

ILB PB 24 DI16 DO16 - I/O module



2862411

<https://www.phoenixcontact.com/us/products/2862411>

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Inline, Block IO, PROFIBUS DP, D-SUB-9 female connector, Digital inputs: 16, 24 V DC, connection technology: 3-conductor, Digital outputs: 16, 24 V DC, connection technology: 3-conductor, degree of protection: IP20, including Inline connector



Your advantages

- 16 digital inputs
- 16 digital outputs
- Connection of sensors in 2- and 3-conductor technology
- Connection of actuators in 2- and 3-conductor technology
- Maximum permissible load current per sensor: 125 mA
- Nominal current per output: 500 mA
- Diagnostic and status indicators

Commercial data

Item number	2862411
Packing unit	1 pc
Sales key	DR01
Product key	DRI1A2
GTIN	4017918923884
Weight per piece (including packing)	515.8 g
Weight per piece (excluding packing)	515.8 g
Customs tariff number	85389091
Country of origin	DE

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Technical data

Dimensions

Dimensional drawing	
Width	156 mm
Height	141 mm
Depth	57 mm
Note on dimensions	Specifications with connectors

Notes

Utilization restriction

CCcex note	Use in potentially explosive areas is not permitted in China.
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Interfaces

PROFIBUS DP

Connection method	D-SUB-9 female connector
Number of positions	9
Transmission speed	9.6 kbps ... 12 Mbps

Input data

Digital:

Input name	Digital inputs
Description of the input	IEC 61131-2 type 1
Number of inputs	16
Connection method	Spring-cage connection
Connection technology	3-conductor
Input voltage	24 V DC
Input voltage range "0" signal	-30 V DC ... 5 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Nominal input voltage U_{IN}	24 V DC
Nominal input current at U_{IN}	5 mA
Total sensor current	max. 2 A
Typical response time	approx. 500 μ s
Protective circuit	Short-circuit protection, overload protection of the sensor supply

Output data

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Digital:

Output name	Digital outputs
Connection method	Spring-cage connection
Connection technology	3-conductor
Number of outputs	16
Protective circuit	Short-circuit and overload protection
Output voltage	24 V DC
Maximum output current per channel	500 mA
Maximum output current per module / terminal block	8 A
Maximum output current per module	8 A
Nominal output voltage	24 V DC
Nominal load, inductive	12 VA
Nominal load, lamp	12 W
Nominal load, ohmic	12 W

Product properties

Product type	I/O component
Product family	Inline
Type	Block design
Scope of supply	including Inline connector
No. of channels	32
Diagnostics messages	Short-circuit or overload of the digital outputs Message in the diagnostics register
	Short-circuit, sensor supply Message in the diagnostics register
	Undervoltage Power supply for sensors Message in the diagnostics register

Electrical properties

Potentials: Communications power (U_L)

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	max. 8 A
Current draw	70 mA

Potentials

Power supply	max. 8 A
Current draw	2 A

Potentials: Power supply to the actuator (U_{A1})

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	max. 8 A
Current draw	4 A

Potentials: Power supply to the actuator (U_{A2})

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Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	max. 8 A
Current draw	4 A

Potentials

Power supply	max. 8 A
Current draw	70 mA

Potentials

Power supply	max. 8 A
Current draw	2 A

Electrical isolation/isolation of the voltage ranges

Test voltage: I/Os / PROFIBUS	500 V AC, 50 Hz, 1 min
Test voltage: I/O area / FE	500 V AC, 50 Hz, 1 min
Test voltage: PROFIBUS / FE	500 V AC, 50 Hz, 1 min

Connection data

Connection technology

Connection name	Inline connector
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Inline connector

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm ² ... 1.5 mm ²
Conductor cross-section, flexible	0.08 mm ² ... 1.5 mm ²
Conductor cross-section AWG	28 ... 16
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP20
Air pressure (operation)	80 kPa ... 108 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (up to 3500 m above sea level)
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	85 % (non-condensing)
Permissible humidity (storage/transport)	95 % (non-condensing)

Mechanical test

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	25g

Standards and regulations

Noise emission	Industrial environment
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Mounting

Mounting type	NS 35/7,5
	DIN rail mounting

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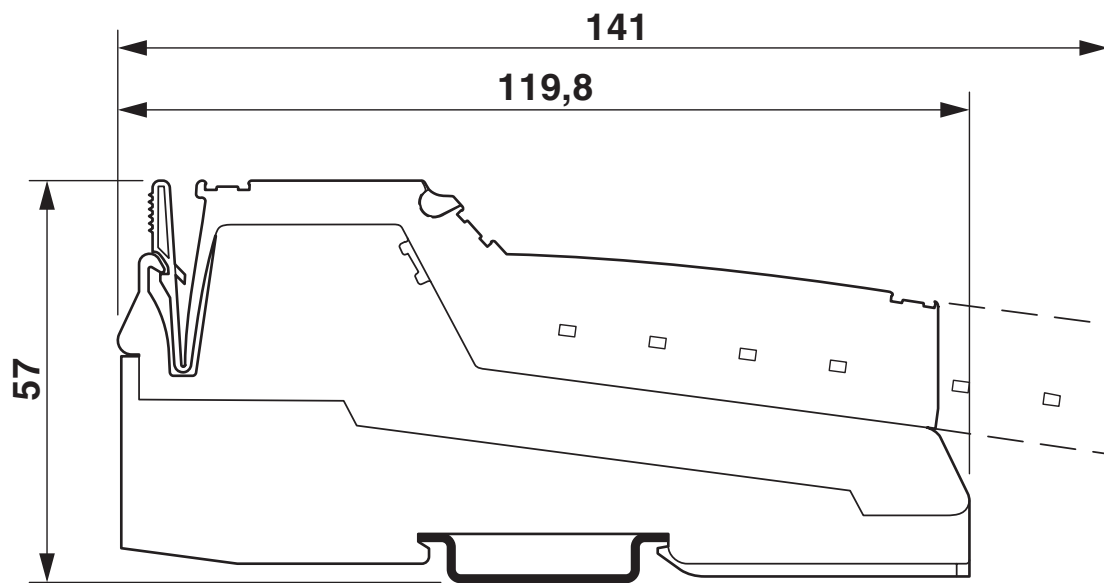


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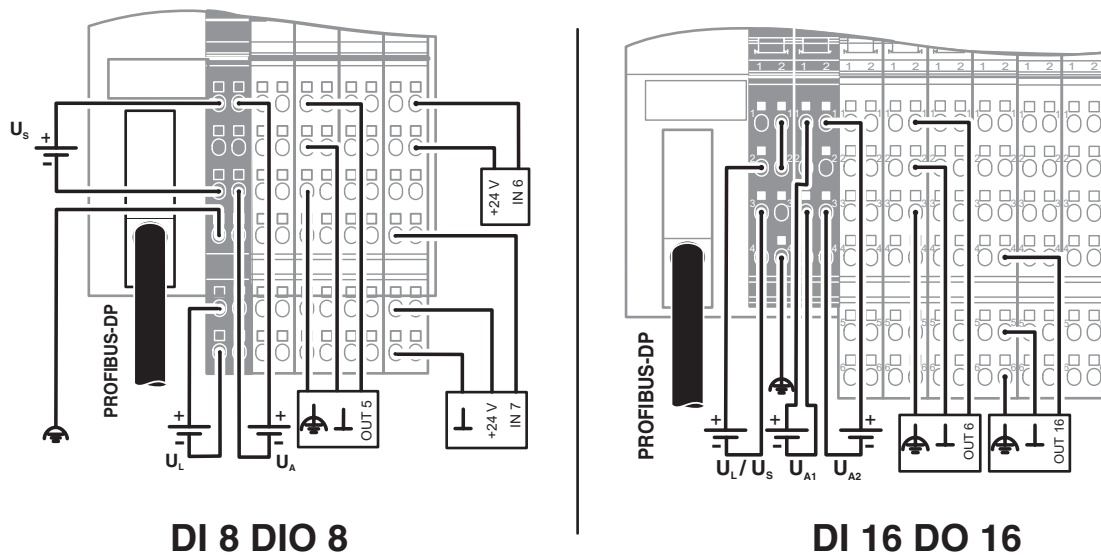
Drawings

Dimensional drawing

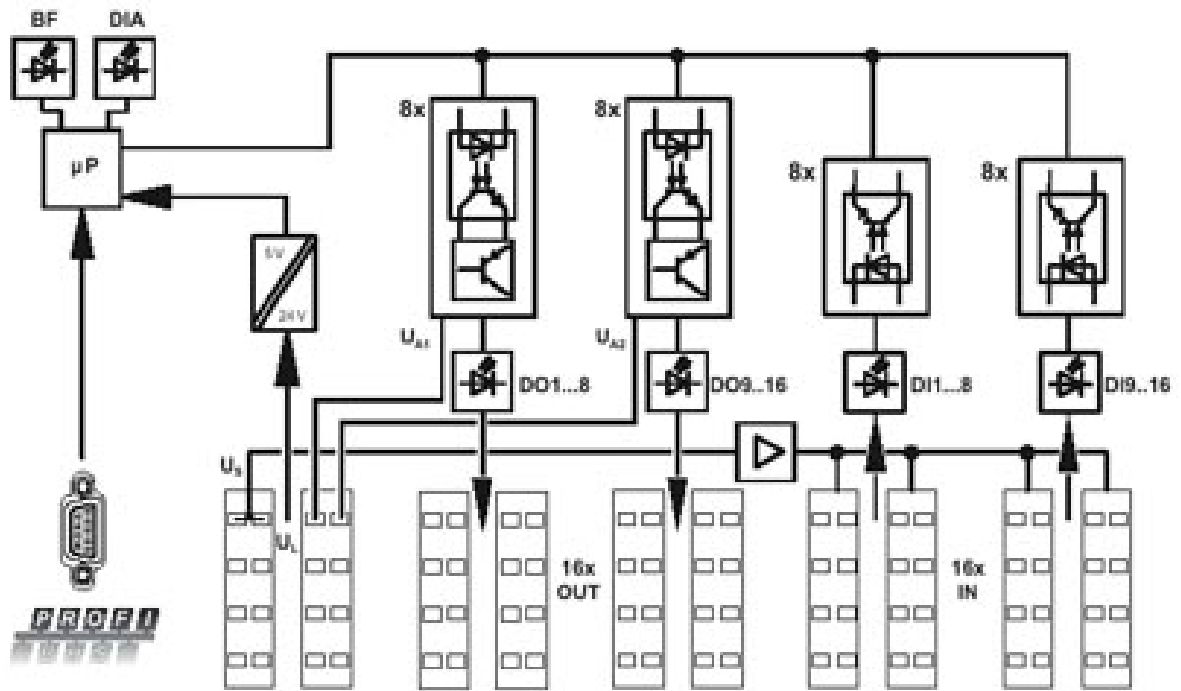


The figure shows the general dimensional drawing of the Inline Block IO product family

Connection diagram



Block diagram



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Classifications

UNSPSC

UNSPSC 21.0	32151600
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
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