

IB ST 24 AI 4/EF - I/O module

2700838

<https://www.phoenixcontact.com/il/products/2700838>



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.



INTERBUS-ST analog input module, 4 inputs, 0 - 10 V, ± 10 V, 0 - 20 mA, 4 - 20 mA, IP20 protection, consisting of: terminal part with screw connection and module electronics

Product Description

The module is designed for use within an ST station.
It is used to acquire analog voltage and current signals.

Your advantages

- 4 analog, differential input channels for the connection of either voltage or current signals
- Connection of sensors in 2-, 3-, and 4-conductor technology
- Sensor supply +15 V DC

Commercial Data

Item number	2700838
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	DRI341
Catalog Page	Page 165 (C-6-2019)
GTIN	4046356660648
Weight per Piece (including packing)	585.1 g
Weight per Piece (excluding packing)	585.1 g
Customs tariff number	85389091
Country of origin	DE

Technical Data

Dimensions

Width	118 mm
Height	116 mm
Depth	117 mm

Interfaces

ST local bus

No. of channels	2
Connection method	ST local bus connector
Transmission speed	500 kbps
Transmission physics	Copper

System properties

Module

ID code (dec.)	126
ID code (hex)	7E
Length code (hex)	4
Length code (dec)	4
Input address area	8 Byte
Output address area	0 Byte
Register length	8 Byte

Input data

Analog

Input name	Analog inputs
Number of inputs	max. 4 (differential inputs, voltage or current)
A/D conversion time	max. 10 µs (per channel)
Connection technology	2-, 3-, 4-conductor (shielded)
Measuring principle	Successive approximation
Measured value representation	16 bit two's complement

Analog

Number of inputs	4 (differential inputs, voltage)
A/D converter resolution	12 bit (4096 steps; 4.88 mV/quantization step (BP mode); 2.44 mV/quantization step (SF and SF4 mode))
Voltage input signal	0 V ... 10 V (SF and SF4 mode) -10 V ... 10 V (Mode BP)
Input resistance of voltage input	200 kΩ
Common mode voltage range signal - ground	-35 V DC ... 35 V DC

Analog

Number of inputs	4 (Differential inputs, current)
A/D conversion time	max. 10 μ s
A/D converter resolution	12 bit (4096 steps; 4.88 μ A/quantization step (SF mode); 3.91 μ A (SF4 mode); 7.8 μ A (BP mode))
Current input signal	0 mA ... 20 mA (SF mode) 4 mA ... 20 mA (BP and SF4 mode)
Input resistance current input	50 Ω

Product properties

Type	modular INTERBUS Smart Terminal
Product type	I/O component
Operating mode	Process data mode with 4 words
Diagnostics messages	Failure of the internal I/O supply I/O error message sent to the bus coupler F1 fuse failure I/O error message sent to the bus coupler I/O supply failure I/O error message sent to the bus coupler

Electrical properties

Supply: Module electronics

Connection method	ST local bus connector
Designation	Communications power
Supply voltage	9 V DC (from the ST local bus)
Current consumption	typ. 54 mA max. 80 mA
Power consumption	typ. 0.5 W

Supply: Periphery supply voltage

Designation	U_S
Supply voltage	24 V DC
Supply voltage range	19.5 V DC ... 30.2 V DC (including all tolerances, including ripple)
Current consumption	typ. 45 mA ($I_b = 0$ mA (I_b = total current for supplying passive sensors for all channels)) typ. 120 mA ($I_b = 100$ mA (I_b = total current for supplying passive sensors for all channels))

Supply: Passive sensor supply

Designation	U_B (generated internally)
Supply voltage	15 V ± 6 %
Current consumption	max. 100 mA (Total for all channels)

Connection data

Connection technology

Connection name	Termination block
-----------------	-------------------

Conductor connection

IB ST 24 AI 4/EF - I/O module



2700838

<https://www.phoenixcontact.com/il/products/2700838>

Connection method	Screw connection
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12
Stripping length	8 mm

Termination block

Connection method	Screw connection
Conductor cross section, rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross section, flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12
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)	80 kPa ... 106 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)	80 kPa ... 106 kPa (up to 2000 m above sea level)
Ambient temperature (storage/transport)	-25 °C ... 70 °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
---------------	-------------------

IB ST 24 AI 4/EF - I/O module

2700838

<https://www.phoenixcontact.com/il/products/2700838>



Classifications

ECLASS

ECLASS-9.0	27242601
ECLASS-10.0.1	27242601
ECLASS-11.0	27242601

ETIM

ETIM 8.0	EC001596
----------	----------

UNSPSC

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

IB ST 24 AI 4/EF - I/O module

2700838

<https://www.phoenixcontact.com/il/products/2700838>



Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

IB ST 24 AI 4/EF - I/O module

2700838

<https://www.phoenixcontact.com/il/products/2700838>



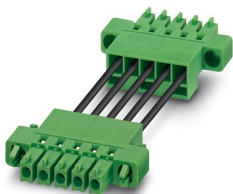
Accessories

IB ST LBC - Bridge

2836492

<https://www.phoenixcontact.com/il/products/2836492>

Spare local bus cable, for INTERBUS-ST modules



EB 84 IB ST BU - Insertion bridge

2836269

<https://www.phoenixcontact.com/il/products/2836269>

Insertion bridges, divisible, isolated comb spine, color blue, 84-pos.



IB ST 24 AI 4/EF - I/O module

2700838

<https://www.phoenixcontact.com/il/products/2700838>



EB 84 IB ST RD - Insertion bridge

2836272

<https://www.phoenixcontact.com/il/products/2836272>

Insertion bridges, divisible, isolated comb spine, color red, 84-pos.



IBS TR5 0,2AT - Fuse

2753452

<https://www.phoenixcontact.com/il/products/2753452>

Replacement fuse, for INTERBUS-ST modules



IB ST 24 AI 4/EF - I/O module

2700838

<https://www.phoenixcontact.com/il/products/2700838>



IBS TR5 0,4AT - Fuse

2753478

<https://www.phoenixcontact.com/il/products/2753478>

Replacement fuse, for INTERBUS-ST modules



IB STME 24 AI 4/EF - Replacement electronics module

2701955

<https://www.phoenixcontact.com/il/products/2701955>

INTERBUS-ST analog input module, 4 inputs, 0 - 10 V, ± 10 V, 0 - 20 mA, 4 - 20 mA, degree of protection IP20, comprising: Module electronics only



Phoenix Contact 2023 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT Israel Ltd.
P.O.B. 1799 Industrial Park Hasharon
Quadima 60920
+972-9-8915700
info@phoenixcontact.co.il