

## C-DIAS Digital Input Module with 16 inputs

**CDI 161**

The CDI 161 is equipped with 16 inputs and one +24V level for reading the signal states "0" and "1". Appropriate input filters are available to suppress noise impulses occurring in the signal leads. Optional there is a version with LEDs available.



## Technical Data

### Input specifications

Number	16	
Input voltage	Typically +24V	Maximum +30V
Signal levels	Low: <+8V	High: >+14V
Switching threshold	Typically +11V	
Input current	5mA at +24V	
Input delay	Typically 5ms	
Status display	Optional	

## Electrical requirements

Supply of the C-DIAS bus	+5V	
Current consumption on the C-DIAS bus (+5V supply)	Typically 1mA	Maximum 3mA

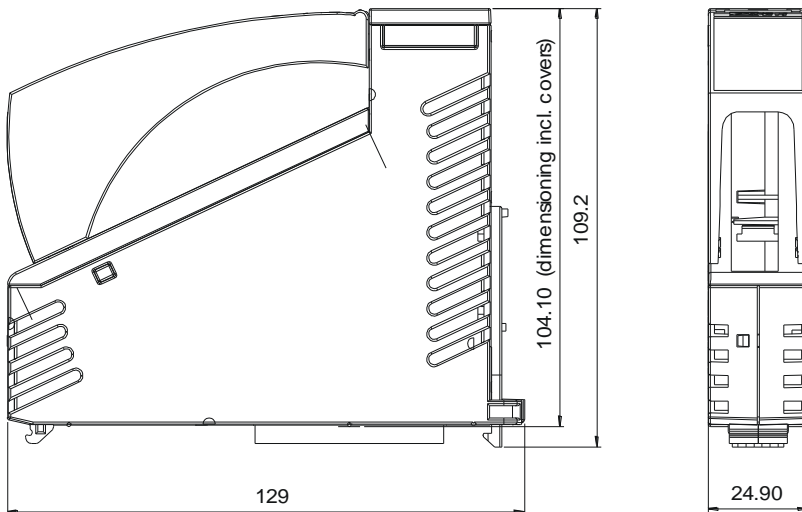
## Miscellaneous

Article number	12-006-161-O 12-006-161	(without status LEDs) (with status, green LED)
Module identification with EEPROM	\$00	Check sum xx
	\$01	Identification 123
	\$02	Module group 1
	\$03	Version 1
	\$04	Channels 16
	\$05	HW version 10
	\$10	Serial number
Hardware version	1.x	
Standardization	UL (E247993)	

## Environmental conditions

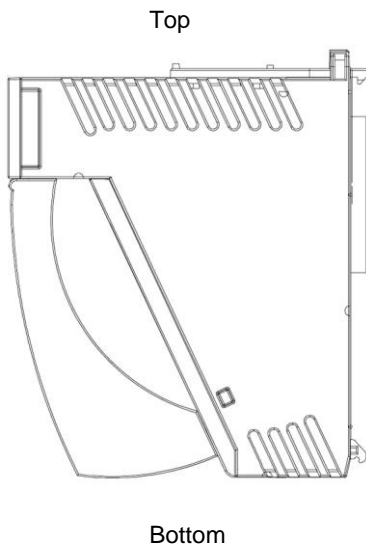
Storage temperature	-20 – +85°C	
Operating temperature	0 – +60°C	
Humidity	0 – 95%, without condensation	
EMV stability	In accordance with EN 61000-6-2 (industrial)	
Resistance to shocks	EN 60068-2-27	150m/s <sup>2</sup>
Protective system	EN 60529	IP 20

### Mechanical dimensions

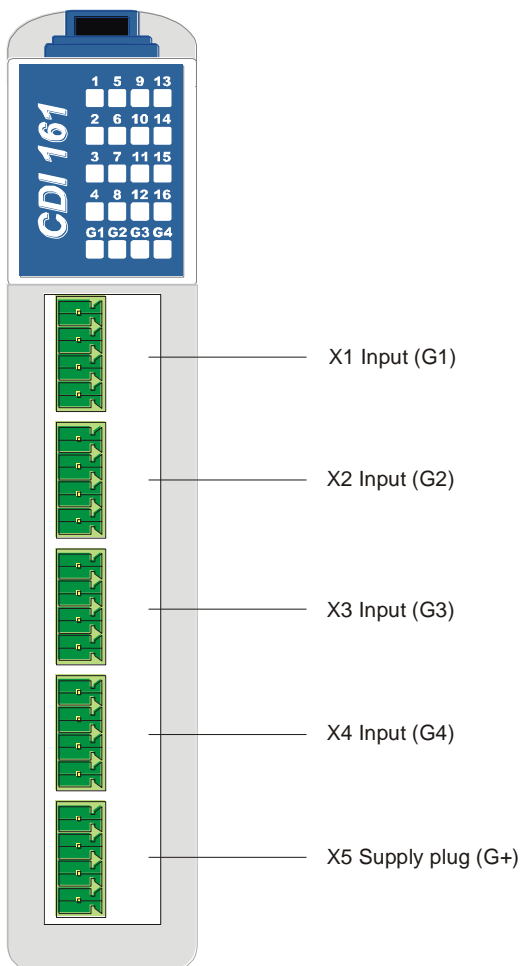


## Mounting position

To ensure optimal cooling of the module, the CSCP 011 must be mounted as shown (standing). For an angled mounting position, forced convection (cooling fan) must be used.



# Connections



**X1: Input plug (G1)**



Pin	Function
1	Input 1
2	Input 2
3	Input 3
4	Input 4

**X2: Input plug (G2)**



Pin	Function
1	Input 5
2	Input 6
3	Input 7
4	Input 8

**X3: Input plug (G3)**



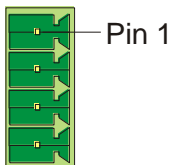
Pin	Function
1	Input 9
2	Input 10
3	Input 11
4	Input 12

**X4: Input plug (G4)**



Pin	Function
1	Input 13
2	Input 14
3	Input 15
4	Input 16

**X5: Supply plug (G+)**



Pin	Function
1	+24V
2	+24V
3	+24V
4	+24V

+24V are not used from the electronic.

**Useable connectors**

**Connector with spring clamp:**

Phoenix Contact: FK-MCP 1.5/ 4-ST-3.5

**Connector with screw clamp technique:**

Phoenix Contact: MC 1.5/ 4-ST-3.5

The complete C-DIAS plug set CKL 031 with spring clamp is available from Sigmatek with the article number 12-600-031.

## Wiring instructions

The input filters, which suppress noise impulses, allow deployment in rough environmental conditions. In addition, to guarantee problem free operation, careful wiring is recommended.

Please pay attention to the following guidelines:

- Avoid laying the input cables parallel to the load circuits
- Protective wiring of all safety coils (RC-network or recovery diodes)
- Correct earthing

The GND connection of the inputs and the GND connection of the power supply module must be connected to a common earthing bus bar, and these connection must be kept as short as possible.

**If possible, the earthing bus bar is to be connected to the earthing bus bar of the switch cabinet!**

**Si possible, la barrette de mise à terre doit être connecté au bornier de terre de l'armoire de commande!**



## Status displays



LED no.	LED colour	Meaning
1 – 16	green	Inputs 1 – 16
G1 – G4	---	not used

## Addressing

Address	Access		Function
16#00	READ	WORD	Input 1..16