



K-LINE **K109TC**

Thermocouple Converter

K-LINE

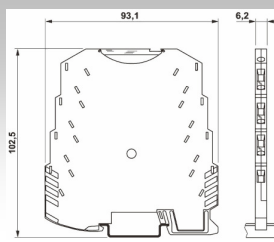
Temperature converters



- ▶ INPUT: Thermocouples types: J, K, E, N, S, R, B, T with zero and span configurable by dip-switch
- ▶ OUTPUT: N.1 channel current 0/4..20, 20..4/0 mA or voltage 0..5/10, 10..0, 1..5 Vdc
N.1 solid state relay (SSR) for thermostat / alarm function
- ▶ Galvanic isolation @ 3-way
- ▶ Spring-cage terminal block and/or DIN bus connection system
- ▶ Power bridging terminal - DIN rail bus connector
- ▶ Tiny dimensions (102,5 x 93,1 x 6,2 mm)
- ▶ Resolution @ 14 bit
- ▶ Precision class 0.1%

TECHNICAL DATA

K109TC – Thermocouple Converter



ORDER CODES

K109TC	Thermocouple converter
Accessories	
K-BUS	Expandable power supply connector
K-SUPPLY	Power Supply module with surge protection

GENERAL FEATURES

Power supply	19,2...30 Vdc
Channels	N.1
Accuracy	Class: 0,1% Cold junction error: 1,5°C Max
Status indicators	- Fault - State of the auxiliary output
Galvanic Isolation	Power supply // input // output at 1500 Vac, digital
Hot swapping	Yes
Power consumption	500 mW
A/D Converter	14 bit
Current output protection	Approximately 25 mA
Security output	- 102.5% of full scale value, in case of over-range - 105% of full scale value in case of improper functioning
Humidity	30..90% at +40°C (not condensing)

Design	Terminal housing for mounting on 35 mm DIN 46277
Filter rejection	50-60 Hz (settable)
DIP Switch	- Inputs signal setup - Output signal setup
Processing	Floating point 32 bit
Dimensions	6,2 x 93,1 x 102,5 mm (w x h x d)
Weight	50 g
Operating temperature	-20..+65 °C
Connections	Plug-in screw clamp terminal blocks, wires up to 2.5 mm ²
IP Protection	IP 20
Standards	EN50081-2 EN50082-2 EN61010-1 EN60742
Approvals	CE, UL-CSA

INPUT

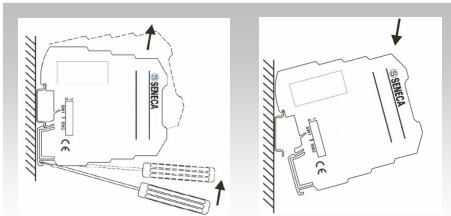
Thermocouples types: J, K, E, N, S, R, B, T
Tables: EN60584-1 (ITS-90)
Lower span: 100 °C
Impedance: 10 MOhm

OUTPUT

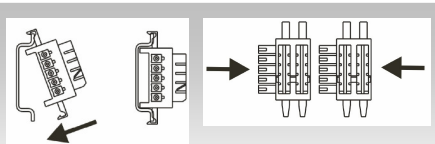
Current: 0..20 mA, 4..20 mA, 20..0 mA and 20..4 mA
Higher load resistance: 500 Ohm
Voltage: 0.5 Vdc, 1.5 Vdc, 0..10 Vdc and 10..0 Vdc
Lower load resistance: 2 KOhm
Static output: Applicable Voltage 24 Vac nominal
Current: 60 mA Max

DIMENSIONS AND INSTALLATION

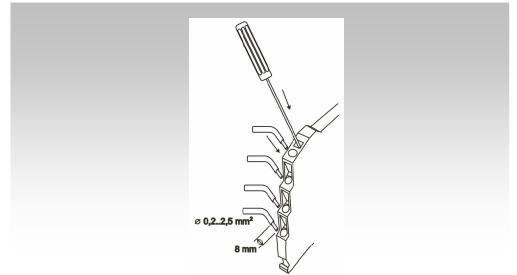
Inserting / Extracting module on DIN guide



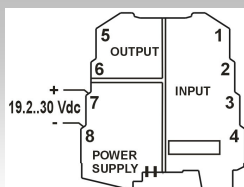
Expandable connector K-BUS



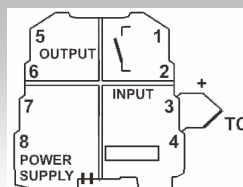
Cage clamp connection



Power supply



Input



Output

