completed at the time of going to press.

Pin configuration

Terminal	D-Sub Pin	Signal
B (1)	3	RxD/TxD-P
A (2)	8	RxD/TxD-N
B (3)	3	RxD/TxD-P
A (4)	8	RxD/TxD-N
- 5	GND	
- 6	VP (+5V)	



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Ordering Information

ERbic Type	Color	Cable outlet	D-Sub 9-pin	Screw	Preferred ¹⁾	Part Number
Profibus with external switch and IDC terminal						
Profibus Standard	slat gray	horizontal	Male	#4/40 UNC	Yes	144037
Profibus reversed	slat gray	horizontal	Male	#4/40 UNC	Yes	144176
Profibus with service/PU connection	slat gray	horizontal	Male and Female (PU connection)	#4/40 UNC	Yes	144536
Profibus with service/PU connection, reversed	slat gray	horizontal	Male and Female (PU connection)	#4/40 UNC	Yes	154842
Profibus Standard	slat gray	vertical	Male	#4/40 UNC	Yes	134278
Profibus with service/PU connection	slat gray	vertical	Male and Female (PU connection)	#4/40 UNC	Yes	154825
Profibus with external switch and cage clamp						
Profibus Standard	slat gray	horizontal	Male	#4/40 UNC	Yes	174048
Profibus with service/PU connection	slat gray	horizontal	Male	#4/40 UNC	Yes	174049
Profibus with external switch, IDC terminal and metal housing						
Profibus MAX Standard	silver	axial	Male	#4/40 UNC	Yes	134928
Profibus with external switch and screw terminal						
Profibus Standard	slat gray	horizontal	Male	#4/40 UNC	Yes	134728
Profibus with service/PU connection	slat gray	horizontal	Male and Female (PU connection)	#4/40 UNC	Yes	144475

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ERbic Type	Color	Cable outlet	D-Sub 9-pin	Screw	Preferred ¹⁾	Part Number
Profibus node with screw terminal						
Profibus Standard	slat gray	horizontal	Male	#4/40 UNC	Yes	103648
Profibus reversed	slat gray	horizontal	Male	#4/40 UNC		104577
Profibus with service/PU connection	slat gray	horizontal	Male and Female (PU connection)	#4/40 UNC	Yes	103663
Profibus Standard	slat gray	vertical	Male	#4/40 UNC	Yes	103658
Profibus reversed	slat gray	vertical	Male	#4/40 UNC		114592
Profibus with service/PU connection	slat gray	vertical	Male and Female (PU connection)	#4/40 UNC		134124
Profibus termination with screw terminal						
Profibus Standard	yellow	horizontal	Male	#4/40 UNC	Yes	103649
Profibus reversed	yellow	horizontal	Male	#4/40 UNC		104322
Profibus with service/PU connection	yellow	horizontal	Male and Female (PU connection)	#4/40 UNC	Yes	104329
Profibus Standard	yellow	vertical	Male	#4/40 UNC	Yes	103659
Profibus reversed	yellow	vertical	Male	#4/40 UNC		134395
Profibus with service/PU connection	yellow	vertical	Male and Female (PU connection)	#4/40 UNC		123614

Packaging: Single box with enclosed assembly instructions.

1) Preferred types are generally available from stock.