

Bus coupler - IL DN BK DI8 DO4-PAC - 2897211

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Inline, Bus coupler, DeviceNet™, TWIN COMBICON, Digital inputs: 8 , 24 V DC, connection method: 3-wire, Digital outputs: 4, 24 V DC, 500 mA, connection method: 3-wire, transmission speed in the local bus: 500 kbps / 2 Mbps, degree of protection: IP20, including Inline connectors and marking fields

Product Description

The bus coupler with integrated I/Os is intended for use within a DeviceNet™ network and represents the link to the Inline I/O system. Up to 61 Inline devices can be connected to the bus coupler. A corresponding EDS file is available for integrating the Inline station into the programming system. This file can be downloaded via the product at phoenixcontact.net/products.

Your advantages

- ✓ DeviceNet™ connection using TWIN-COMBICON plug
- ✓ 62 terminals can be connected
- ✓ Automatic speed detection of the system bus
- ✓ Address can be set via DIP switches or software
- ✓ Slave function in DeviceNet™ network



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 103015
GTIN	4046356103015

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	80 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Specifications with connectors

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Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
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	320 g
Note on weight specifications	with connectors
Diagnostics messages	Short-circuit / overload of the digital outputs Yes
	Sensor supply failure Yes
	Failure of the actuator supply Yes

Interfaces

Designation	DeviceNet™
No. of channels	1
Connection method	TWIN COMBICON
Transmission speed	500 kbps, 250 kbps, 125 kbps (Can be set via DIP switch or programmed)
Number of positions	10
Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kbps / 2 Mbps (automatic detection, no combined system)

System limits of the bus coupler

Number of supported devices	max. 63 (per station)
Number of local bus devices that can be connected	max. 61 (on board I/Os are two devices)
Number of devices with parameter channel	max. 8
Number of supported branch terminals with remote bus branch	0

Inline potentials

Designation	Bus coupler supply U_{BC} ; Communications power U_L (7.5 V) and the analog supply U_{ANA} (24 V) are generated from the bus coupler supply.
Supply voltage	24 V DC (via Inline connector)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	max. 0.9 A
Designation	Communications power (U_L)
Supply voltage	7.5 V DC ± 5 %
Power supply unit	max. 0.8 A DC

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Inline potentials

Designation	Supply of analog modules (U_{ANA})
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply unit	max. 0.5 A DC
Designation	Main circuit supply (U_M)
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply unit	max. 8 A DC (sum of $U_M + U_S$)
Current consumption	max. 8 A DC
Designation	Segment circuit supply (U_S)
Supply voltage	24 V DC (via Inline connector)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply unit	max. 8 A DC (sum of $U_M + U_S$)
Current consumption	max. 8 A DC

Digital inputs

Input name	Digital inputs
Description of the input	EN 61131-2 type 1
Connection method	Inline connector
Connection technology	3-wire
Number of inputs	8
Typical response time	approx. 500 μ s
Protective circuit	Reverse polarity protection Suppressor diode
Nominal input voltage U_{IN}	24 V DC
Nominal input current at U_{IN}	typ. 3 mA
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
Typical input current per channel	typ. 3 mA
Delay at signal change from 0 to 1	1.2 ms
Delay at signal change from 1 to 0	1.2 ms

Digital outputs

Output name	Digital outputs
Connection method	Inline connector
Connection technology	3-wire
Number of outputs	4
Protective circuit	Short-circuit and overload protection Free running circuit
Output voltage	24 V DC -1 V (At nominal current)
Nominal output voltage	24 V DC
Maximum output current per channel	500 mA

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Digital outputs

Maximum output current per module / terminal block	2 A
Maximum output current per module	2 A
Nominal load, inductive	12 VA (1.2 H, 48 Ω)
Nominal load, lamp	12 W
Nominal load, ohmic	12 W
Limitation of the voltage induced on circuit interruption	approx. -30 V
Output current when switched off	max. 10 µA (When not loaded, a voltage can be measured even at an output that is not set.)
Behavior with overload	Auto restart
Behavior with inductive overload	Output can be destroyed
Reverse voltage resistance to short pulses	Reverse voltage proof

Standards and Regulations

Mechanical tests	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g
	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 Operation: 25g, 11 ms duration, semi-sinusoidal shock impulse
Connection in acc. with standard	CUL
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

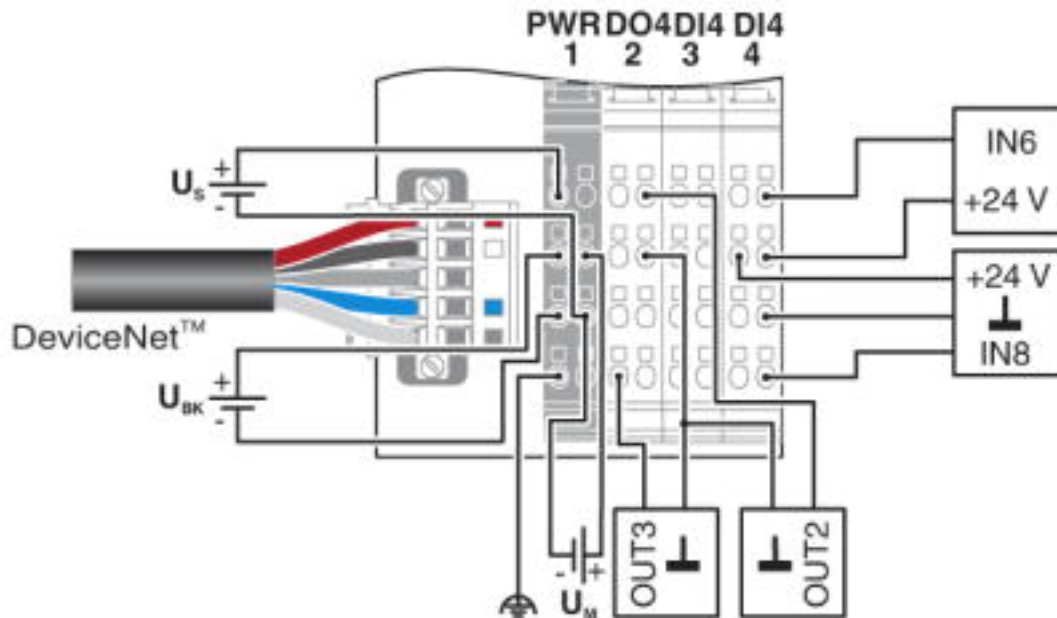
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

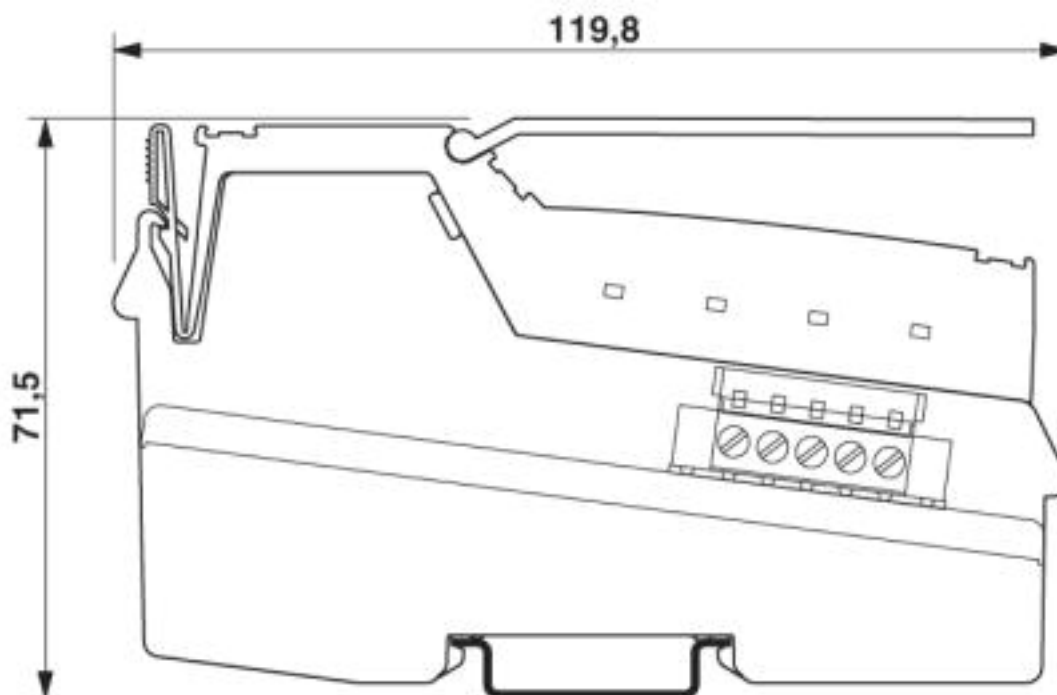
Drawings

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Connection diagram

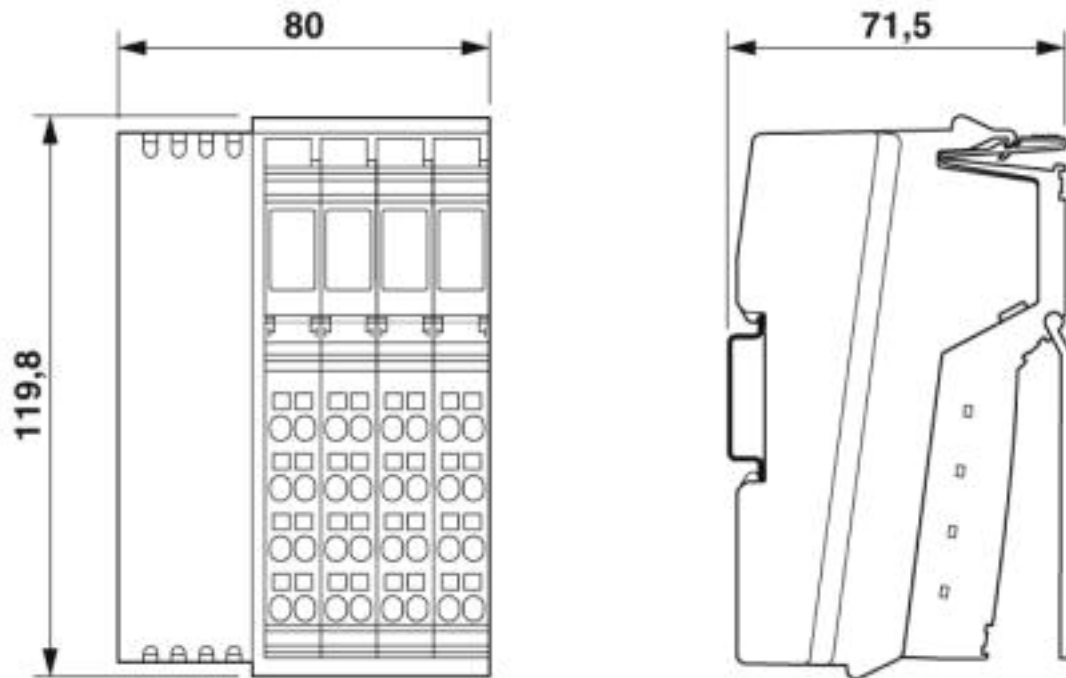


Dimensional drawing



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Dimensional drawing



Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

UL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 140324

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Approvals

cULus Recognized



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