

IB IL AO 2/SF-PAC - Analog module



2863083

<https://www.phoenixcontact.com/us/products/2863083>

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Inline, Analog output terminal, Analog outputs: 2, 0 V ... 10 V, 0 mA ... 20 mA, 4 mA ... 20 mA, connection technology: 2-conductor, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connectors and marking fields

Product description

The terminal is designed for use within an Inline station. It is used to output analog current and voltage signals. The signals are available with a 16-bit resolution.

Your advantages

- 2 analog output channels
- Connection of actuators in 2-conductor technology
- Voltage range: 0 V ... 10 V
- Current ranges: 0 mA ... 20 mA, 4 mA ... 20 mA
- Output values can be represented in two different formats
- Behavior of the outputs in the event of an error can be configured
- Process data update including conversion time of the digital/analog converter < 1 ms

Commercial data

Item number	2863083
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI142
Catalog page	Page 142 (C-6-2019)
GTIN	4017918917104
Weight per piece (including packing)	234.6 g
Weight per piece (excluding packing)	190 g
Customs tariff number	85389099
Country of origin	DE

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Technical data

Dimensions

Dimensional drawing	
Width	48.8 mm
Height	135 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

Notes

Note on application	Only for industrial use
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.)	91
ID code (hex)	5B
Length code (hex)	02
Length code (dec)	02
Process data channel	32 bit
Input address area	4 Byte
Output address area	4 Byte
Register length	32 bit
Required parameter data	6 Byte
Required configuration data	5 Byte

Output data

Analog:	
Output name	Analog outputs

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Connection technology	2-conductor
Note regarding the connection technology	shielded
Number of outputs	2
D/A converter resolution	16 bit
Protective circuit	Transient protection of outputs
	Short-circuit protection of outputs
Representation of output values	16 bits (15 bits + sign)
DAC resolution	16 bit
Process data update	< 1 ms
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
Load/output load current output	$\leq 500 \Omega$
Voltage output signal	0 V ... 10 V
Load/output load voltage output	$\geq 2 \text{ k}\Omega$

Product properties

Product type	I/O component
Product family	Inline
Type	modular
Scope of delivery	including Inline connectors and marking fields
Operating mode	Process data mode with two words
Diagnostics messages	I/O supply failure I/O error message sent to the bus coupler

Insulation characteristics

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

Electrical properties

Maximum power dissipation for nominal condition	3.36 W
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Potentials

Power consumption	typ. 2.1 W (entire device)
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Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 45 mA
	typ. 36 mA

Potentials: Supply of analog modules (U_{ANA})

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. 95 mA
	typ. 75 mA

Electrical isolation/isolation of the voltage ranges

Test voltage: 7.5 V supply (bus logic), 24 V supply U_{ANA} / I/O	500 V AC, 50 Hz, 1 min.
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Test voltage: 7.5 V supply (bus logic), 24 V supply U_{ANA} / 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
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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

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)
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Mounting

Mounting type	DIN rail mounting
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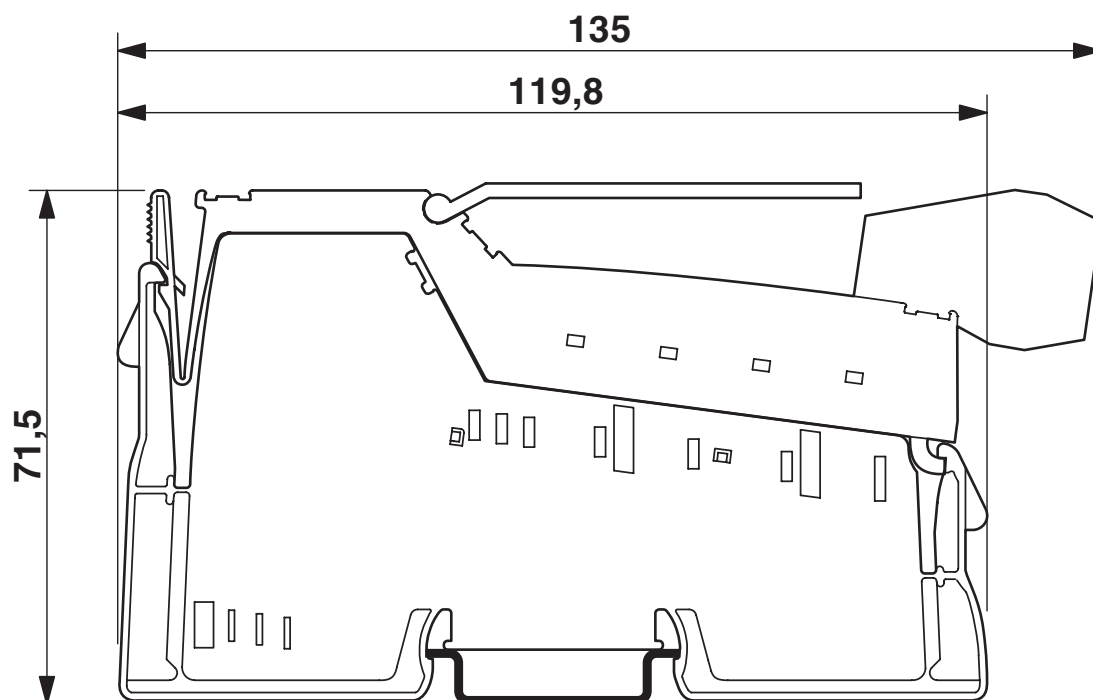
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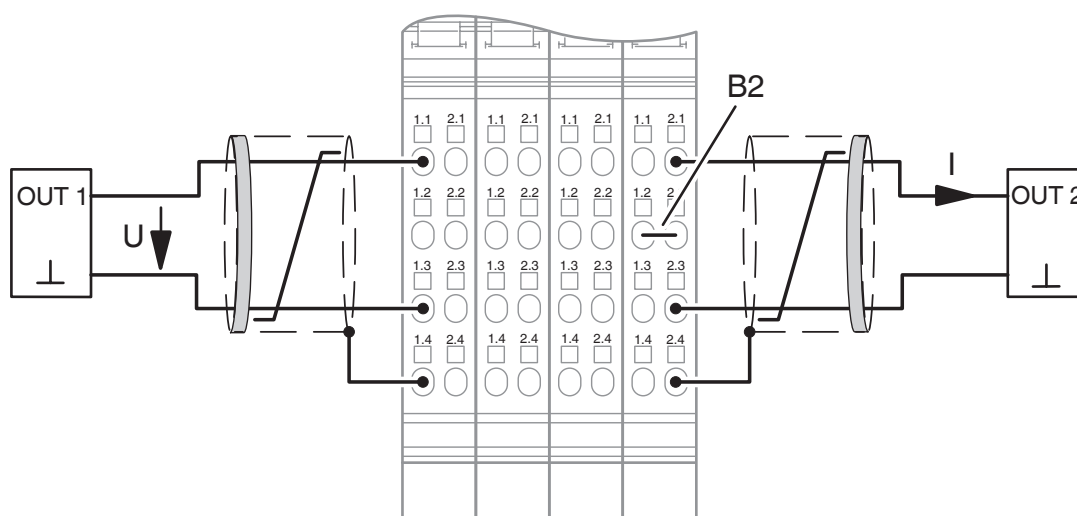


Drawings

Dimensional drawing



Connection diagram



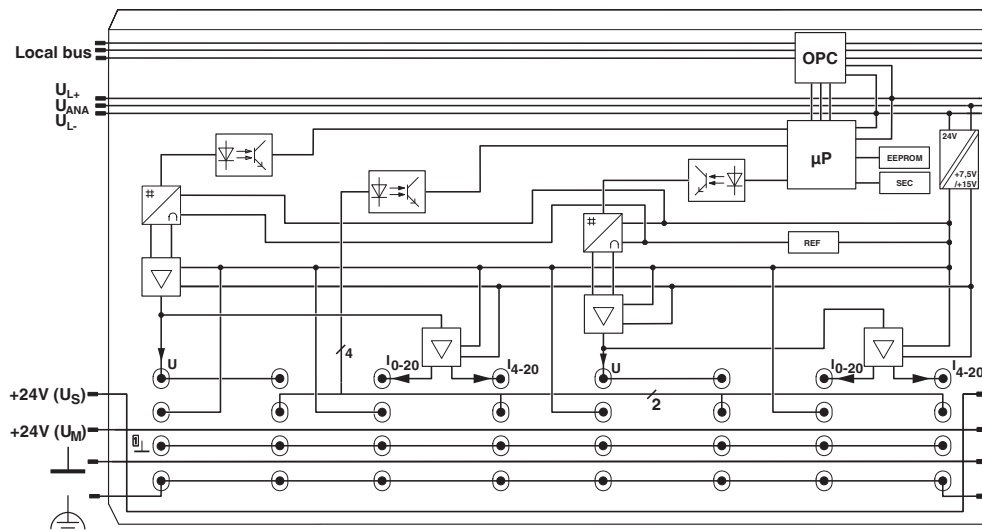
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Block diagram



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Approvals

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cUL Recognized
Approval ID: FILE E 140324



UL Recognized
Approval ID: FILE E 140324



EAC
Approval ID: TR TS_D_01921-19



DNV GL
Approval ID: TAA00000BN



BV
Approval ID: 20977/C0 BV

BSH

Approval ID: 658a



RINA
Approval ID: ELE121121XG

ABS

Approval ID: 22-2226444-PDA

UAE-RoHS

Approval ID: 22-04-13078



cUL Listed
Approval ID: FILE E 199827



UL Listed
Approval ID: FILE E 199827

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UL Listed
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Classifications

ECLASS

ECLASS-11.0	27242601
ECLASS-12.0	27242601
ECLASS-13.0	27242601

ETIM

ETIM 9.0	EC001596
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UNSPSC

UNSPSC 21.0	32151600
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	05a70494-6ebe-4194-a771-484a50280449

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Accessories

IB IL AO/CNT-PLSET - Connector set

2732664

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Connector set

IB IL SCN-6 SHIELD - Inline shield connector

2726353

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Inline shield connector

IB IL SCN-8 - Inline connector

2726337

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Connector, for digital 1, 2 or 8-channel Inline terminals

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IB IL SCN-8-CP - Inline connector

2727608

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Inline connector, colored



IB IL FIELD 2 - Marking field

2727501

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Marking field, width: 12.2 mm



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ESL 62X10 - Insert strip

0809492

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Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems, CMS-P1-PLOTTER, mounting type: insert, lettering field size: 62 x 10 mm, Number of individual labels: 72



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