



# DIBLO-T9

## Diode Array Module



*\* Device appearance may change based on the specific variant ordered. Mating connector not included in scope of delivery.*

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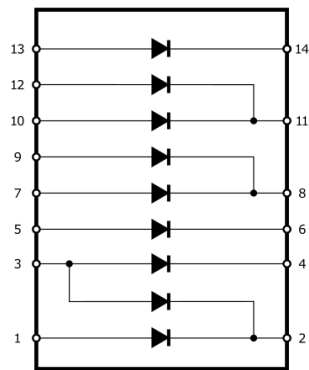
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Functionality and Features



Diode Array Module consisting of nine high voltage avalanche rectifier diodes, each able to withstand a repeated reverse voltage of 1600 V. Each diode alone can carry up to 1 A of continuous current. Total power dissipation across all diodes is limited to 4.5 W. Logical pin configuration and device functionality match that of the discontinued DIBLO-9, making this a suitable replacement for HBTB 585480 R0004.

Environment

Stresses exceeding these limits may lead to device malfunction or damage.

General

Height above sea level	AX (max. 2500m)	(EN 50125-1:2014 Tab. 1)
Operational temperature	OT4 (-40°C to +70°C)	(EN 50155:2017 Tab. 1)
Temperature rise on power on	ST1	(EN 50155:2017 Tab. 2)
Fast temperature changes	H1	(EN 50155:2017 Tab. 3)
Vibration and shock	Kat. 1, Class B	(EN 61373:2010)
Dirt and condensation	PD2 (light / non-conducting)	(EN 50124-1:2017 Tab. A.4)

Electrical

Electromagnetic compatibility                      passive elements only

Fire Protection

(Evaluated as grouped components according to EN 45545-2:2020)

	mounted inside of vehicle			mounted outside of vehicle		
	HL1	HL2	HL3	HL1	HL2	HL3
Combustible mass	25 g*	25 g*	25 g*	25 g*	25 g*	25 g*

\* 100% of combustible mass is rated according to R24.

A detailed report as well as test certificates are available upon request.

# Technical Data

## Diode Data

Repeated reverse voltage $V_{RRM}$	1600 V
Max. reverse current $I_R @ V_{RRM}$	0.7 mA
Max. continuous forward current $I_F$ of a single diode	1 A
Typ. forward voltage $V_F @ I_F$	0.8 V
Max. total continuous power dissipation (sum over all diodes, $V_F = 0.8 V$ )	4.5 W
Max. impulse current ( $t < 50 ms$ ) / A	30

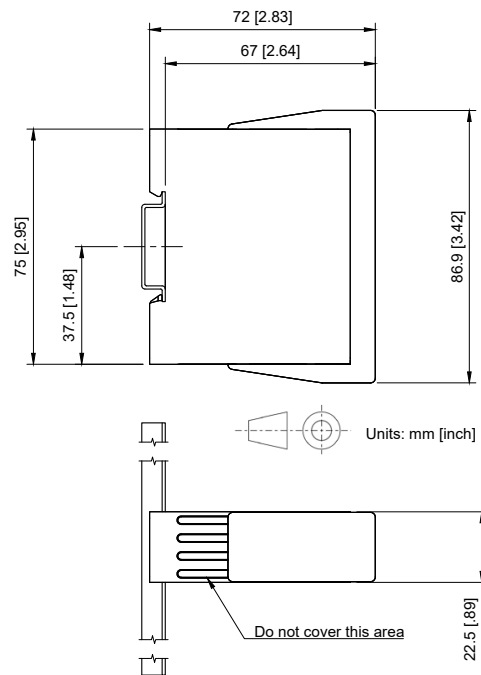
## Insulation Data

Between equipotential areas	1.5 kVDC / 1 min
Circuitry or any contact to DIN-rail or neighbouring device	1.5 kVDC / 1 min

## Mechanical Data

Weight	62g
Mounting options	35mm DIN rail
Mounting position	any
Required clearances:	
sides	none
top / bottom	5mm
Housing material:	
body	PC
cover	PA66
Protection class	IP30

## Dimensions



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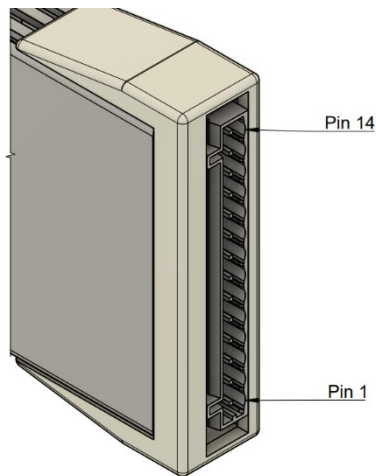
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# Other Information

## Connector



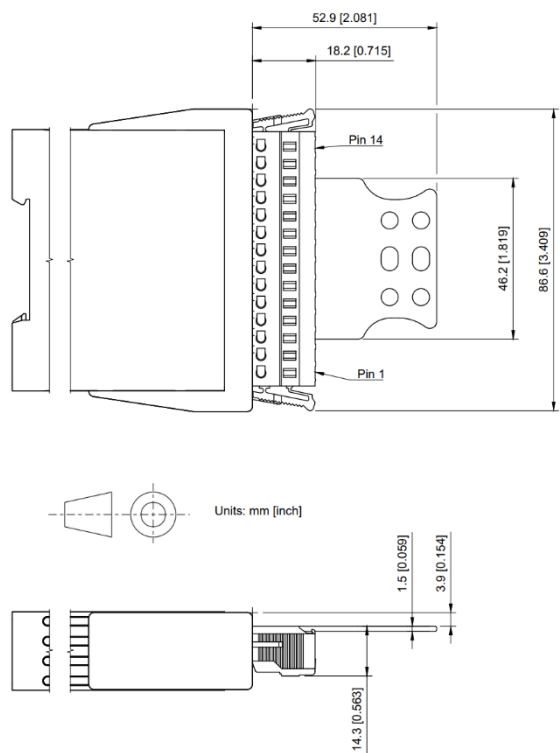
The device is equipped with a 14-pin connector of type WAGO MCS-MIDI (721 series). This series of connectors offers a variety of railway compatible connectors. There are options with retention clips, relief plates and coding elements. For this type of device, we recommend one of the connectors described below.

Mating connectors are not normally part of the scope of delivery. In case mating connectors are required, please specify this in your order.

The image to the left is for illustration only; the front-panel may look different, especially if there are additional elements such as buttons or LEDs.

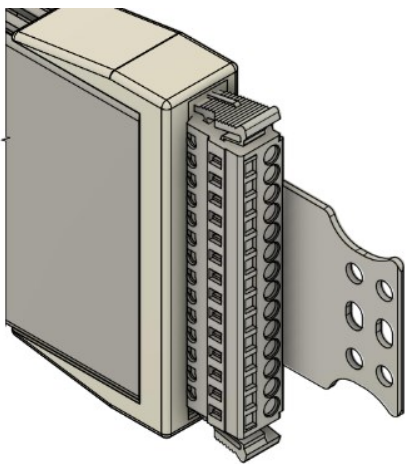
## Recommended Mating Connectors

### Single Row



For most applications we recommend using a single row connector with side-locking clips and a strain relief plate. For applications with limited space there is a connector without strain relief plate available. Connectors ordered from B+Z are delivered with printed numbers to indicate pins 1 through 14.

Art. Nr.: 561



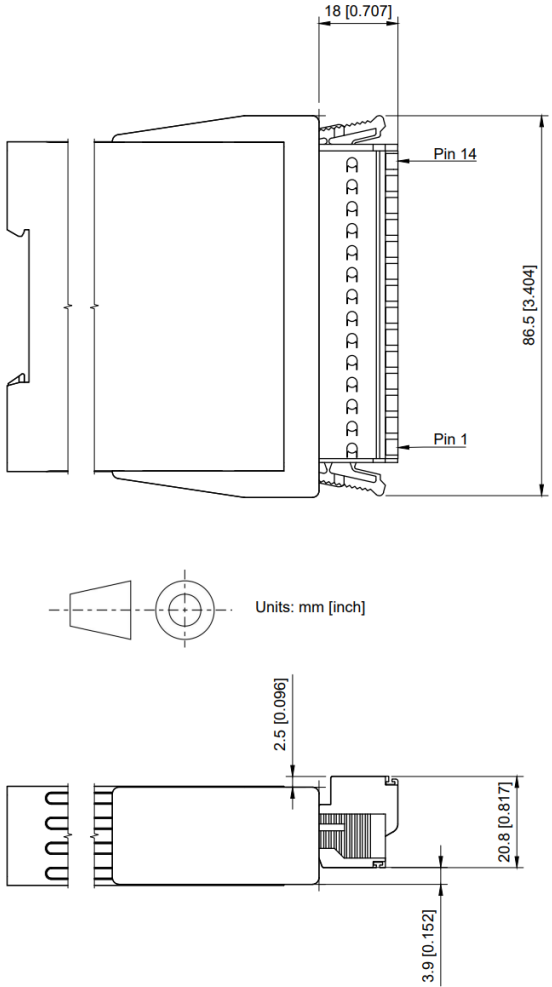
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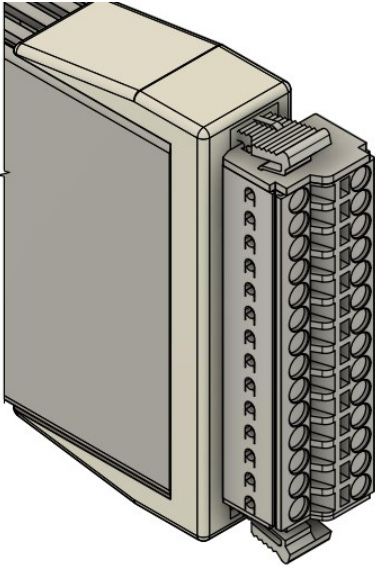
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Double Row



In more complex environments we recommend a connector with two rows. With this approach it is possible to connect two wires to any given port of the device. Connectors ordered from B+Z are delivered with printed numbers to indicate pins 1 through 14.

Art. Nr.: 565



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## Changes to this document

Date	Paragraph	Change
11.03.2024	Entire document	Update of datasheet layout. Translation from German to English.
11.03.2024	Title Page	Updated device image.
11.03.2024	Functionality and Features	Replaced connection diagram with a clearer version. No functional changes.
11.03.2024	Environment	Extended temperature range to OT4. Added more fine-grained detail on environmental requirements acc. to EN 50155.
11.03.2024	Fire Protection	Added information on combustible mass.
11.03.2024	Technical Data	Extended diode specific information. Added more details on insulation values.
11.03.2024	Other Information	Added details on front panel layout and mating connectors.
11.03.2024	Changes to this document	Added this table.



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