

Bus coupler - IBS IL 24 BK DIO 16/16 - 2742586

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Inline, Bus coupler, INTERBUS, Inline shield connector, Digital inputs: 16, 24 V DC, connection method: 3-wire, Digital outputs: 16, 24 V DC, 500 mA, connection method: 3-wire, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connectors and marking fields

Product Description


The complete Inline station consists of an INTERBUS bus terminal, a digital output terminal with 16 outputs, and a digital input terminal with 16 inputs. This package contains all the necessary Inline connector to connect the bus, the supply and the I/Os. The Inline terminals can be labeled using hinged labeling fields. The fields have insert cards that can be labeled individually to suit the application. Additionally, there is the ZBFM -6... Zack strip for labeling the terminal points.

Your advantages

- 16 digital inputs
- 16 digital outputs
- Connection of sensors in 2 and 3-wire technology
- Connection of actuators in 2 and 3-wire technology
- Maximum permissible load current per sensor: 250 mA
- Nominal current per output: 500 mA
- Diagnostic and status indicators



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 603984
GTIN	4017918603984

Technical data

Note

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

Width	146.4 mm
Height	140.5 mm

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Technical data

Dimensions

Depth	71.5 mm
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Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Permissible humidity (operation)	95 % (non-condensing)
Permissible humidity (storage/transport)	95 % (non-condensing)
Air pressure (operation)	80 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	394 g
Note on weight specifications	with connectors

Interfaces

Designation	INTERBUS
No. of channels	2
Connection method	Inline shield connector
Transmission speed	500 kbps
Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kbps
Designation	Supply
Connection method	8-pos. Inline power connector

Network/bus system

Number of local bus devices that can be connected	63 (observe total permissible current consumption)
Number of devices with parameter channel	16
Number of supported branch terminals with remote bus branch	max. 15

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	typ. 100 mA (without connected Inline I/O terminals)
	max. 1.25 A (with max. number of connected I/O terminal blocks (24 V DC supply))
Designation	Communications power (U_L)
Supply voltage	7.5 V DC $\pm 5\%$
Power supply unit	max. 2 A DC
Designation	Supply of analog modules (U_{ANA})

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Inline potentials

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 (observe derating)
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 $U_M + U_S$)
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)
Power supply unit	max. 8 A DC (sum of $U_M + U_S$)

Digital inputs

Input name	Digital inputs
Description of the input	EN 61131-2 type 1
Connection method	Spring-cage connection
Connection technology	3-wire
Number of inputs	16
Protective circuit	Polarity reversal Suppressor diode
Nominal input voltage U_{IN}	24 V DC
Input voltage	24 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Typical input current per channel	typ. 3 mA

Digital outputs

Output name	Digital outputs
Connection method	Spring-cage connection
Connection technology	3-wire
Number of outputs	16
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	8 A
Nominal load, inductive	12 VA
Nominal load, lamp	12 W
Nominal load, ohmic	12 W
Limitation of the voltage induced on circuit interruption	approx. -30 V

Electrical isolation

Test section	5 V supply, incoming remote bus/5 V supply outgoing remote bus 500 V AC 50 Hz 1 min.
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Technical data

Electrical isolation

	5 V supply incoming remote bus/7.5 V communications power, 24 V analog supply, 24 V bus coupler supply 500 V AC 50 Hz 1 min.
	5 V supply, incoming remote bus/24 V main supply, 24 V segment supply 500 V AC 50 Hz 1 min.
	5 V supply incoming remote bus/functional ground 500 V AC 50 Hz 1 min.
	5 V supply outgoing remote bus/7.5 V communications power, 24 V analog supply, 24 V bus coupler supply 500 V AC 50 Hz 1 min.
	5 V supply, outgoing remote bus/24 V main supply, 24 V segment supply 500 V AC 50 Hz 1 min.
	5 V supply outgoing remote bus/functional ground 500 V AC 50 Hz 1 min.
	7.5 V communications power, 24 V analog supply, 24 V bus coupler supply/functional ground 500 V AC 50 Hz 1 min.
	7.5 V logics supply, 24 V analog supply, 24 V bus terminal module supply / 24 V main supply, 24 V segment supply 500 V AC 50 Hz 1 min.
	24 V main supply, 24 V segment supply/functional ground 500 V AC 50 Hz 1 min.

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

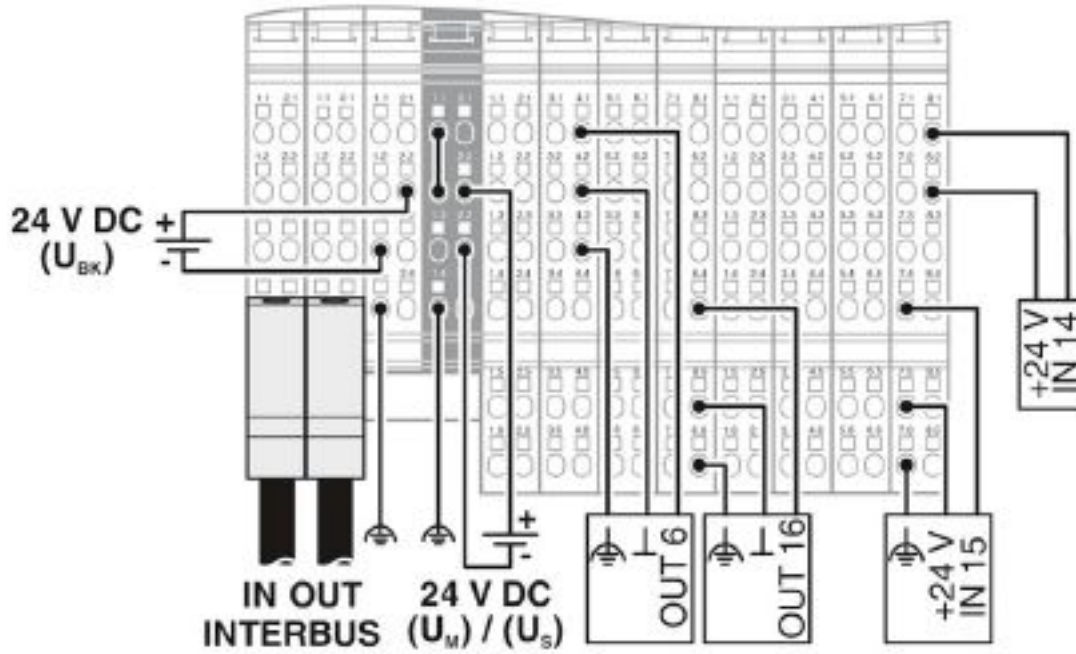
Environmental Product Compliance

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

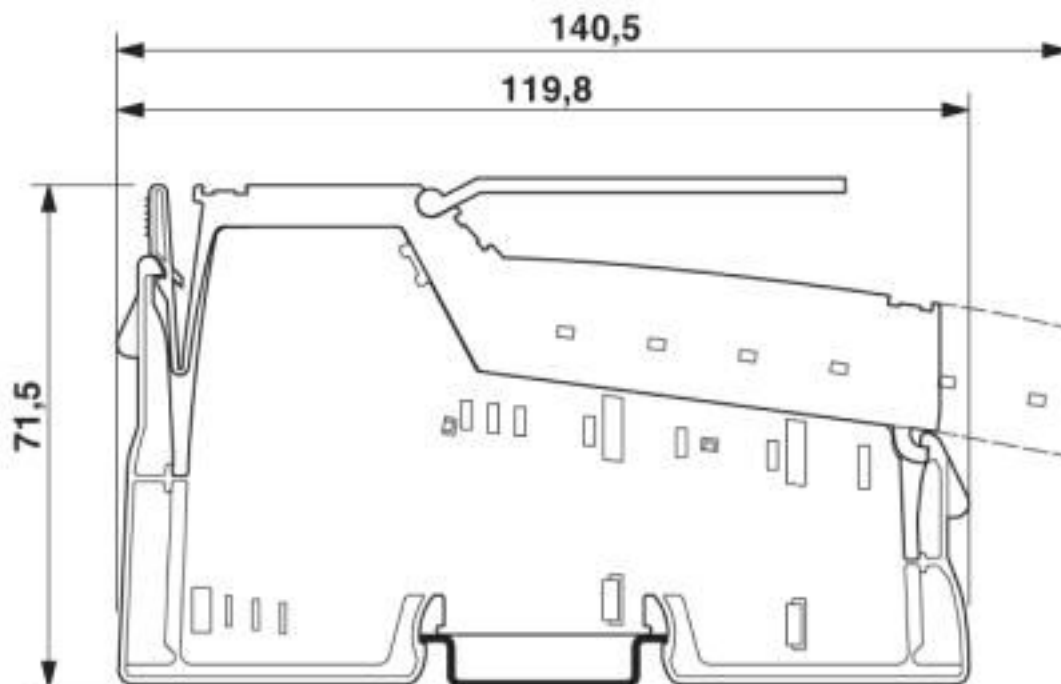
Drawings

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Connection diagram



Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27242608
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Classifications

eCl@ss

eCl@ss 4.0	27250200
eCl@ss 4.1	27250200
eCl@ss 5.0	27250200
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242608
eCl@ss 8.0	27242608
eCl@ss 9.0	27242608

ETIM

ETIM 2.0	EC001434
ETIM 3.0	EC001604
ETIM 4.0	EC001604
ETIM 5.0	EC001604
ETIM 6.0	EC001604
ETIM 7.0	EC001604

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

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

Approval details

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Approvals

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

Accessories

End block

End clamp - CLIPFIX 35 - 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

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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Accessories

Terminal marking

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



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



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