

BC-TK8iso-000

Type K interface to CAN



Single box (8 x temperature type K)



Two Boxes screwed together
(16 x temperature type K)

Features

- Amplifies the thermocouple voltage of up-to 8 connected type K sensors and sends the value onto the CAN Bus.
- This module is characterized by a high temperature range of -200°C up to 1200°C . Therefore it can be used for measurements in the climatic chamber as well as measurements of the exhaust gas temperature.
- Each channel is "galvanic isolated"
- The modular building ensures a maximum of flexibility.
- Single modules can be combined into a group of modules (e.g. in a temperature test stand). You can screw an unlimited number of single type K boxes together.

Technical specifications

Electrical characteristics		Mechanical characteristics				
Power supply	V DC	8-18	Dimensions	mm ³	100x55x30	
Current consumption @ 12 V	mA	150	Weight (incl. cables)	g	215	
Channels (temperature type K)		8	Housing material		Aluminum	
Galvanic isolation of the channels		Yes	Environmental data			
Isolation level			Ambient operating range	$^{\circ}\text{C}$	0 to +70	
between channels	V	100	Humidity	%	5 to 95	
between channel & supply voltage	V	100	Sealing class		IP 66	
Temperature range	$^{\circ}\text{C}$	$-200\dots+1200$	Vibration resistance			
Sampling rate	Hz	Max. 400	Shock	G	40	
Max. input voltage to internal ground	V	5		ms	10	
Resolution	bit	21	Vibration tested @	G	12	
Ordering information					Hz	1000
BC-TK8iso-000						

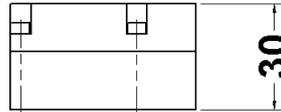
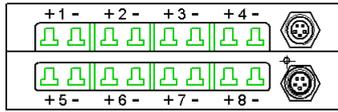
Use the following formula to convert the digits into physical values

Channel	Formula	Offset	Dimension
TYPK#1...8	$0.1 \cdot \text{digits}$	+0	$[^{\circ}\text{C}]$
	↳ signed value		

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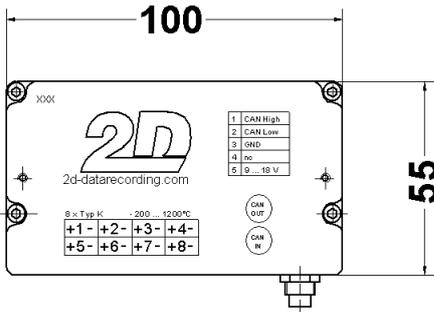
Dimensions



Mounting advice



You can screw an unlimited number of single type K boxes together. It's a possibility to connect the boxes mechanically



Connector layout

Connector type

CAN line, Binder 712 5pin

Pin	Name	Description	Color (standard)	Color (alternative)
1	CAN H	CAN High	white	orange
2	CAN L	CAN Low	green	brown
3	GND	Ground	black	black
4	n.c.	Not connected		
5	Vext	Power IN (8- 18 V)	red	red



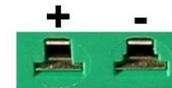
Binder 712, 5PM
Front view



Binder 712, 5PF
Front view

Analog (temperature type K), temperature cable 2pin

Name	Description	Color (standard)	Color (alternative)
+ -	Temperature cable +/-	red	green
+ -	Temperature cable +/-		yellow
+ -	Temperature cable +/-		red
+ -	Temperature cable +/-		green
+ -	Temperature cable +/-		white
+ -	Temperature cable +/-		brown
+ -	Temperature cable +/-		blue
+ -	Temperature cable +/-		red
+ -	Temperature cable +/-		white
+ -	Temperature cable +/-		yellow
+ -	Temperature cable +/-		pink



2PF (front view)

Connection allocation on the module

