

Inline terminal - IB IL AO 4/I/4-20-ECO - 2702497

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Inline ECO, Analog output terminal, Analog outputs: 4, 4 mA ... 20 mA, connection method: 2-wire, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connector

Product Description

The terminal is designed for use within an Inline station.

It is used to output analog current signals.

The output values are depicted in standardized representation format.


Inline ECO terminals are approved for the temperature range from 0°C to +55°C. The electronics base and Inline connector are supplied as standard.

Your advantages

- 4 analog output channels
- Connection of actuators in 2-wire technology
- Current range: 4 mA ... 20 mA
- Data format: standardized representation
- Resolution: 12 bits
- Diagnostic indicator



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 204499
GTIN	4055626204499
Weight per Piece (excluding packing)	84.100 g
Custom tariff number	85389091
Country of origin	Germany

Technical data

Note

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

Inline terminal - IB IL AO 4/I/4-20-ECO - 2702497

Technical data

Dimensions

Width	12.2 mm
Height	119.8 mm
Depth	71.5 mm

Ambient conditions

Ambient temperature (operation)	0 °C ... 55 °C (see "Derating" table in the data sheet)
Ambient temperature (storage/transport)	-25 °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
Color	green
Net weight	84.1 g
Note on weight specifications	with connector
Diagnostics messages	Failure of the internal I/O supply I/O error message sent to the bus coupler
	Checksum error I/O error message sent to the bus coupler

Interfaces

Designation	Inline local bus
No. of channels	2
Connection method	Inline data jumper
Transmission speed	500 kbps

Inline potentials

Designation	Communications power (U_L)
Supply voltage	7.5 V DC (via voltage jumper)
Current consumption	typ. 40 mA
	max. 50 mA
Designation	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 consumption	typ. 65 mA
	max. 85 mA
Power consumption	typ. 1.8 W

Analog outputs

Number of outputs	4
Connection technology	2-wire
Note regarding the connection technology	shielded, twisted pair

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Technical data

Analog outputs

Output name	Analog outputs
D/A converter resolution	12 bit
Type of protection	Short-circuit and overload protection
	Transient protection
Protective circuit/component	electronic
	Suppressor diode
Data formats	Standardized representation
Representation of output values	16 bits
Process data update	< 10 ms
Current output signal	4 mA ... 20 mA
Load/output load current output	< 300 Ω
Precision	typ. 0.1 %
	max. 0.3 %

Electrical isolation

Test section	Bus logic (local bus, communications power) 500 V AC 50 Hz 1 min.
	Analog I/O 500 V AC 50 Hz 1 min.
	Functional earth ground 500 V AC 50 Hz 1 min.

Standards and Regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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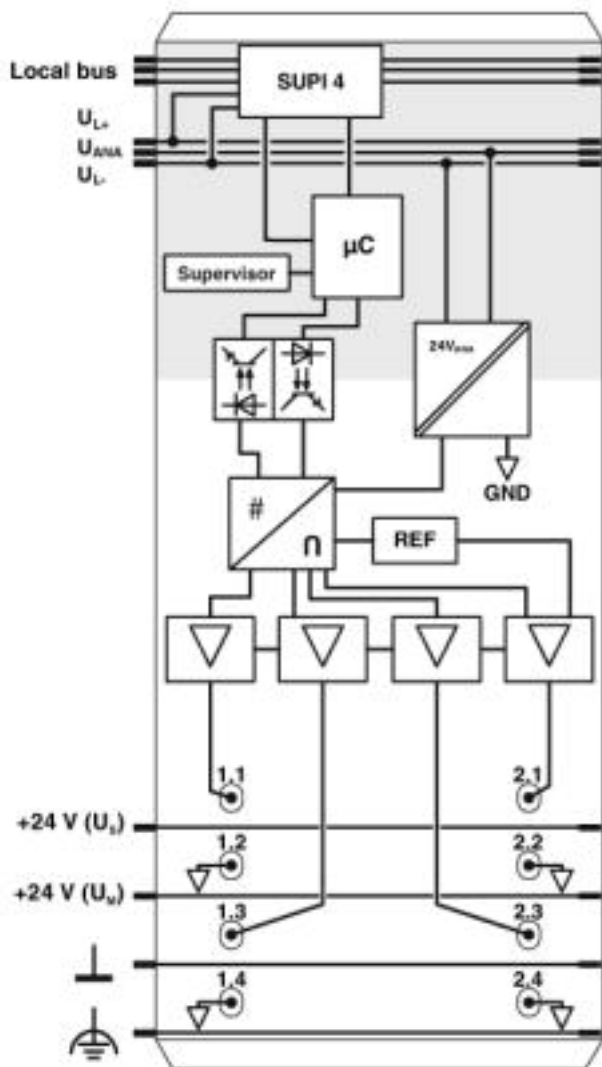
Environmental Product Compliance

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

Drawings

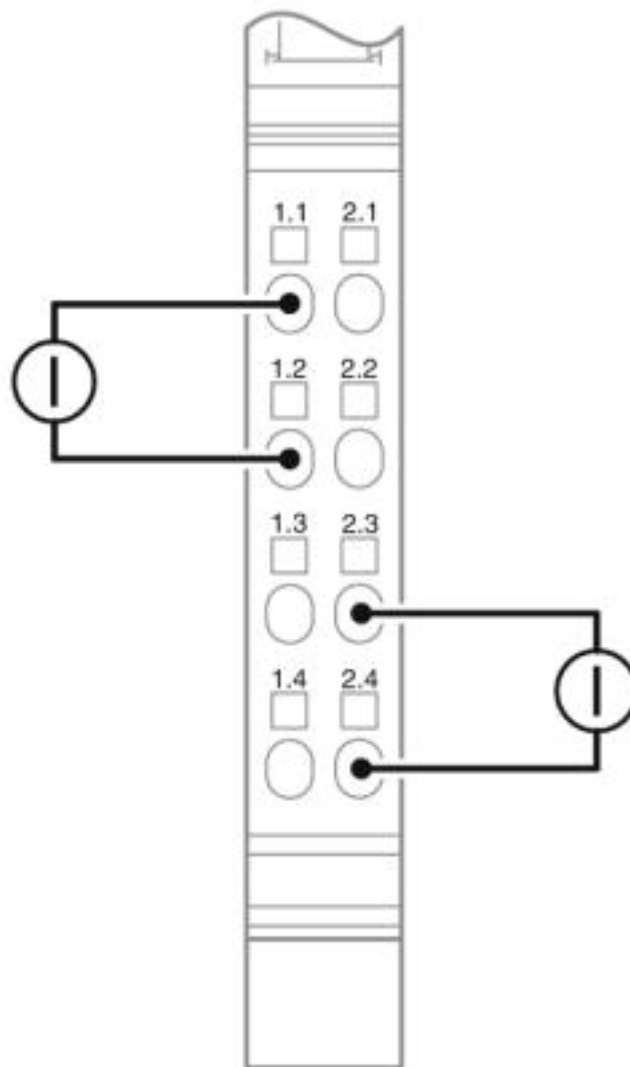
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Block diagram



Internal wiring of the terminal points

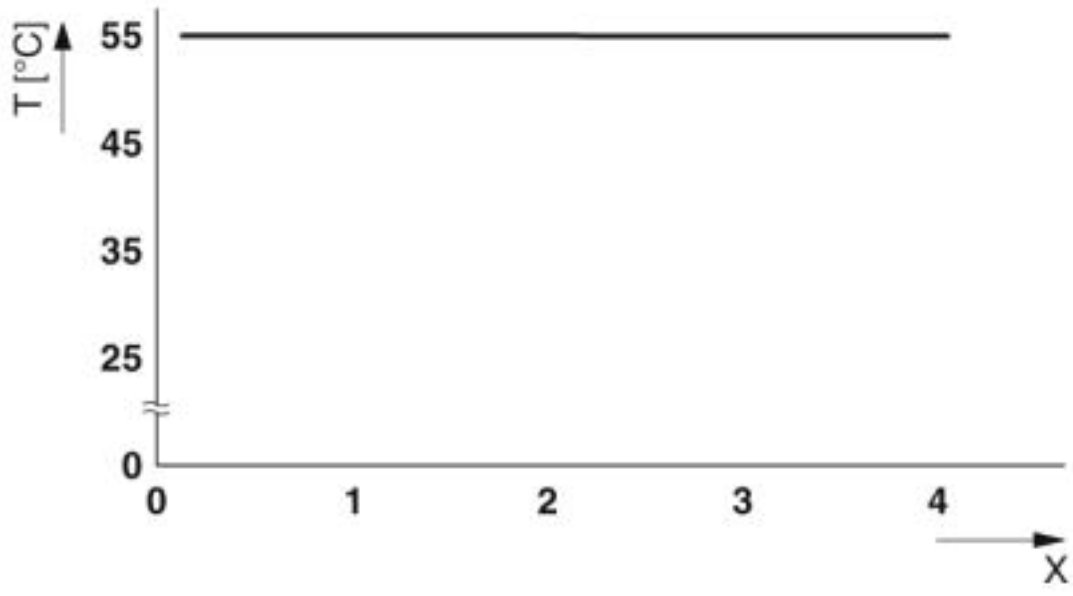
Connection diagram



Actuator connection

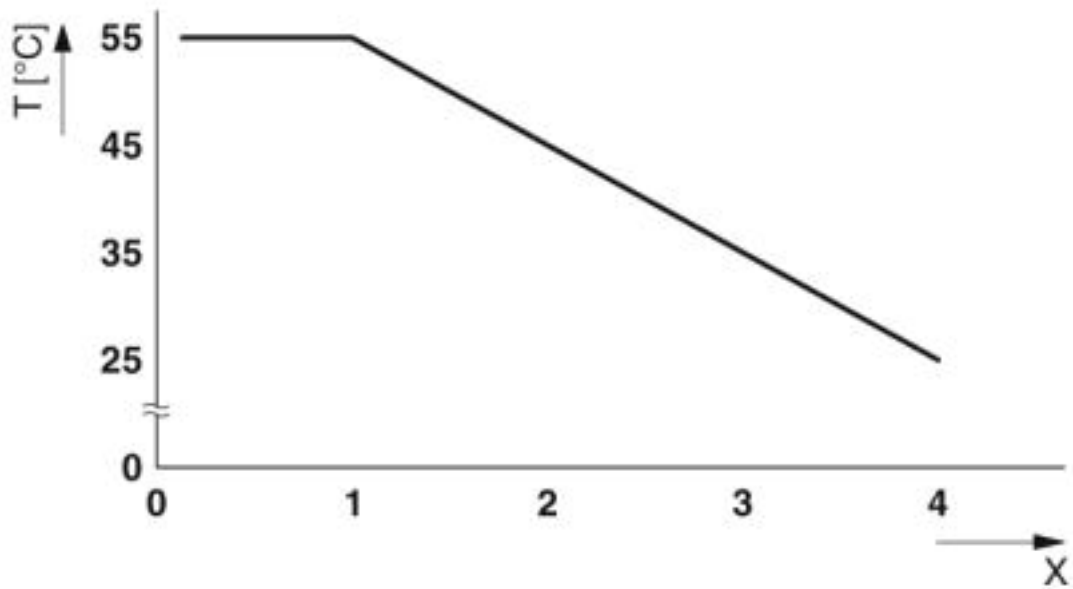
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Diagram



Derating with active convection

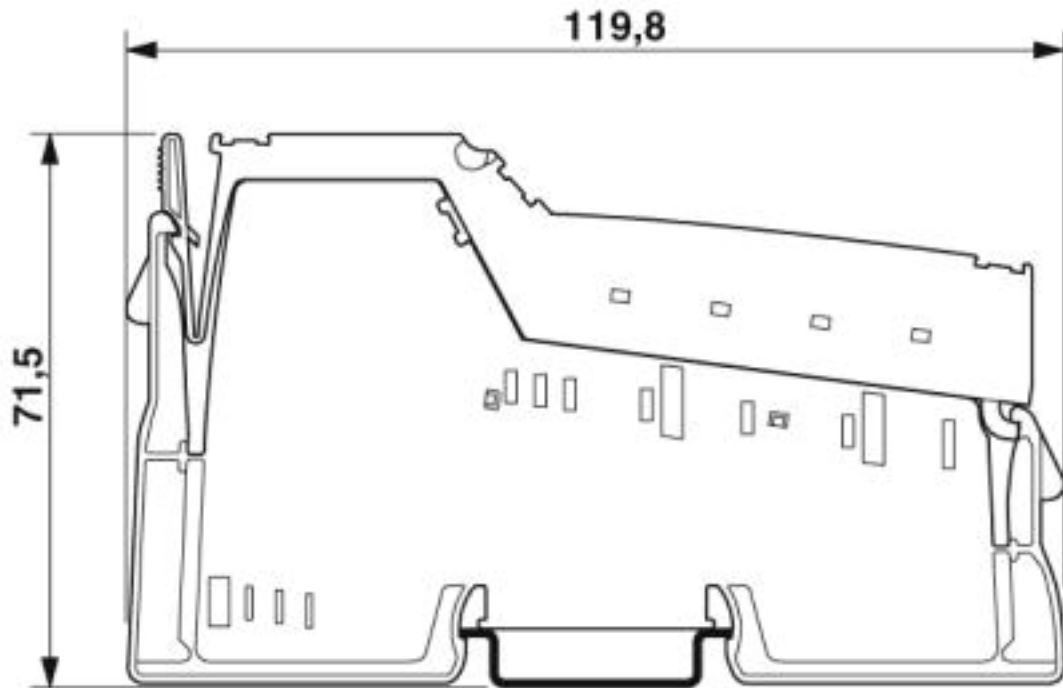
Diagram



Derating without active convection

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Dimensional drawing



Classifications

eCl@ss

eCl@ss 4.0	27250303
eCl@ss 4.1	27250303
eCl@ss 5.0	27250303
eCl@ss 5.1	27242601
eCl@ss 6.0	27242600
eCl@ss 7.0	27242601
eCl@ss 8.0	27242601
eCl@ss 9.0	27242601

ETIM

ETIM 3.0	EC001596
ETIM 4.0	EC002498
ETIM 5.0	EC001596
ETIM 6.0	EC001596
ETIM 7.0	EC001596

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015

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Classifications

UNSPSC

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 Listed / cUL Listed / cULus Listed

Ex Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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cULus Listed			
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Accessories

Accessories

Installation terminal block

Connection terminal block - AKG 4 GNYE - 0421029



Connection terminal block, connection method: Screw connection, load current: 41 A, cross section: 0.5 mm² - 6 mm², width: 7 mm, color: green-yellow

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Accessories

Connection terminal block - AKG 4 BK - 0421032



Connection terminal block, connection method: Screw connection, load current: 41 A, cross section: 0.5 mm² - 6 mm², width: 7 mm, color: black

Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Neutral conductor rail

Neutral busbar - NLS-CU 3/10 SN 1000MM - 0402174



Neutral busbar, width: 10 mm, height: 3 mm, DIN VDE 0611-4: 1991-02, material: Copper, tin-plated, length: 1000 mm, color: silver

Pick-off terminal block

Connection terminal block - AK 4 - 0404017



Connection terminal block, connection method: Screw connection, load current: 41 A, cross section: 0.5 mm² - 6 mm², width: 7 mm, color: silver

Plug

Inline connector - IB IL SCN-8 - 2726337

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



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Accessories

Shield connection clamp

Shield connection clamp - SK 8 - 3025163



Shield connection clamp, for shield on busbars, contact resistance <math>< 1 \text{ m}\Omega</math>

Shield connection clamp - SK 14 - 3025176



Shield connection clamp, for shield on busbars, contact resistance <math>< 1 \text{ m}\Omega</math>

Shield connection clamp - SK 20 - 3025189



Shield connection clamp, for shield on busbars, contact resistance <math>< 1 \text{ m}\Omega</math>

Shield connection clamp - SK 35 - 3026463



Shield connection clamp, for shield on busbars, contact resistance <math>< 1 \text{ m}\Omega</math>

Support

Support bracket - AB-SK - 3025341



Support bracket for busbars

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Accessories

Support bracket - AB-SK 65 - 3026489



Support bracket, Bracket for busbars, set every 20 cm, length: 95.5 mm, width: 6.2 mm, number of positions: 1, color: gray

Support bracket - AB-SK/E - 3026476



Support bracket, Bracket for busbars, set every 20 cm, length: 10 mm, width: 56 mm, height: 20 mm, number of positions: 2, color: silver