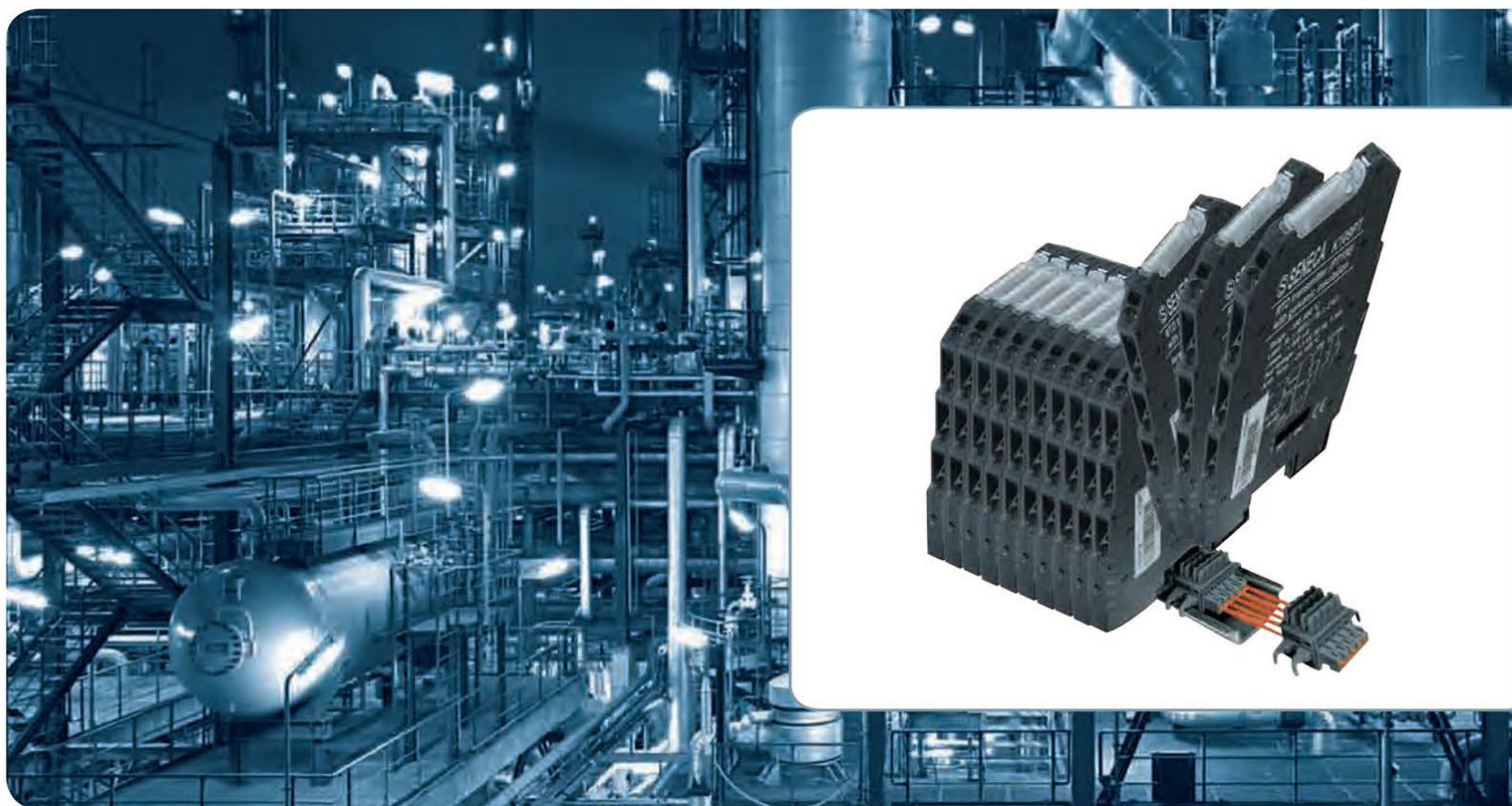




0.25" Wide Signal Conditioners and Isolators



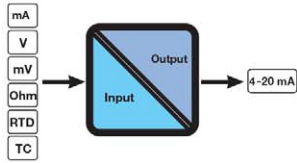
Represented by

Absolute Process Instruments Inc.
1220 American Way, Libertyville, IL 60048
800-942-0315

ANALOG / UNIVERSAL

K121

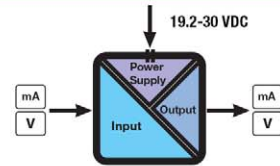
LOOP POWERED UNIVERSAL CONVERTER



Order Code: **K121**

K109UI

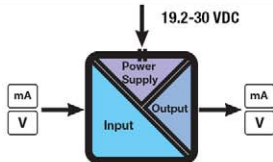
DC CURRENT/VOLTAGE TO DC CURRENT/VOLTAGE ISOLATOR/CONVERTER



Order Code: **K109UI**

K109S

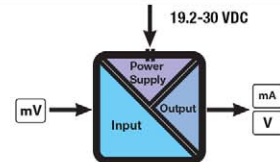
DC CURRENT / VOLTAGE TO DC CURRENT/VOLTAGE ISOLATOR/CONVERTER



Order Code: **K109S**

K109LV

DC LOW VOLTAGE TO DC CURRENT/VOLTAGE ISOLATOR/CONVERTER

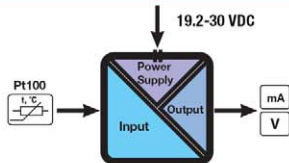


Order Code: **K109LV**

TEMPERATURE

K109PT

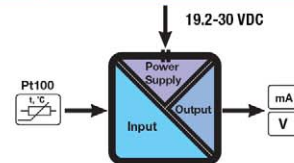
PT100 TO DC CURRENT/VOLTAGE ISOLATOR/CONVERTER



Order Code: **K109PT**

K109PT-HPC

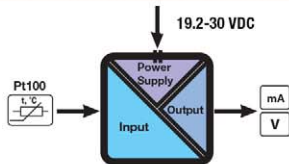
PT100 (HIGH-PRECISION) TO DC CURRENT/VOLTAGE ISOLATOR CONVERTER



Order Code: **K109PT-HPC**

K109PT1000

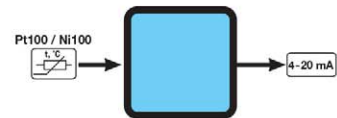
PT1000 TO DC CURRENT/VOLTAGE ISOLATOR/CONVERTER



Order Code: **K109PT1000**

K120RTD

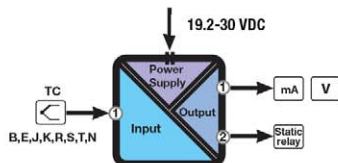
PT100, NI100 LOOP POWERED CONVERTER



Order Code: **K120RTD**

K109TC

THERMOCOUPLE TO DC CURRENT/VOLTAGE ISOLATOR/CONVERTER (WITH TRIP ALARM)

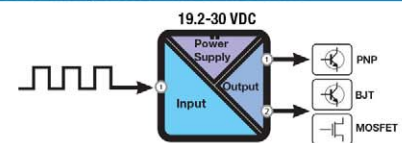


Order Code: **K109TC**

DIGITAL

K111

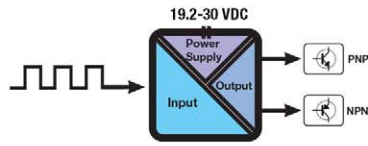
ISOLATED DUAL OUTPUT FREQUENCY TRIP AMPLIFIER



Order Code: **K111**

K112

UNIVERSAL DIGITAL COUPLER/ISOLATOR

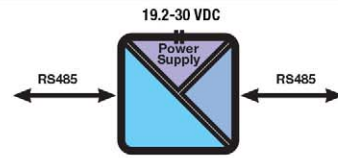


Order Code: **K112**

SERIAL

K107A

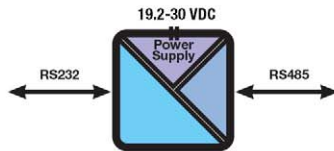
RS485 ↔ RS485 SERIAL ISOLATOR/AMPLIFIER



Order Code: **K107A**

K107B

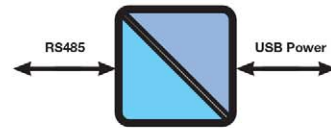
RS232 ↔ RS485 SERIAL CONVERTER



Order Code: **K107B**

K107USB

USB ↔ RS485 SERIAL CONVERTER



Order Code: **K107USB**

ACCESSORIES

K-BUS

EXPANDABLE POWER SUPPLY CONNECTOR (EN 60175)



Order Code: **K-BUS**

K-SUPPLY

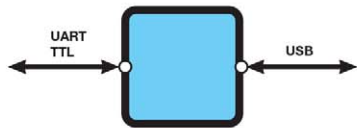
REDUNDANT POWER SUPPLY MODULE WITH OVERVOLTAGES PROTECTION



Order Code: **K-SUPPLY**

EASY-USB

USB ↔ TTL CONVERTER

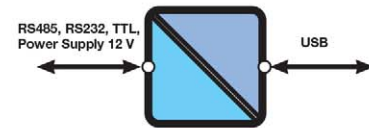


K111
K121
K120RTD

Order Code: **EASY-USB**

S117P-1

USB ↔ RS485/RS232/TTL SERIAL ISOLATOR/CONVERTER (DESK)



K111
K121
K120RTD

Order Code: **S117P-1**

PROGRAMMING SOFTWARE

EASY SETUP - EASY LP

PLUG&PLAY PROGRAMMING SOFTWARE



K111
K121
K120RTD

Software available for Free

SIMILAR PRODUCTS

T120



T121



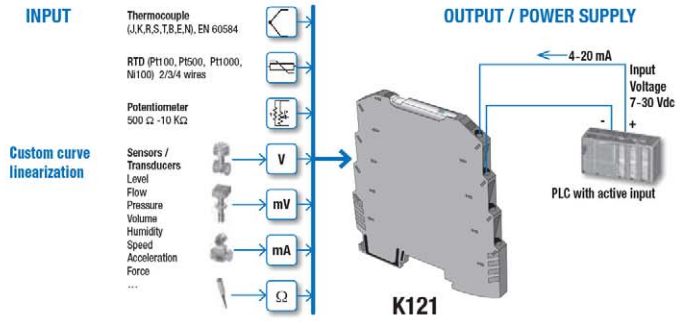
S107USB



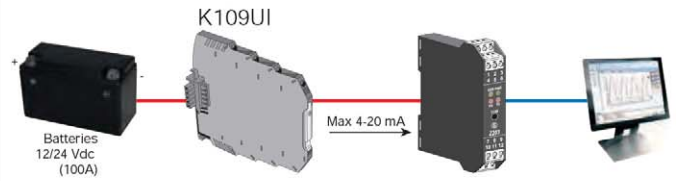
Code	Description
T120	Loop powered (5-30V) transmitter for Pt100 and Ni100 probes (in head mounting)
T121	Isolated loop powered (7-30V) temperature transmitter (in head mounting)
S107USB	USB ↔ RS485 serial converter (desk version), drivers and cable included

APPLICATION EXAMPLES

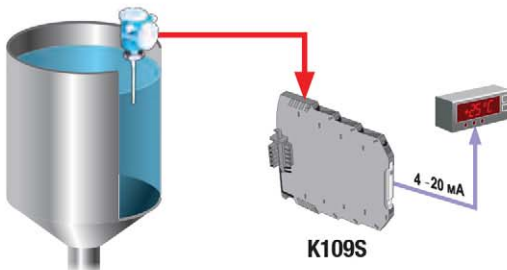
UNIVERSAL ANALOG SIGNAL CONVERSION FOR PLC



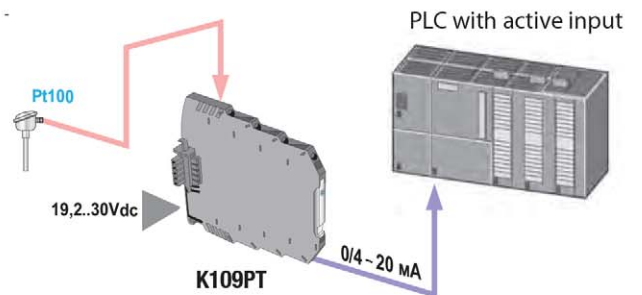
BATTERY VOLTAGE MONITORING



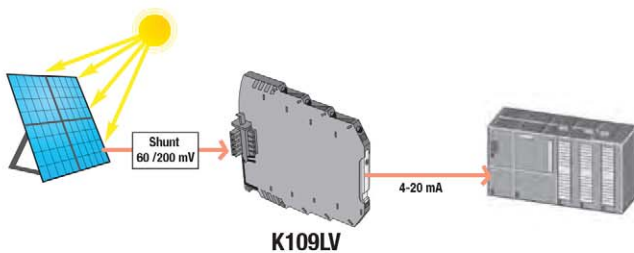
ANALOG SIGNAL ISOLATION, RETRANSMISSION, VISUALIZATION FROM 2 WIRE SENSOR



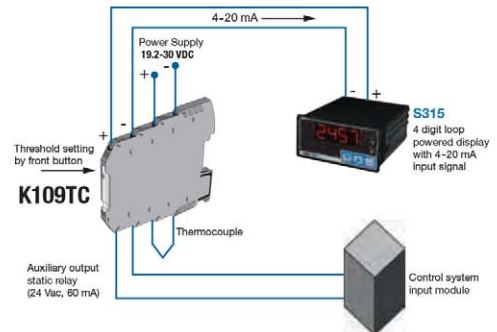
PT100 TEMPERATURE TO ANALOG SIGNAL CONVERSION



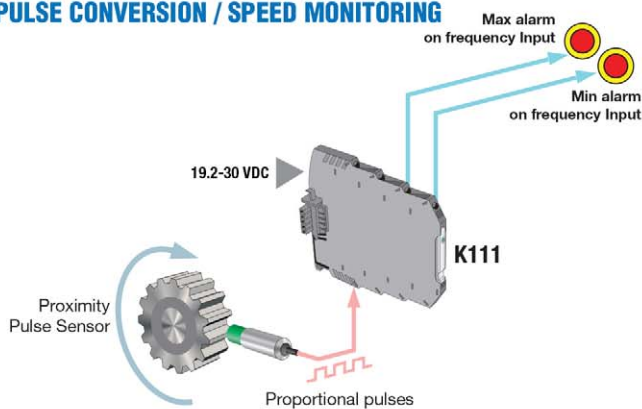
STRING CURRENT MEASUREMENT AND TRANSMISSION IN PHOTOVOLTAIC PLANT



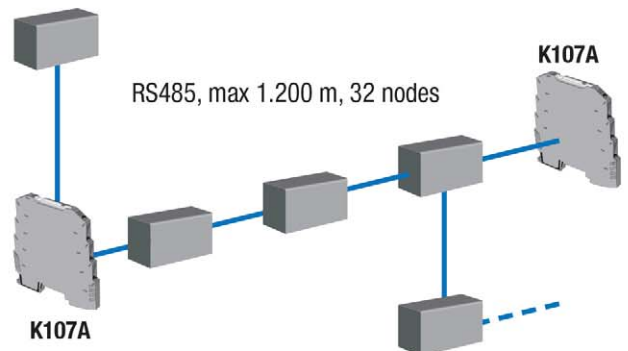
THERMOCOUPLE CONVERSION / DISPLAYING THROUGH S315 ALARM MANAGEMENT



PULSE CONVERSION / SPEED MONITORING

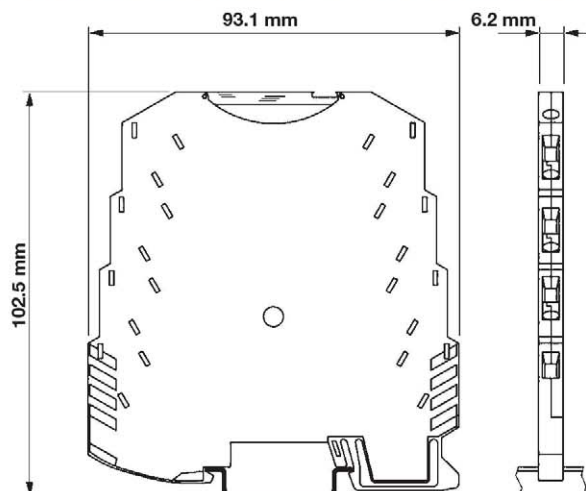


SERIAL RE-TRANSMISSION



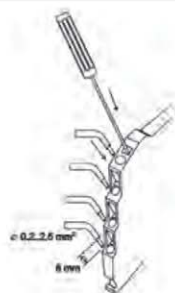
K LINE

Compact Signal Converters Isolators

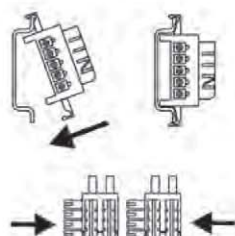


Power supply range	19.2–30 Vdc (except loop powered versions)
Bus supply	Bus connectors (K-BUS) can be snapped into 35 mm DIN rail according to EN 60175
Wire size	24 to 14 AWG (0.2–2.5 mm ²)
Wire stripping	5/16" (8 mm)
Power on side terminals	yes
Hot swapping	yes
Max current consumption	21–25 mA (24 Vdc) (except loop powered versions)
Consumption without load @ 25°C	7.5 mA
Max power consumption	500 mW
A/D conversion	16 bit
Rejection	50 or 60 Hz (programmable)
Settings	DIP switch, software
Filter	Insertable
Dimension	93.1 x 6.2 x 102.5 mm
Isolation	1.5 KV (50 Hz, 1 min)
Isolation technique	Digital (optocoupler)
Processor	Floating point 32 bit
Color	Black
Case material	PBT
Weight	45 g
Operating temperature	–20 to 65 °C
Storage temperature	–40 to 85 °C
Humidity	10–90 % non condensing
Connection	terminals and/or BUS
Protection degree	IP 20
Conformity	CE, UL-UR CSAEN 50081-2, EN 50082-2, EN 61010-1, EN 60742, EN 61000-6-4, EN 61000-6-2

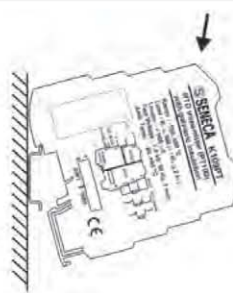
CONNECTION AND INSTALLATION



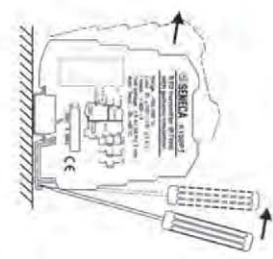
SCREW TERMINAL CONNECTION



K-BUS CONNECTOR



INSERTING MODULE ON DIN GUIDE



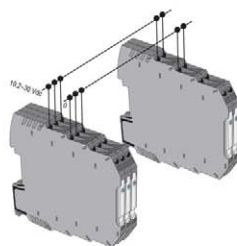
EXTRACTING MODULE FROM DIN GUIDE

POWER SUPPLY

K Line signal conditioners can be powered 3 different ways.

1. Screw terminal block on the module.
Note that loop-powered modules do not use the bus system.
2. SMART SUPPLY bus system.
The SMART SUPPLY is based on the expandable K-BUS connector. Up to 16 devices can be connected to a single power supply as long as total current does not exceed 400 mA.
3. Distributed SMART SUPPLY bus system.
For 17 to 75 devices (1.6 A max current consumption) using external regulated power supplies.

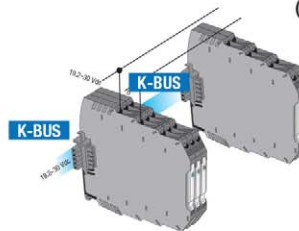
POWER SUPPLY ON SCREW TERMINALS



1

SMART SUPPLY SYSTEM

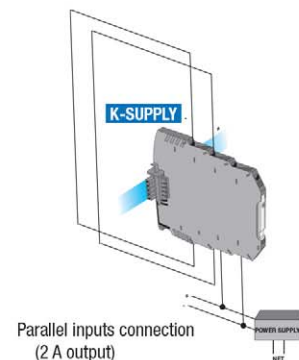
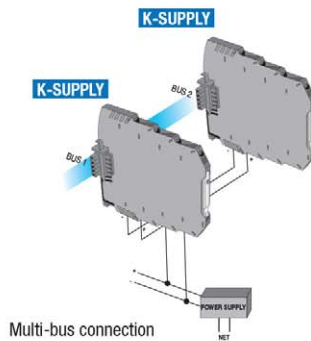
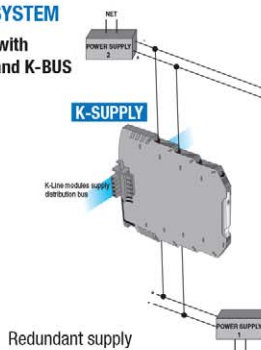
Distributed supply with 2 slot connector K-BUS (up to 16 modules)



2

SMART SUPPLY SYSTEM

Distributed supply with K-SUPPLY module and K-BUS (up to 75 modules)

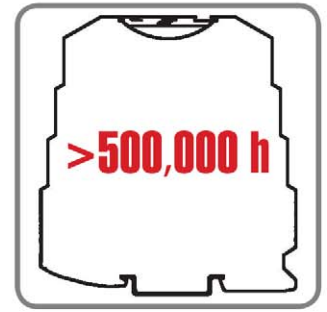


3

10 good reasons to choose K LINE



PC PROGRAMMING



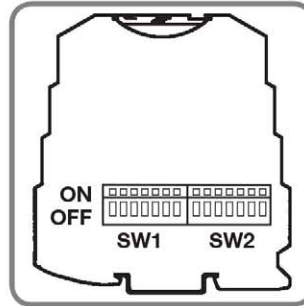
HIGH LEVEL RELIABILITY



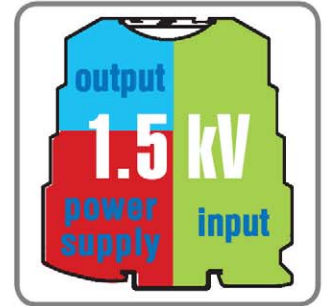
COMPACT SIZE



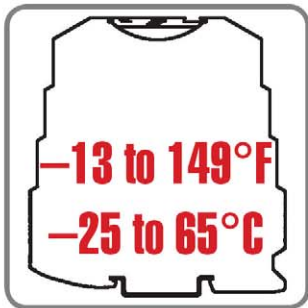
BEST ACCURACY



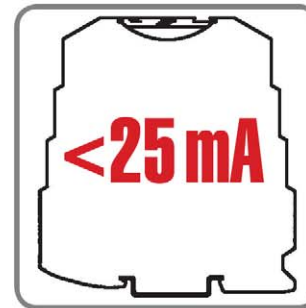
FLEXIBLE CONFIGURATION VIA DIP-SWITCHES



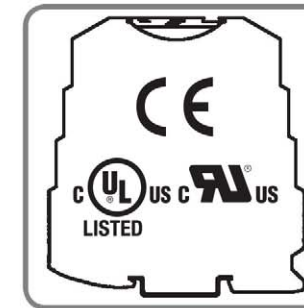
ISOLATION 3-WAY



WIDE OPERATING TEMPERATURE RANGE



LOW POWER CONSUMPTION



INTERNATIONAL STANDARDS



COST EFFECTIVE

PRODUCT CODE	MEASUREMENT	CONVERSION TYPE		CHANNELS		OTHER FEATURES			
		IN	OUT	INPUT	OUTPUT	POWER SUPPLY	MAX GALVANIC ISOLATION	CASE (DIMENSION)	ACCURACY CLASS
K109UI	Analog	mA, V	mA, V	1	1	19.2-30 Vdc	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	0.1%
K109S	Analog	mA, V, sensor power supply	mA, V	1	1	19.2-30 Vdc	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	0.1%
K109LV	Analog	mV	mA, V	1	1	19.2-30 Vdc	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	0.1%
K111	Digital / Pulse	Namur, PNP, NPN, Reed, Photocell	PNP	1	2	19.2-30 Vdc	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	
K112	Digital / Pulse	Namur, PNP, NPN, Reed, Photocell	PNP, NPN	1	2	19.2-30 Vdc	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	
K107A	Serial	RS485	RS485	1	1	19.2-30 Vdc	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	
K107B	Serial	RS232	RS485	1	1	19.2-30 Vdc	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	
K107USB	Serial	USB	RS485	1	1	external / by loop	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	
K109PT	Temperature	Pt100	mA, V	1	1	19.2-30 Vdc	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	0.1%
K109PT-HPC	Temperature	Pt100	mA, V	1	1	19.2-30 Vdc	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	< 0.1%
K109PT1000	Temperature	Pt1000	mA, V	1	1	19.2-30 Vdc	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	0.1%
K120RTD	Temperature	Pt100, Ni100	mA	1	1	external / by loop		K (6.2 x 93.1 x 102.5 mm)	0.1%
K109TC	Temperature	TC (J,K,R,S,T,B,E,N)	mA, V, relay	1	2	19.2-30 Vdc	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	0.1%
K121	Universal	mA, V, Ohm, TC (J,K,R,S,T,B,E,N), Pt100, Ni100, Pt500, Pt1000	mA	1	1	external / by loop	1.5 kVac	K (6.2 x 93.1 x 102.5 mm)	0.1%



Absolute Process Instruments Inc.
 1220 American Way, Libertyville, IL 60048
 800-942-0315

API maintains a constant effort to upgrade and improve its products. Specifications are subject to change without notice. Consult factory for your specific requirements.