

IB IL 24 DO8/HD-PAC - Digital module



2700172

<https://www.phoenixcontact.com/us/products/2700172>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Inline, Digital output terminal, Digital outputs: 8, 24 V DC, connection technology: 1-conductor, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connector and labeling field

Product description

The terminal is designed for use within an Inline station. It is used to output digital signals.

Your advantages

- 8 digital outputs
- Connection of actuators in 1-conductor technology
- Nominal current per output: 500 mA
- Total current of the terminal: 4 A
- Short-circuit and overload-protected outputs

Commercial data

Item number	2700172
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI132
Catalog page	Page 129 (C-6-2019)
GTIN	4046356492478
Weight per piece (including packing)	84.3 g
Weight per piece (excluding packing)	60 g
Customs tariff number	85389099
Country of origin	DE

Technical data

Dimensions

Dimensional drawing	
Width	12.2 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

Notes

Utilization restriction

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

Interfaces

Inline local bus

Number of interfaces	2
Connection method	Inline data jumper
Transmission speed	500 kbps

System properties

Module

ID code (dec.)	189
ID code (hex)	BD
Length code (hex)	81
Length code (dec)	129
Process data channel	8 bit
Input address area	0 Byte
Output address area	1 Byte
Register length	8 bit
Required parameter data	3 Byte
Required configuration data	4 Byte

Output data

Digital

Output name	Digital outputs
Connection method	Spring-cage connection

IB IL 24 DO8/HD-PAC - Digital module



2700172

<https://www.phoenixcontact.com/us/products/2700172>

Connection technology	1-conductor
Number of outputs	8
Protective circuit	Overload protection, short-circuit protection of outputs; electronic
Output voltage	24 V ($U_S - 1$ V)
Limitation of the voltage induced on circuit interruption	-45.8 V ... -15 V
Maximum output current per channel	500 mA
Maximum output current per module	4 A
Nominal output voltage	24 V DC
Output voltage when switched off	max. 1 V
Output current when switched off	max. 300 μ A
Nominal load, inductive	12 VA (1.2 H, 48 Ω)
Nominal load, lamp	12 W
Nominal load, ohmic	12 W (48 Ω)
Maximum operating frequency with ohmic nominal load	max. 300 Hz (this switching frequency is limited by the data rate selected, the number of bus devices, the structure of the bus, the software used and the control or computer system used)
Reverse voltage resistance to short pulses	Reverse voltage proof
Behavior with overload	Auto restart
Behavior with inductive overload	Output can be destroyed
Behavior at voltage switch-off	The output follows the power supply without delay
Overcurrent shut-down	min. 0.7 A
Output name	Digital outputs
Connection method	Spring-cage connection
Connection technology	1-conductor
Number of outputs	8
Protective circuit	Overload protection, short-circuit protection of outputs; electronic
Output voltage	24 V ($U_S - 1$ V)
Limitation of the voltage induced on circuit interruption	-45.8 V ... -15 V
Maximum output current per channel	500 mA
Maximum output current per module	4 A
Nominal output voltage	24 V DC
Output voltage when switched off	max. 1 V
Output current when switched off	max. 300 μ A
Nominal load, inductive	12 VA (1.2 H, 48 Ω)
Nominal load, lamp	12 W
Nominal load, ohmic	12 W (48 Ω)
Maximum operating frequency with ohmic nominal load	max. 300 Hz (this switching frequency is limited by the data rate selected, the number of bus devices, the structure of the bus, the software used and the control or computer system used)
Reverse voltage resistance to short pulses	Reverse voltage proof
Behavior with overload	Auto restart
Behavior with inductive overload	Output can be destroyed
Behavior at voltage switch-off	The output follows the power supply without delay
Overcurrent shut-down	min. 0.7 A

Product properties

Type	modular
Product type	I/O component
Product family	Inline
Scope of delivery	including Inline connector and labeling field
No. of channels	8
Operating mode	Process data mode with one byte
Diagnostics messages	Short-circuit or overload of the digital outputs Error message in the diagnostic code (bus) and display (2 Hz) via the LED (D) on the module

Insulation characteristics

Overvoltage category	II (IEC 60664-1, EN 60664-1)
Pollution degree	2 (IEC 60664-1, EN 60664-1)

Electrical properties

Potentials

Power consumption	max. 0.85 W (Module, complete)
-------------------	--------------------------------

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 30 mA
Power consumption	max. 0.225 W

Potentials: 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 draw	max. 4 A

Electrical isolation/isolation of the voltage ranges

Test voltage: 7.5 V supply (bus logics)/24 V supply (I/O)	500 V AC, 50 Hz, 1 min.
Test voltage: 7.5 V supply (bus logic)/functional ground	500 V AC, 50 Hz, 1 min.
Test voltage: 24 V supply (I/O) / functional ground	500 V AC, 50 Hz, 1 min.

Connection data

Connection technology

Connection name	Inline connector
-----------------	------------------

Conductor connection

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

Inline connector

IB IL 24 DO8/HD-PAC - Digital module



2700172

<https://www.phoenixcontact.com/us/products/2700172>

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 ... 55 °C
Degree of protection	IP20
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)
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)

Standards and regulations

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

Mounting

Mounting type	DIN rail mounting
---------------	-------------------

2700172

<https://www.phoenixcontact.com/us/products/2700172>

Classifications

ECLASS

ECLASS-11.0	27242604
ECLASS-12.0	27242604
ECLASS-13.0	27242604

ETIM

ETIM 9.0	EC001599
----------	----------

UNSPSC

UNSPSC 21.0	32151600
-------------	----------

IB IL 24 DO8/HD-PAC - Digital module



2700172

<https://www.phoenixcontact.com/us/products/2700172>

Environmental product compliance

REACH SVHC

Lead 7439-92-1

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com