

Inline function terminal - IB IL 24 IOL 4 DI 12-2MBD-PAC - 2692733

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Inline IO-Link master, complete with accessories (connector and labeling field), 4 IO-Link ports, 12 digital inputs, 24 V DC, transmission speed 2 Mbaud, 2, 3-wire connection method

Product Description

The terminal is designed for use within an Inline station.

The terminal is used to operate IO-Link-compatible sensors and actuators (devices). It is also used to acquire digital signals.

IO-Link is the standard for consistent communication from the controller to the lowest field level. In IO-Link communication, the process data is forwarded during parallel service data transmission.

IO-Link is a point-to-point connection between an IO-Link port and the sensor or actuator. IO-Link technology uses the familiar signal technology of the 0 V and 24 V binary interface in order to transmit data using pulse modulation. IO-Link offers full backward compatibility with standard sensors/actuators.


Using this terminal, IO-Link-compatible devices from any manufacturer can be operated on INTERBUS, PROFIBUS, and PROFINET.

Your advantages

- 4 type A IO-Link ports
- Optional use of the IO-Link ports in SIO mode as standard inputs or standard outputs
- Connections for 12 digital sensors
- Connection of sensors in 2 or 3-wire technology
- IO-Link specification V1.0.0

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Key Commercial Data

Packing unit	1
GTIN	 4 046356 418416
GTIN	4046356418416
Custom tariff number	85389091

Technical data

Dimensions

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Technical data

Dimensions

Width	48.8 mm
Height	119.8 mm
Depth	71.5 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (according to DIN EN 61131-2)
Permissible humidity (storage/transport)	10 % ... 95 % (according to DIN EN 61131-2)
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Degree of protection	IP20

General

Mounting type	DIN rail
Color	green
Net weight	200 g
Note on weight specifications	with connectors
Diagnostics messages	Short-circuit of a digital output in the SIO mode Yes
	Sensor supply short-circuit No
	Sensor supply overload No

Interfaces

Designation	Inline local bus
No. of channels	2
Connection method	Inline data jumper
Transmission speed	2 Mbps

Inline potentials

Designation	Communications power (U_L)
Supply voltage	7.5 V (via voltage jumper)
Current consumption	max. 100 mA
Designation	Segment circuit supply (U_S)
Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	max. 2 A (with load and port supply)
	max. 52 mA (without load)

Digital inputs

Input name	Digital inputs
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Technical data

Digital inputs

Description of the input	IEC 61131-2 type 1
Connection method	Inline connector
Connection technology	3-wire
Number of inputs	12
Nominal input voltage U_{IN}	24 V DC
Nominal input current at U_{IN}	2.2 mA
Input voltage range "0" signal	< 5 V (typ.)
Input voltage range "1" signal	> 11 V DC (typ.)
Input voltage range	0 V ... 30 V
Delay at signal change from 0 to 1	3 ms
Delay at signal change from 1 to 0	3 ms
Input name	Digital inputs
Connection method	Inline connector
Number of inputs	max. 4
Nominal input current	5.5 mA (at 24 V DC)
Signal delay	3 ms
	3 ms
Permissible cable length	20 m

Digital outputs

Number of outputs	max. 4
Nominal current per channel	max. 200 mA ($I_{Nominal}$)
Maximum total current consumption	max. 800 mA
Limitation of the voltage induced on circuit interruption	approx. -1 V
Type of protection	Short-circuit protection
Behavior with overload	Output may be damaged
Behavior in case of short-circuit	Short-circuit protection

Electrical isolation

Test section	24 V supply U_S (IO-Link and digital inputs) / functional earth ground 500 V DC 50 Hz 1 min.
	24 V supply U_S (IO-Link and digital inputs) / 7.5 V supply (bus logic) 500 V DC 50 Hz 1 min.
	7.5 V supply (bus logics) / functional earth ground 500 V DC 50 Hz 1 min.

Standards and Regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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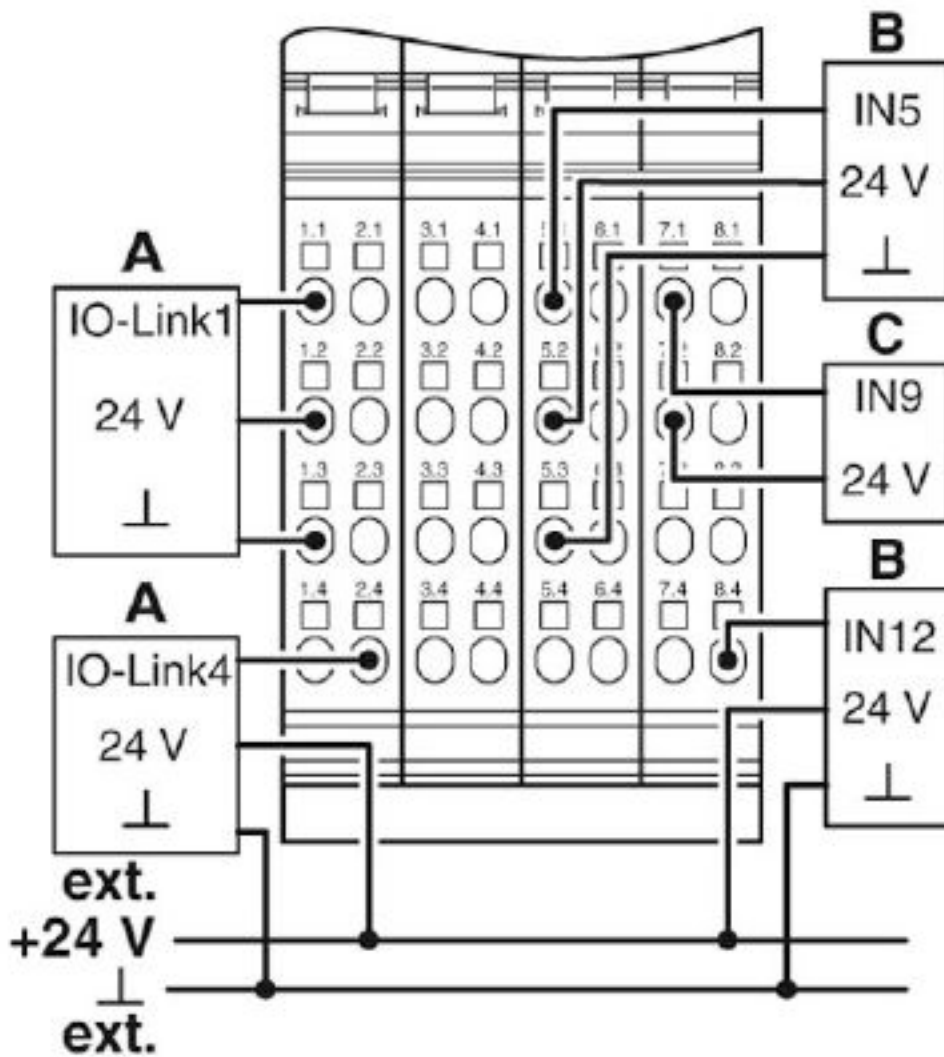
Technical data

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

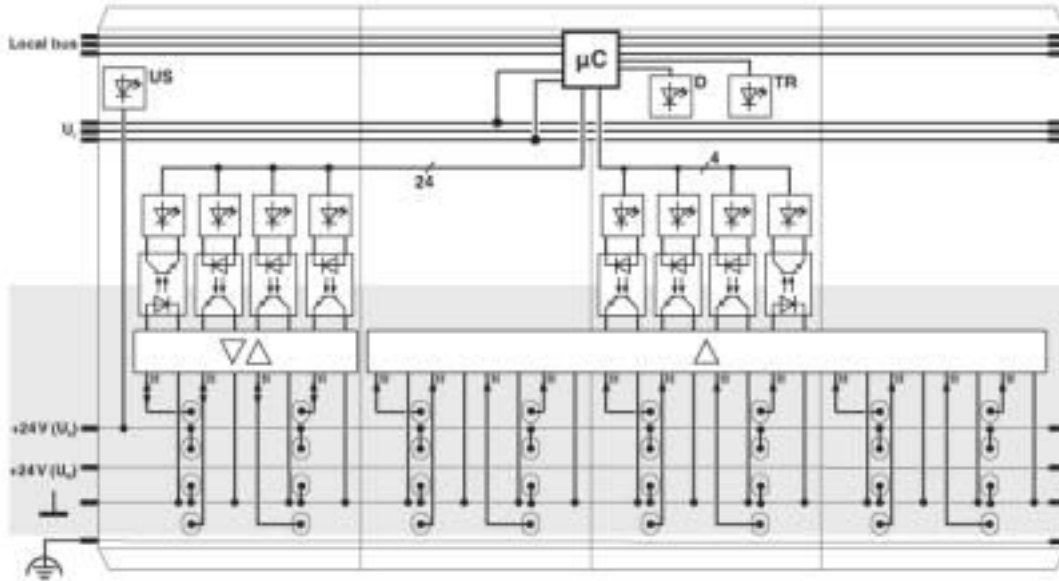
Drawings

Connection diagram



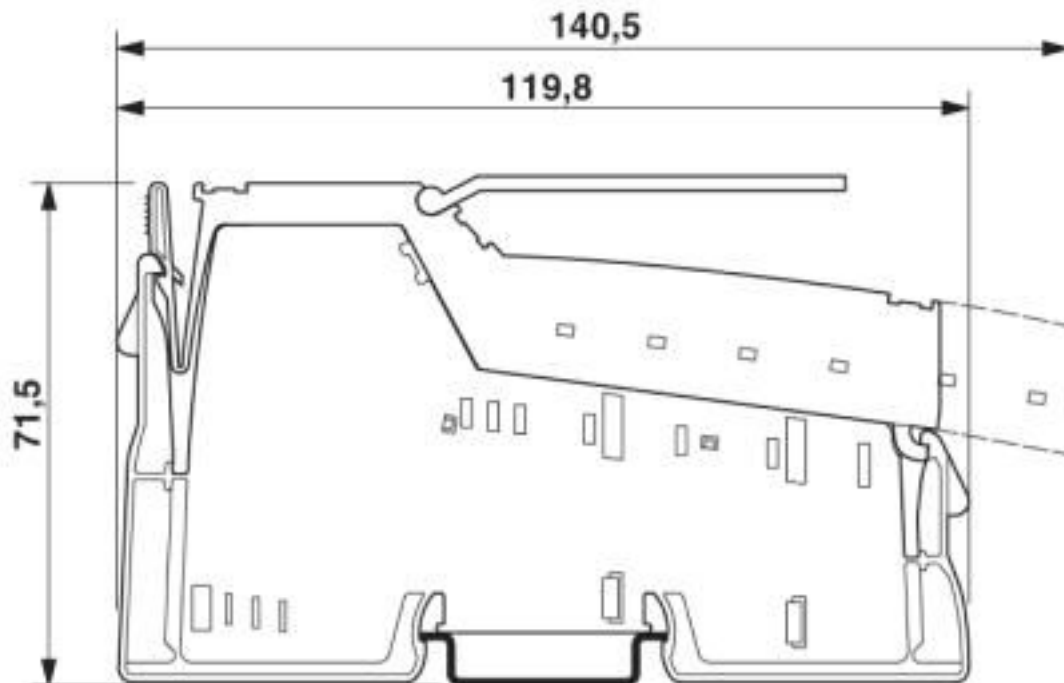
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Block diagram



Internal wiring of the terminal points

Dimensional drawing



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Classifications

eCl@ss

eCl@ss 10.0.1	27242604
eCl@ss 4.0	27250300
eCl@ss 4.1	27250300
eCl@ss 5.0	27250300
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

ETIM

ETIM 2.0	EC001430
ETIM 3.0	EC001599
ETIM 4.0	EC001599
ETIM 5.0	EC001599
ETIM 6.0	EC001599
ETIM 7.0	EC001599

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

Accessories

Accessories

Connector set

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Accessories

Connector set - IB IL DI/DO 8-PLSET/CP - 2860963



Connector set, for IB IL DI/DO 8, copper, with color print.

I/O component

Inline terminal - IB IL PD 24V-PAC - 2862987



Inline terminal for power distribution (24 V), complete with accessories, (connector and labeling field) 24 V supply voltage is fed out from the segment circuit (US)

Inline terminal - IB IL PD GND-PAC - 2862990



Inline terminal for power distribution (GND), complete with accessories, (connector and labeling field) connections for GND

Labeling panel

Labeling field - IB IL FIELD 8 - 2727515

Labeling field, width: 48.8 mm



Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



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Terminal marking

Insert strip - ESL 62X10 - 0809492



Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 10 mm, Number of individual labels: 72

Insert strip - ESL 62X46 - 0809502



Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 46 mm, Number of individual labels: 120

Connector set - IB IL DI/DO16-PLSET - 2860976

Connector set, for IB IL DI/DO 16, copper, consecutively numbered, no colored identification,
