

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC



2692380

<https://www.phoenixcontact.com/us/products/2692380>

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, Bus coupler, Sercos, RJ45 jack, Digital inputs: 8, 24 V DC, connection technology: 3-conductor, Digital outputs: 4, 24 V DC, 500 mA, connection technology: 3-conductor, transmission speed in the local bus: 500 kbps / 2 Mbps, degree of protection: IP20, including inline connectors, marking fields, and end plate

Product Description

The bus coupler with integrated I/Os is intended for use within a Sercos[®] network and represents the link to the Inline I/O system. Up to 63 Inline devices can be connected to the bus coupler. The bus coupler supports a maximum of 16 PCP devices. A corresponding SDDML file is available for integrating the Inline station into the programming system. This file can be downloaded at: phoenixcontact.net/product/2692380.

Your advantages

- 2 Ethernet ports
- Automatic detection of the transmission speed in the local bus (500 kbps or 2 Mbps)
- 8 digital inputs, 4 digital outputs (on-board)
- Minimum Sercos cycle time of 250 µs
- FSP-IO (Function Specific Profile-IO) for modular I/O devices
- Maximum of 6 realtime connections
- Hot plugging of participants in Sercos network
- Diagnostics trace
- Internet Protocol Services (IPS)
- Sercos specification V1.3.1
- Sercos diagnostic LED S and communication phase LED CP

Commercial Data

Item number	2692380
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	C21
Product Key	DRI11C
Catalog Page	Page 103 (C-6-2019)
GTIN	4046356325882
Weight per Piece (including packing)	343.6 g
Weight per Piece (excluding packing)	298 g
Customs tariff number	85389091
Country of origin	DE

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC

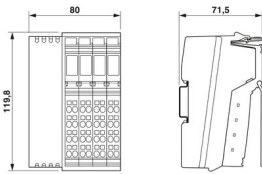


2692380

<https://www.phoenixcontact.com/us/products/2692380>

Technical Data

Dimensions

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

Material specifications

Color	green
-------	-------

Interfaces

Sercos

Number of interfaces	2
Connection method	RJ45 jack

Inline local bus

Number of interfaces	1
Connection method	Inline data jumper
Transmission speed	500 kbps / 2 Mbps (automatic detection, no combined system)

Sercos

Equipment type	Sercos slave
----------------	--------------

System properties

System limits

Number of supported devices	max. 63 (per station)
Number of local bus devices that can be connected	max. 63
Number of devices with parameter channel	max. 16
Number of supported branch terminals with remote bus branch	0

Module

ID code (hex)	none
---------------	------

Input data

Digital

Input name	Digital inputs
------------	----------------

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC



2692380

<https://www.phoenixcontact.com/us/products/2692380>

Description of the input	EN 61131-2 type 1
Number of inputs	8
Connection method	Inline connector
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}	typ. 3 mA
Typical input current per channel	typ. 3 mA
Typical response time	approx. 500 μ s
Protective circuit	Reverse polarity protection; Suppressor diode

Output data

Digital

Output name	Digital outputs
Connection method	Inline connector
Connection technology	3-conductor
Number of outputs	4
Protective circuit	Short-circuit and overload protection; Freewheeling circuit in the output driver
Output voltage	24 V DC -1 V (At nominal current)
Maximum output current per module	max. 2 A
Nominal output voltage	24 V DC
Output voltage when switched off	max. 500 mV
Output current when switched off	max. 500 μ A (When not loaded, a voltage can be measured even at an output that is not set.)
Nominal load, inductive	12 VA (1.2 H, 48 Ω)
Nominal load, lamp	12 W
Nominal load, ohmic	12 W
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

Product properties

Type	modular
Product type	I/O component
Scope of delivery	including inline connectors, marking fields, and end plate
No. of channels	12
Diagnostics messages	Short-circuit or overload of the digital outputs Yes
	Sensor supply failure Yes
	Failure of the actuator supply Yes

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC



2692380

<https://www.phoenixcontact.com/us/products/2692380>

Electrical properties

No. of channels	12
Maximum power dissipation for nominal condition	25.2 W
Protective circuit	Surge protection, protection against polarity reversal of the supply voltage; 35 V suppressor diode

Potentials: Bus coupler supply U_{BK} ; 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 draw	max. 1 A (with max. number of connected I/O terminal blocks) typ. 60 mA (without connected I/O terminal blocks)

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC
	max. 0.8 A

Potentials: 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)
	max. 0.5 A

Potentials: Main circuit supply (U_M)

Supply voltage	24 V DC (via Inline connector)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
	max. 8 A (sum of $U_M + U_S$)
Current draw	max. 8 A min. 3 mA (without connected peripherals)

Potentials: 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)
	max. 8 A (sum of $U_M + U_S$)
Current draw	max. 8 A min. 3 mA (without connected peripherals)

Connection data

Connection technology

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

Conductor connection

Connection method	Spring-cage connection
Conductor cross section solid	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

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC



2692380

<https://www.phoenixcontact.com/us/products/2692380>

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

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °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)	-40 °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
Mounting type	DIN rail mounting

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC

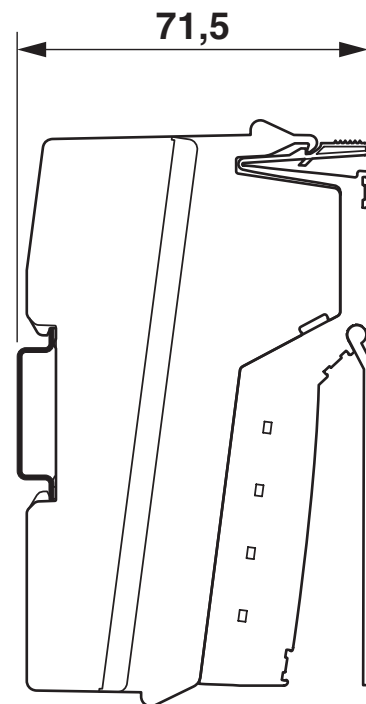
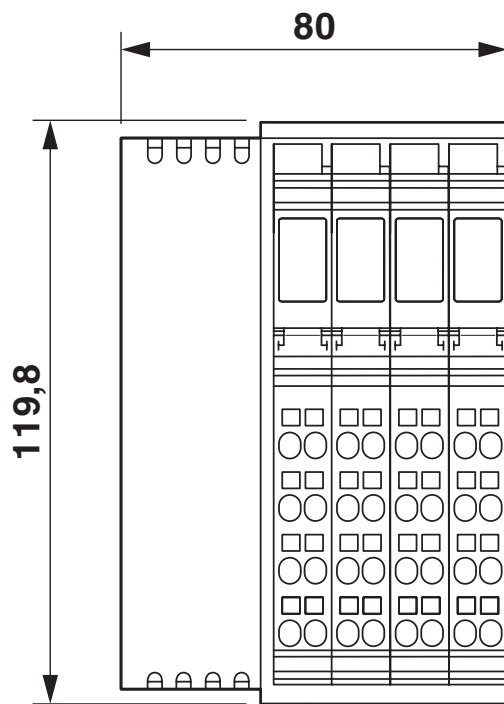
2692380

<https://www.phoenixcontact.com/us/products/2692380>



Drawings

Dimensional drawing



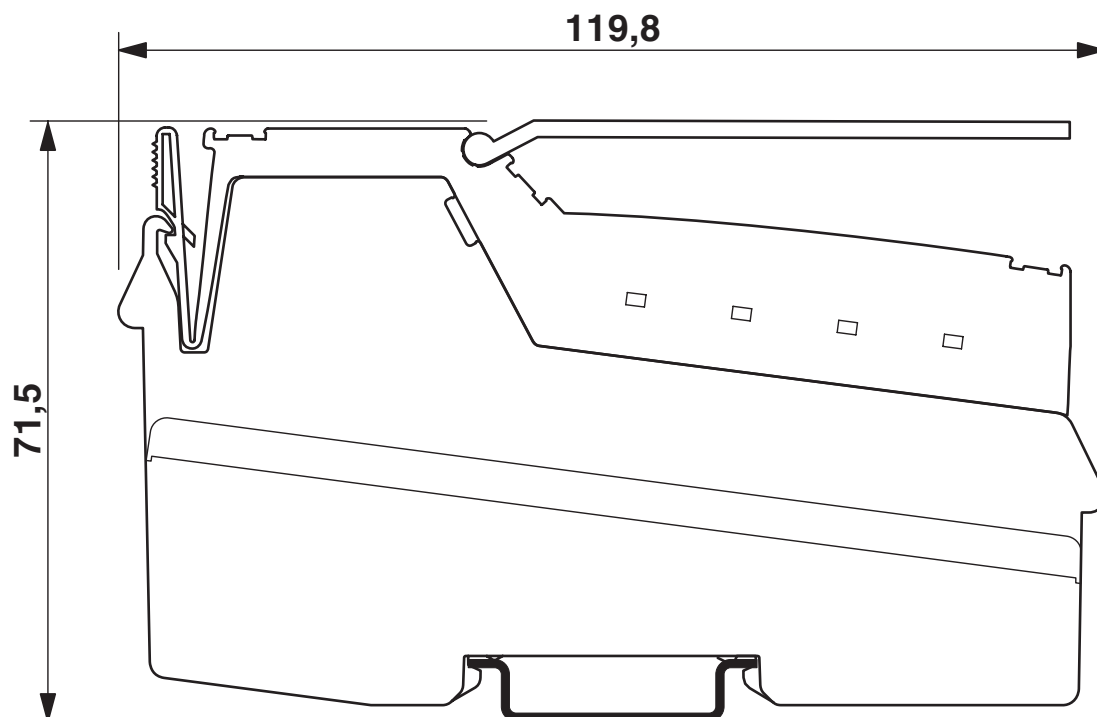
Bus coupler - IL S3 BK DI8 DO4 2TX-PAC

2692380

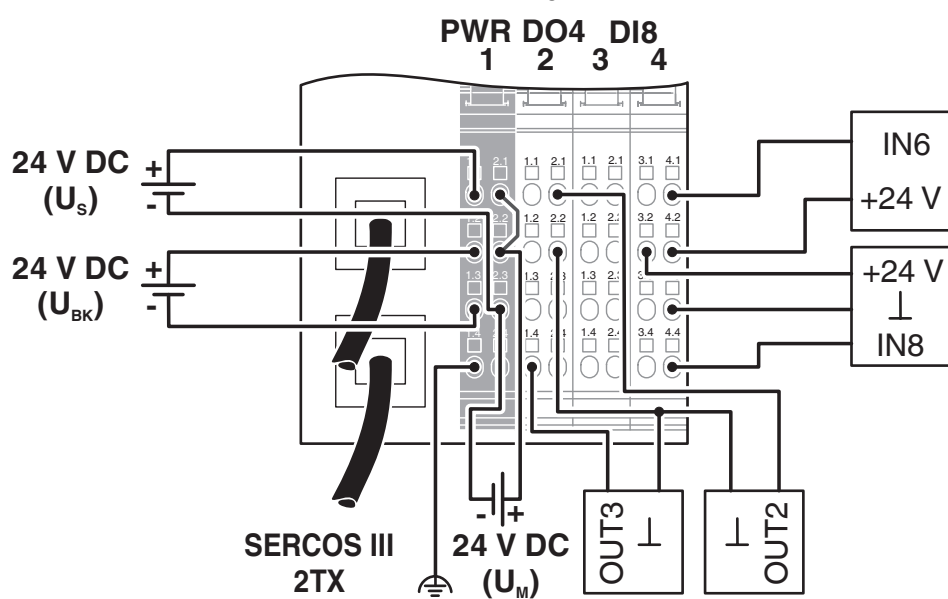
<https://www.phoenixcontact.com/us/products/2692380>



Dimensional drawing



Connection diagram



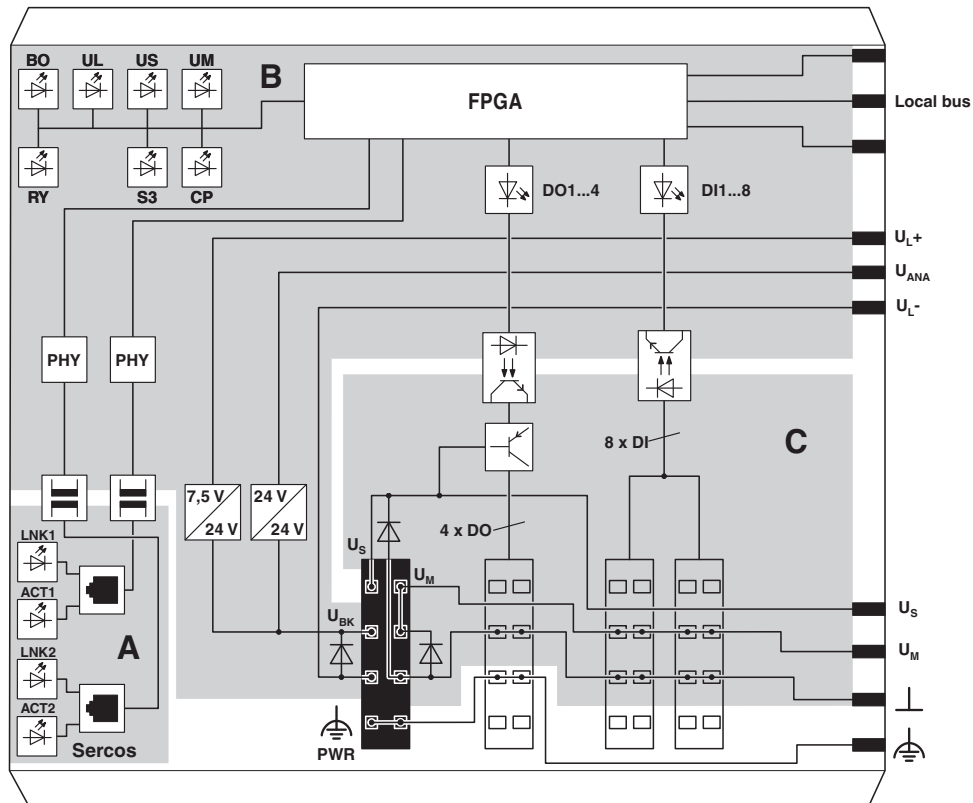
Bus coupler - IL S3 BK DI8 DO4 2TX-PAC

2692380

<https://www.phoenixcontact.com/us/products/2692380>



Block diagram



Bus coupler - IL S3 BK DI8 DO4 2TX-PAC



2692380

<https://www.phoenixcontact.com/us/products/2692380>

Approvals



EAC

Approval ID: RU*-DE*HB.B.00386/20



EAC

Approval ID: TR_TS_D_00850-20



UL Listed

Approval ID: FILE E 140324



cUL Listed

Approval ID: FILE E 140324

cULus Listed

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC



2692380

<https://www.phoenixcontact.com/us/products/2692380>

Classifications

ECLASS

ECLASS-9.0	27242608
ECLASS-10.0.1	27242608
ECLASS-11.0	27242608

ETIM

ETIM 8.0	EC001604
----------	----------

UNSPSC

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

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC



2692380

<https://www.phoenixcontact.com/us/products/2692380>

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC

2692380

<https://www.phoenixcontact.com/us/products/2692380>



Accessories

Inline connector

Inline connector - IB IL SCN-PWR IN-CP - 2727637

<https://www.phoenixcontact.com/us/products/2727637>



Connector, colored, for Inline power and segment terminal blocks

Connector set

Connector set - IL BKDIO-PLSET - 2878599

<https://www.phoenixcontact.com/us/products/2878599>



Connector set, for Inline bus coupler with I/Os mounted in rows

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC



2692380

<https://www.phoenixcontact.com/us/products/2692380>

End clamp

End clamp - CLIPFIX 35 - 3022218

<https://www.phoenixcontact.com/us/products/3022218>

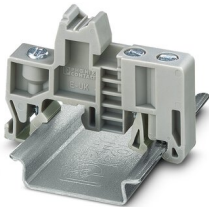


Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

End clamp

End clamp - E/UK - 1201442

<https://www.phoenixcontact.com/us/products/1201442>



End clamp, material: PA, color: gray, Mounting on a DIN rail NS 32 or NS 35

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC



2692380

<https://www.phoenixcontact.com/us/products/2692380>

Insert strip

Insert strip - ESL 62X46 - 0809502

<https://www.phoenixcontact.com/us/products/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: 15



Labeling field

Labeling field - IB IL FIELD 8 - 2727515

<https://www.phoenixcontact.com/us/products/2727515>

Labeling field, width: 48.8 mm



Bus coupler - IL S3 BK DI8 DO4 2TX-PAC



2692380

<https://www.phoenixcontact.com/us/products/2692380>

Insert strip

Insert strip - ESL 62X10 - 0809492

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



Labeling field

Labeling field - IB IL FIELD 2 - 2727501

<https://www.phoenixcontact.com/us/products/2727501>

Labeling field, width: 12.2 mm



Bus coupler - IL S3 BK DI8 DO4 2TX-PAC



2692380

<https://www.phoenixcontact.com/us/products/2692380>

RJ45 connector

RJ45 connector - FL PLUG RJ45 GR/2 - 2744856

<https://www.phoenixcontact.com/us/products/2744856>



RJ45 connector, shielded, with bend protection sleeve, 2 pieces, gray for straight cables, for assembly on site. For connections that are not crossed, it is recommended that you use the connector set with gray bend protection sleeve.

RJ45 connector

RJ45 connector - FL PLUG RJ45 GN/2 - 2744571

<https://www.phoenixcontact.com/us/products/2744571>



RJ45 connector, shielded, with bend protection sleeve, 2 pieces, green for crossed cables, for assembly on site. For connections that are crossed, it is recommended that the connector set with green bend protection sleeves is used.

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC

2692380

<https://www.phoenixcontact.com/us/products/2692380>



Network cable

Network cable - FL CAT5 HEAVY - 2744814

<https://www.phoenixcontact.com/us/products/2744814>



CAT5-SF/UTP cable (J-02YS(ST)C HP 2 x 2 x 24 AWG), heavy-duty installation cable, 2 x 2 x 0.22 mm², solid conductor, shielded, outer sheath: 7.8 mm diameter, inner sheath: 5.75 mm ± 0.15 mm diameter

Installation cable

Installation cable - FL CAT5 FLEX - 2744830

<https://www.phoenixcontact.com/us/products/2744830>



By the meter, Installation cable, Ethernet CAT5 (100 Mbps), shielded, PUR halogen-free, water blue RAL 5021, 4-wire (2x2xAWG26/7; SF/UTP), color single wire: white/orange-orange, white/green-green, cable length: Free entry (1.0 ... 1000.0 m)

Bus coupler - IL S3 BK DI8 DO4 2TX-PAC

2692380

<https://www.phoenixcontact.com/us/products/2692380>



Assembly tool

Assembly tool - FL CRIMPTOOL - 2744869

<https://www.phoenixcontact.com/us/products/2744869>

Crimping pliers, for assembling the RJ45 plugs FL PLUG RJ45..., for assembly on site



Phoenix Contact 2022 © - 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