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Inline, Digital input, Digital inputs: 16, 24 V DC, 3-conductor, Transmission speed in the local bus 2 MBit/s, Degree of protection IP20, including Inline connectors and marking fields

The illustration shows the version IB IL 24 DI 16

Product Description

The digital Inline input terminals are designed for the connection of digital signals as are supplied from control switches, limit switches or proximity switches.

All the typical applications are covered by the standard automation terminals.

The I/O equipment is connected by a simple or an extended Inline connector, depending on the number of channels. The multi-wire connection method is available in both cases.

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

Product Features

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



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	234.5 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	
	Utilization restriction	area

Dimensions



Technical data

Dimensions

Width	48.8 mm
Height	140.5 mm
Depth	71.5 mm

Ambient conditions

Ambient temperature (operation)	-25 °C 55 °C
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
Net weight	122 g
Note on weight specifications	with connectors
Operating mode	Process data mode with one word

Interfaces

Fieldbus system	Lokalbus
Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	2 MBit/s

Power supply for module electronics

Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC 30 V DC (including all tolerances, including ripple)
Supply current	80 mA
Communications power U _L	7.5 V (via voltage jumper)
Current consumption	max. 80 mA (from the local bus)
Power consumption	max. 0.6 W (at U _L)

Inline potentials

Communications power U _L	7.5 V DC (via voltage jumper)
Current consumption from U _L	max. 80 mA
Main circuit supply U _M	24 V DC
Segment circuit supply U _S	24 V DC (nominal value)
Current consumption from U _s	max. 4 A
Power consumption	max. 0.6 W (at U _L)



Technical data

Digital inputs

Input name	Digital inputs
Description of the input	EN 61131-2 type 1
Connection method	Spring-cage connection
	3-conductor
Number of inputs	16
Typical response time	< 1 ms
Protective circuit	Short-circuit and overload protection
Input voltage	24 V DC (via voltage jumper)
Input voltage range "0" signal	-3 V DC 5 V DC
Input voltage range "1" signal	15 V DC 30 V DC

Standards and Regulations

Test section	5 V supply, incoming remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min.
	5 V supply, outgoing remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min.
	7.5 V supply (bus logics)/24 V supply (I/O) 500 V AC 50 Hz 1 min.
	24 V supply (I/O) / functional earth ground 500 V AC 50 Hz 1 min.
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

Classifications

eCl@ss

eCl@ss 4.0	27250302
eCl@ss 4.1	27250302
eCl@ss 5.0	27250302
eCl@ss 5.1	27242604
eCl@ss 6.0	27242604
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

ETIM

ETIM 2.0	EC001430
ETIM 3.0	EC001599
ETIM 4.0	EC001599
ETIM 5.0	EC001599



Classifications

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	43201404

UNSPSC 12.01	43201404
UNSPSC 13.2	43201404
Approvals	
Approvals	
Approvals	
UL Listed / cUL Listed / cULus Listed	
Ex Approvals	
Approvals submitted	
Approval details	
UL Listed (I)	
cUL Listed *	
cULus Listed [®]	

Accessories

Accessories

Connector set



Accessories

Connector set - IB IL DI16-PLSET/ICP - 2860989



Connector set, for IB IL DI 16, copper, colored identification.

Front adapter

Front adapters - FLKM 14-PA-INLINE/IN16 - 2302751



VARIOFACE front adapter for Inline modules, for transferring 16 (2 x 8) digital input signals.

Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Labeling field - IB IL FIELD 8 - 2727515

Labeling field, width: 48.8 mm



Plug



Accessories

Inline connector - IB IL SCN-12 - 2726340



Connector, for digital 4 or 16-channel Inline terminals

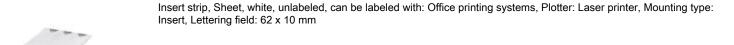
Inline connector - IB IL SCN-12-ICP - 2727611



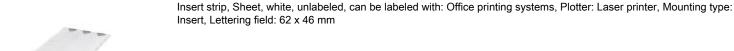
Connector, color coded, for digital 4, or 16-channel Inline input terminals

Terminal marking

Insert strip - ESL 62X10 - 0809492



Insert strip - ESL 62X46 - 0809502



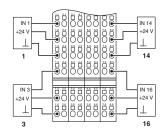
Connector set - IB IL DI/DO16-PLSET - 2860976

Connector set, for IB IL DI/DO 16, copper, consecutively numbered, no colored identification,

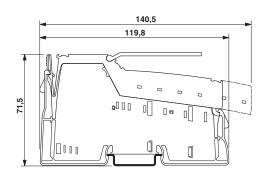
Drawings



Connection diagram



Dimensional drawing



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