PHŒNIX CONTACT

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-conductor, Digital outputs: 4, 24 V DC, 500 mA, Connection method: 3-conductor, 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.

Why buy this product

☑ 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

RoHS

DeviceNet

Key Commercial Data

Packing unit	1 STK
GTIN	
GTIN	4046356103015
Weight per Piece (excluding packing)	352.400 g
Custom tariff number	85176200
Country of origin	Germany

Technical data

Note

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Technical data

Note

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

Dimensions

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

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °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
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

Fieldbus system	DeviceNet™
Designation	DeviceNet™
Connection method	TWIN COMBICON
Transmission speed	500 kbps, 250 kbps, 125 kbps (Can be set via DIP switch or programmed)
Number of positions	10
Fieldbus system	Lokalbus
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)

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System limits of the bus coupler

Number of devices with parameter channel	max. 8
Number of supported branch terminals with remote bus branch	0

Power supply for module electronics

Connection method	Spring-cage connection
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)
Supply current	typ. 70 mA
Current consumption	max. 0.9 A (from U_{BK})
Power dissipation	max. 3.5 W (entire device)
Communications power U_L	7.5 V DC
Current consumption	0.8 A
Power consumption	typ. 1.7 W

Inline potentials

Communications power U_L	7.5 V DC ±5 %
Power supply at U_L	max. 0.8 A DC
Main circuit supply U_M	24 V DC
Supply voltage range U_M	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply at U_M	max. 8 A DC (Sum of $U_M + U_S$)
Current consumption from U_M	max. 8 A DC
Segment circuit supply U_S	24 V DC
Supply voltage range U_S	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply at U_S	max. 8 A DC (Sum of $U_M + U_S$)
Current consumption from U_S	max. 8 A DC
I/O supply voltage U_{ANA}	24 V DC
Supply voltage range U_{ANA}	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply at U_{ANA}	max. 0.5 A DC

Digital inputs

Input name	Digital inputs
Description of the input	EN 61131-2 type 1
Connection method	Inline connector
	3-conductor
Number of inputs	8
Typical response time	approx. 500 µs

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Digital inputs

Protective circuit	Reverse polarity protection Suppressor diode
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 current at U_{IN}	typ. 3 mA
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
	3-conductor
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
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

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

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Approvals

Approvals

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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

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324

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

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