

ILB S3 AI4 AO2-2TX - I/O module



2692076

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Inline Block IO analog input/output module, Sercos III, inputs: 0 - 20 mA, 4 - 20 mA, ± 20 mA, 0 - 5 V, ± 5 V, 0 - 10 V, ± 10 V, Pt 100, Pt 1000, Ni 1000..., outputs: 0 - 5 V, ± 5 V, 0 - 10 V, ± 10 V, 0 - 20 mA, ± 20 mA, 4 - 20 mA, 2-, 3-, 4-conductor connection

Product description

The multifunctional, analog Inline Block IO modules can be used universally. The four inputs either offer the difference measured between analog current / voltage signals or the option of connecting resistance thermometers (RTDs). Furthermore, the current or voltage actuators can be connected at the two outputs. In addition, all channels are equipped with shield connections as a standard and are provided with the 2, 3 or 4-conductor system. The analog signals are made available with a resolution of 16 bits.

The plugs 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 proven ZBFM-6... Zack marker strip for labeling the terminal points.

Your advantages

- Connection of sensors in 2-, 3-, and 4-conductor technology
- 4 shielded analog differential signal inputs or 4 universal RTD inputs
- 4 voltage measuring ranges and 3 current measuring ranges
- Adjustable filter times
- Connection of actuators in 2-conductor technology
- Short-circuit-proof outputs
- 2 shielded analog signal outputs with 4 voltage and 3 current ranges
- Sensor supply with channel-specific integrated short-circuit and overload protection

Commercial data

Item number	2692076
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DRI1AC
GTIN	4046356303224
Weight per piece (including packing)	544 g
Weight per piece (excluding packing)	465 g
Customs tariff number	85176200
Country of origin	DE

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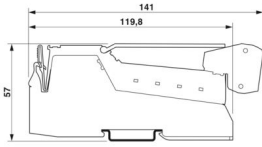


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Technical data

Dimensions

Dimensional drawing	
Width	156 mm
Height	141 mm
Depth	57 mm

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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Material specifications

Color	green
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Interfaces

Inline local bus

Connection method	RJ45 jack, shielded
Transmission speed	100 Mbps
Transmission physics	Copper

Input data

Analog: General

Input name	Analog inputs
Number of inputs	max. 4 (Differential inputs, voltage or current can be chosen separately)
A/D conversion time	typ. 180 μ s
Connection method	Spring-cage connection
Connection technology	2-, 3-, 4-conductor (shielded)
Current input signal	0 mA ... 20 mA 4 mA ... 20 mA -20 mA ... 20 mA
Input resistance current input	typ. 107 Ω
Voltage input signal	0 V ... 5 V -5 V ... 5 V 0 V ... 10 V

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	-10 V ... 10 V
Input resistance of voltage input	typ. 276 kΩ
A/D converter resolution	15 bit
Data formats	IB IL, S7-compatible
Limit frequency (3 dB)	120 Hz (default for 4.5 ms filter)
	450 Hz (for 1.1 ms filter)
Measured value resolution	16 bits (15 bits + sign bit)

Analog: Voltage inputs

Number of inputs	4 (differential inputs, voltage)
Voltage input signal	0 V ... 5 V
	-5 V ... 5 V
	0 V ... 10 V
	-10 V ... 10 V
Input resistance of voltage input	typ. 276 kΩ
Protective circuit	Overload protection, short-circuit protection of sensor supply

Analog: Current inputs

Number of inputs	4 (Differential inputs, current)
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
Input resistance current input	typ. 107 Ω
Data formats	IB IL, standardized representation, S7 compatible
Protective circuit	Short-circuit protection for the sensor supply

Analog:

Input name	Analog RTD inputs
Number of inputs	4
Sensor types (RTD) that can be used	Pt 100, Pt 500, Pt 1000, Ni 100, Ni 1000, Ni 1000 L&G
Linear resistance measuring range	0 Ω ... 3200 Ω
	0 Ω ... 9500 Ω
Protective circuit	Overload protection, short-circuit protection of sensor supply

Output data

Analog:

Output name	Analog outputs
Connection method	Spring-cage connection
Connection technology	2-conductor (shielded)
Number of outputs	2
D/A conversion time	typ. 70 μs
D/A converter resolution	16 bit
Protective circuit	Short-circuit protection of outputs
Process data update	17 ms
	0 mA ... 20 mA

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Current output signal	4 mA ... 20 mA
	-20 mA ... 20 mA
Voltage output signal	0 V ... 5 V
	-5 V ... 5 V
	0 V ... 10 V
	-10 V ... 10 V
Load/output load voltage output	> 2 kΩ

Product properties

Product type	I/O component
Product family	Inline
Type	Block design
	Inline

Electrical properties

Potentials: Communications power (U_L)

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	max. 8 A
Current draw	max. 220 mA (AO-I nominal load)
	typ. 160 mA

Potentials: Sensor supply (U_S)

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Power supply	max. 8 A
Current draw	max. 220 mA (maximum full load)

Potentials

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Potentials

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Electrical isolation/isolation of the voltage ranges

Test voltage: Sercos III/logic area	500 V AC, 50 Hz, 1 min
Test voltage: Sercos III/analog I/O	500 V AC, 50 Hz, 1 min
Test voltage: Sercos III/communications power	500 V AC, 50 Hz, 1 min
Test voltage: Sercos III/initiator supply	500 V AC, 50 Hz, 1 min
Test voltage: Sercos III/functional ground	500 V AC, 50 Hz, 1 min
Test voltage: Logic/analog I/O	500 V AC, 50 Hz, 1 min

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Test voltage: Logic area/initiator supply	500 V AC, 50 Hz, 1 min
Test voltage: Logic area/functional ground	500 V AC, 50 Hz, 1 min
Test voltage: Analog I/O/communications power	500 V AC, 50 Hz, 1 min
Test voltage: Analog I/O/initiator supply	500 V AC, 50 Hz, 1 min
Test voltage: Functional ground/analog I/O (isolating distance)	500 V AC, 50 Hz, 1 min
Test voltage: Functional ground/communications power	500 V AC, 50 Hz, 1 min
Test voltage: Functional ground/initiator supply	500 V AC, 50 Hz, 1 min

Connection data

Connection technology

Connection name	Inline connector
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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 ... 60 °C
Degree of protection	IP20
Air pressure (operation)	70 kPa ... 108 kPa (up to 3500 m above sea level)
Air pressure (storage/transport)	70 kPa ... 108 kPa (up to 3500 m above sea level)
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	10 % ... 85 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)

Mechanical test

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	30g

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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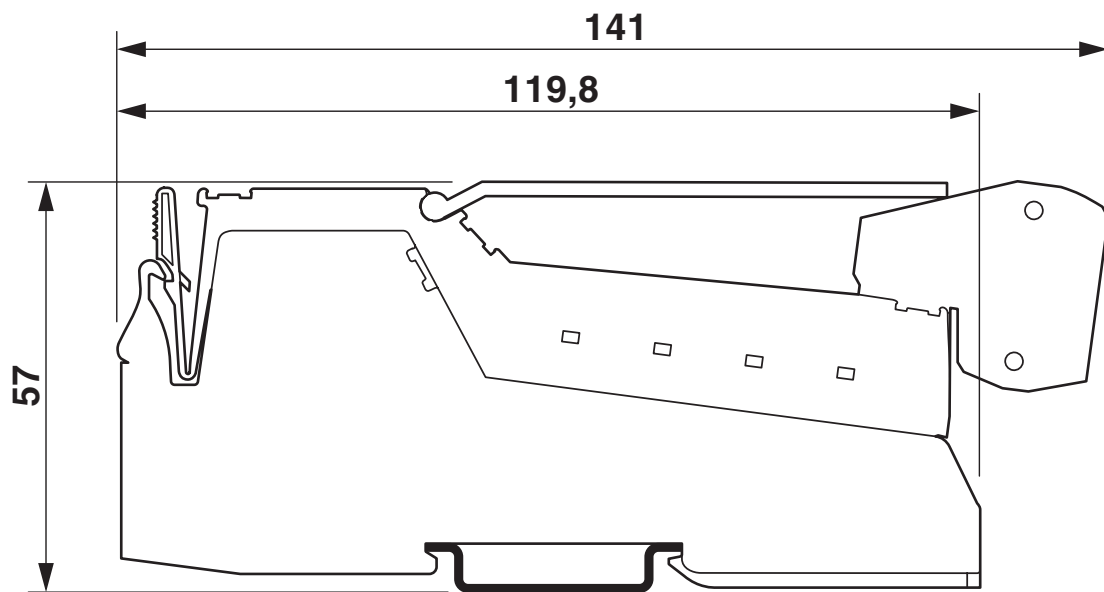
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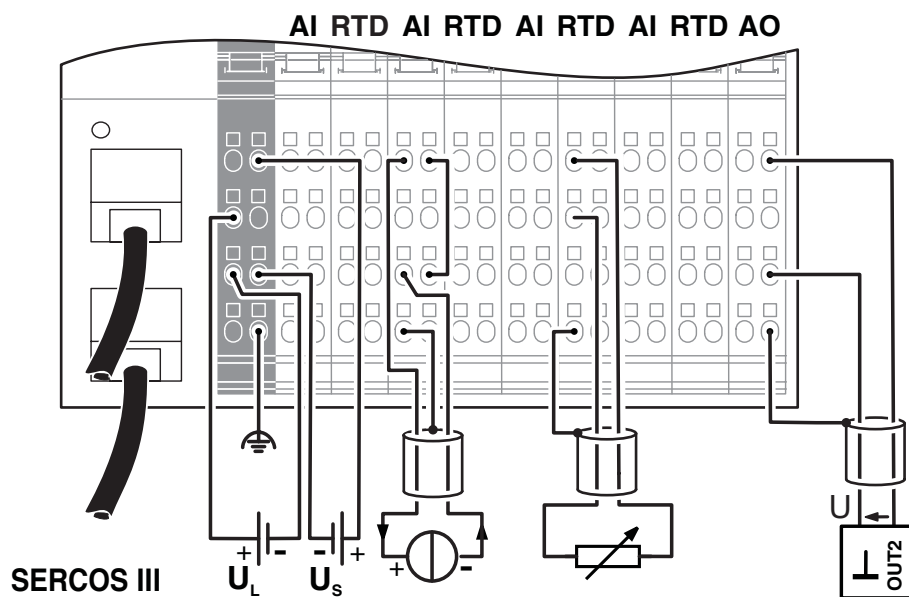
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Drawings

Dimensional drawing



Connection diagram



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Environmental product compliance

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com