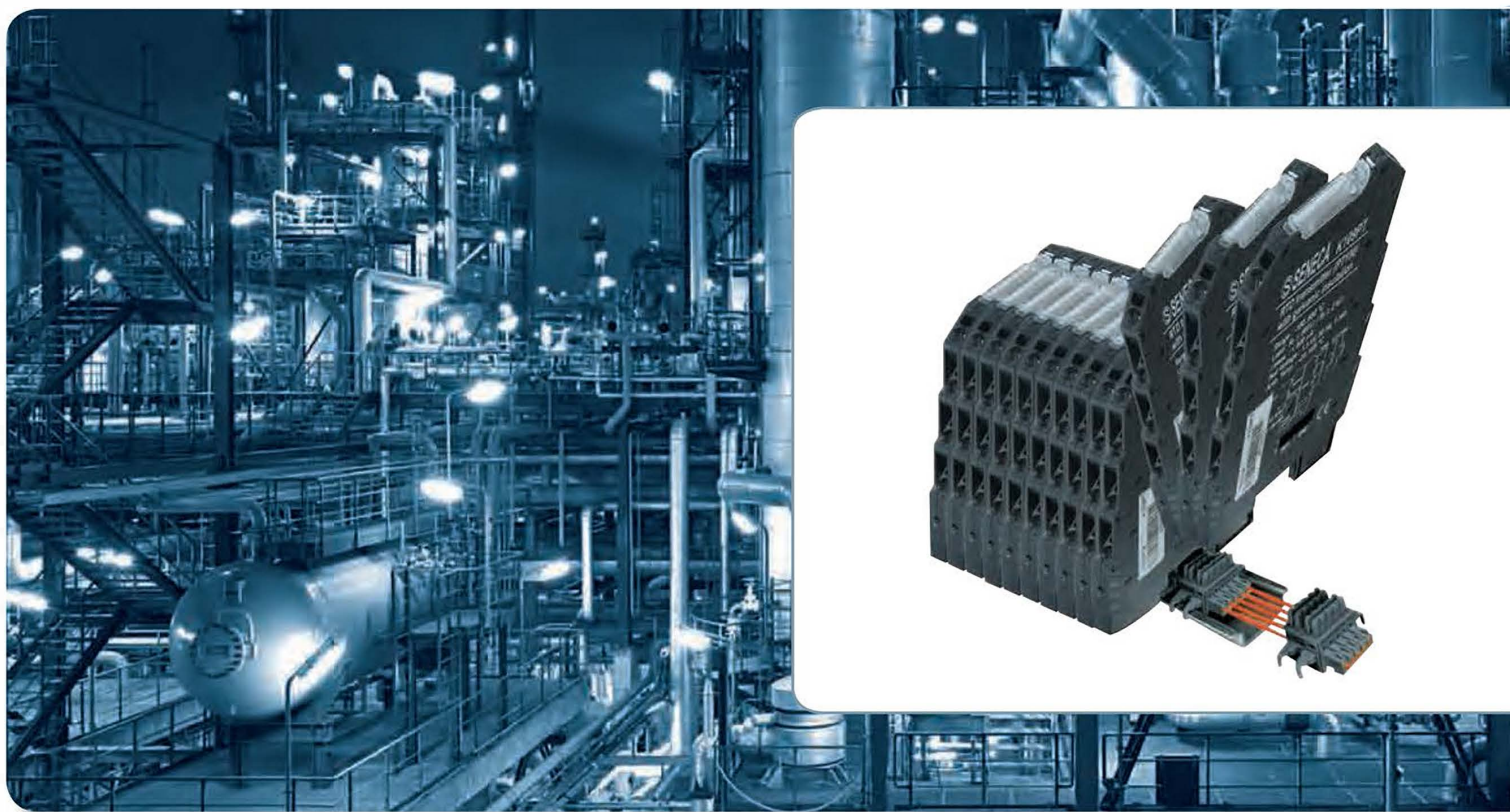




0.25" Wide Signal Conditioners and Isolators



Represented by

Absolute Process Instruments Inc.



1220 American Way, Libertyville, IL 60048

800-942-0315

Authorized Distributor:

WESCHLER INSTRUMENTS

phone: 800-903-9870 440-378-6580

fax: 800-903-9590 440-238-0660

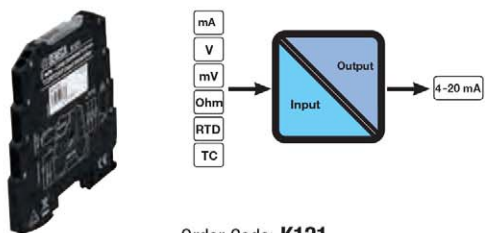
www.weschler.com info@wescher.com

api-usa.com

ANALOG / UNIVERSAL

K121

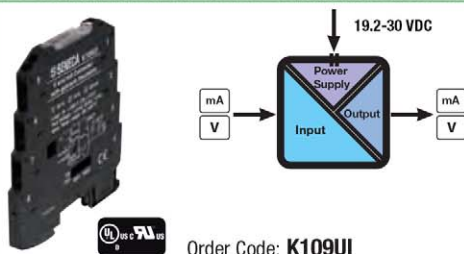
LOOP POWERED UNIVERSAL CONVERTER



Order Code: K121

K109UI

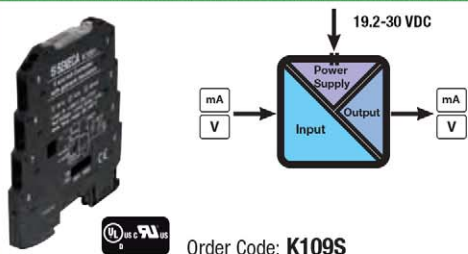
DC CURRENT/VOLTAGE TO DC CURRENT/VOLTAGE ISOLATOR/CONVERTER



Order Code: K109UI

K109S

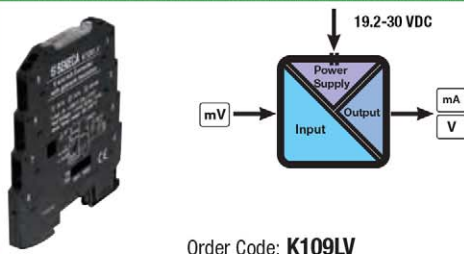
DC CURRENT / VOLTAGE TO DC CURRENT/VOLTAGE ISOLATOR/CONVERTER



Order Code: K109S

K109LV

DC LOW VOLTAGE TO DC CURRENT/VOLTAGE ISOLATOR/CONVERTER

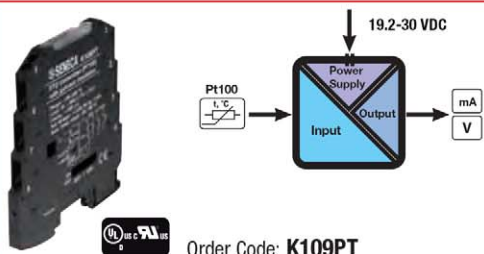


Order Code: K109LV

TEMPERATURE

K109PT

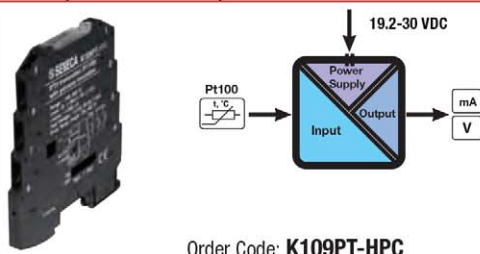
PT100 TO DC CURRENT/VOLTAGE ISOLATOR/CONVERTER



Order Code: K109PT

K109PT-HPC

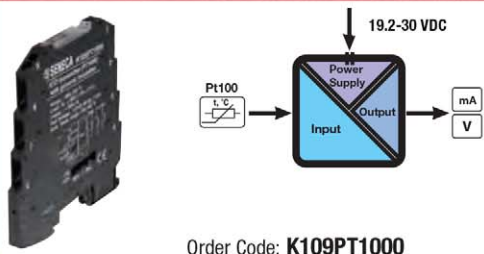
PT100 (HIGH-PRECISION) TO DC CURRENT/VOLTAGE ISOLATOR CONVERTER



Order Code: K109PT-HPC

K109PT1000

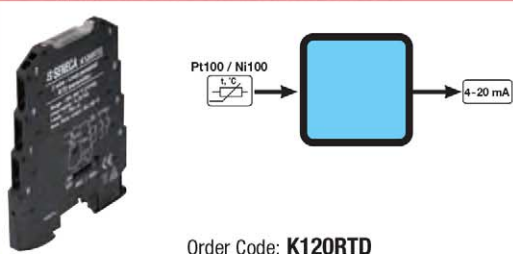
PT1000 TO DC CURRENT/VOLTAGE ISOLATOR/CONVERTER



Order Code: K109PT1000

K120RTD

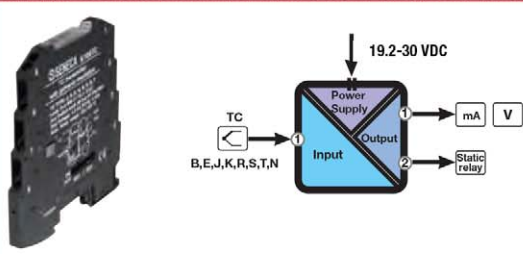
PT100, NI100 LOOP POWERED CONVERTER



Order Code: K120RTD

K109TC

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

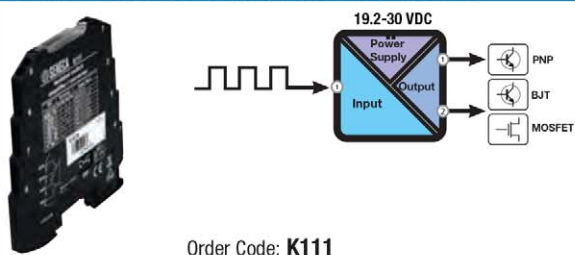


Order Code: K109TC

DIGITAL

K111

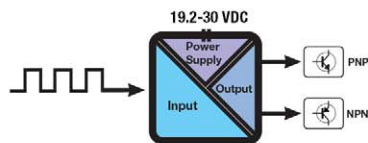
ISOLATED DUAL OUTPUT FREQUENCY TRIP AMPLIFIER



Order Code: K111

K112

UNIVERSAL DIGITAL COUPLER/ISOLATOR

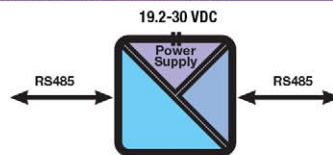


Order Code: **K112**

SERIAL

K107A

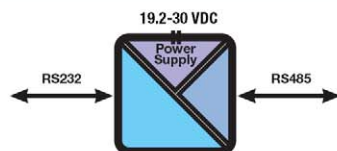
RS485 ↔ RS485 SERIAL ISOLATOR/AMPLIFIER



Order Code: **K107A**

K107B

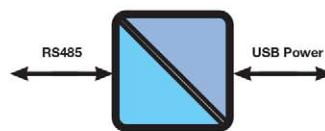
RS232 ↔ RS485 SERIAL CONVERTER



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

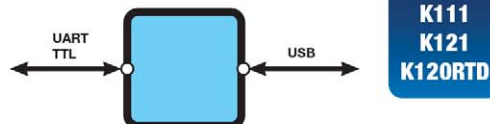
REDUNDANT POWER SUPPLY MODULE WITH OVERVOLTAGES PROTECTION



Order Code: **K-SUPPLY**

EASY-USB

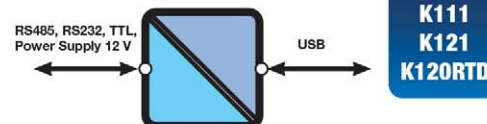
USB ↔ TTL CONVERTER



Order Code: **EASY-USB**

S117P-1

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



Order Code: **S117P-1**

PROGRAMMING SOFTWARE

EASY SETUP - EASY LP

PLUG&PLAY PROGRAMMING SOFTWARE



Software available for Free

**K111
K121
K120RTD**

SIMILAR PRODUCTS

T120



T121



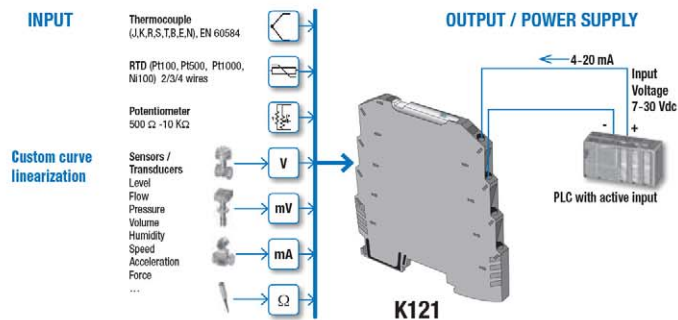
S107USB



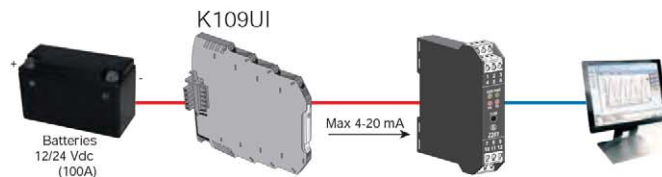
Code	Description
T120	Loop powered (5-30V) transmitter for Pt100 and Ni100 probes (in head mounting)
T121	Isolated loop powered (7-30V) temperature transmitter (in head mounting)
S107USB	USB ↔ RS485 serial converter (desk version), drivers and cable included

APPLICATION EXAMPLES

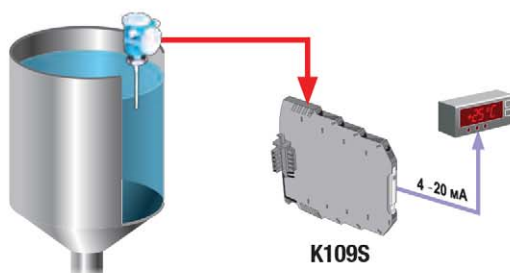
UNIVERSAL ANALOG SIGNAL CONVERSION FOR PLC



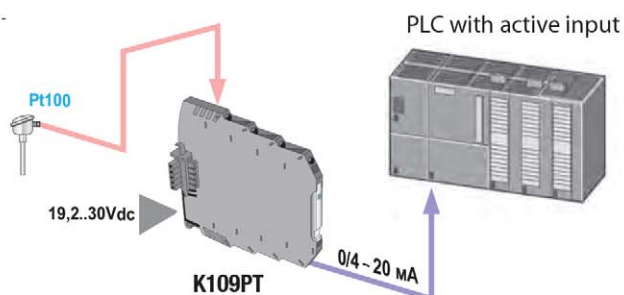
BATTERY VOLTAGE MONITORING



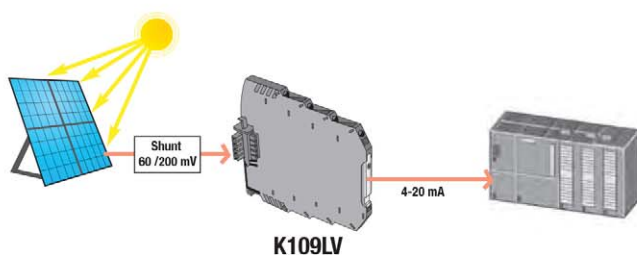
ANALOG SIGNAL ISOLATION, RETRANSMISSION, VISUALIZATION FROM 2 WIRE SENSOR



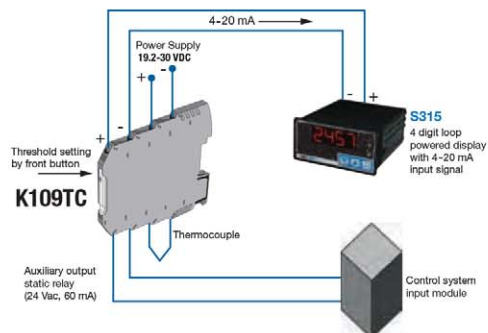
PT100 TEMPERATURE TO ANALOG SIGNAL CONVERSION



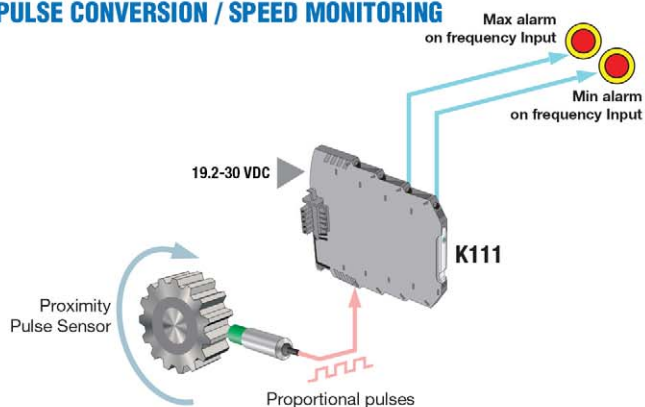
STRING CURRENT MEASUREMENT AND TRANSMISSION IN PHOTOVOLTAIC PLANT



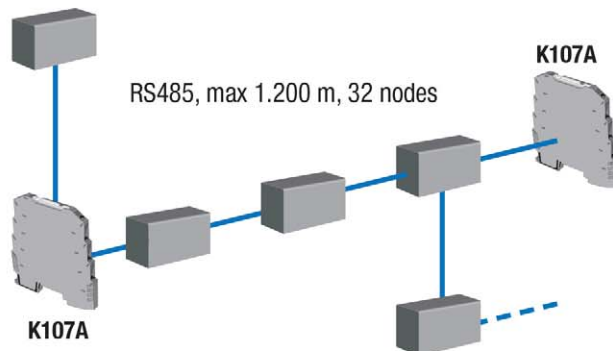
THERMOCOUPLE CONVERSION / DISPLAYING THROUGH S315 ALARM MANAGEMENT



PULSE CONVERSION / SPEED MONITORING

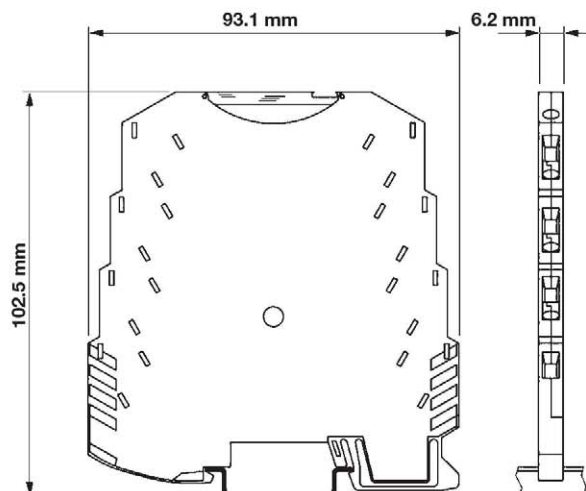


SERIAL RE-TRANSMISSION



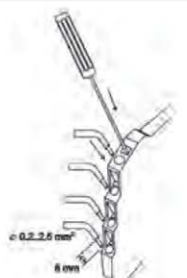
K LINE

Compact Signal Converters Isolators

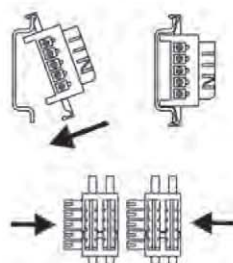


Power supply range	19.2–30 Vdc (except loop powered versions)
Bus supply	Bus connectors (K-BUS) can be snapped into 35 mm DIN rail according to EN 60175
Wire size	24 to 14 AWG (0.2–2.5 mm ²)
Wire stripping	5/16" (8 mm)
Power on side terminals	yes
Hot swapping	yes
Max current consumption	21–25 mA (24 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

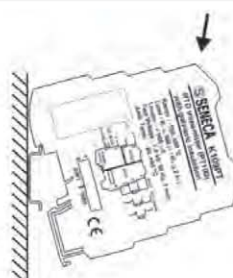
CONNECTION AND INSTALLATION



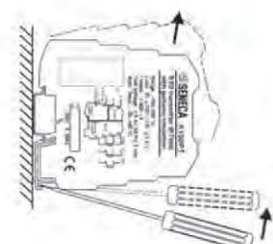
SCREW TERMINAL CONNECTION



K-BUS CONNECTOR



INSERTING MODULE ON DIN GUIDE



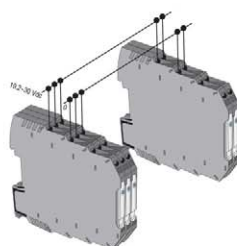
EXTRACTING MODULE FROM DIN GUIDE

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.

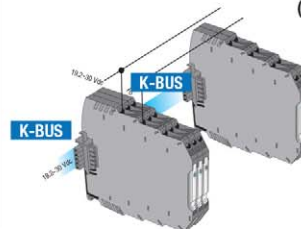
POWER SUPPLY ON SCREW TERMINALS



1

SMART SUPPLY SYSTEM

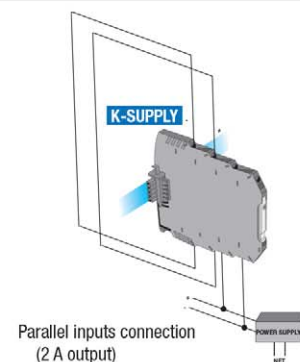
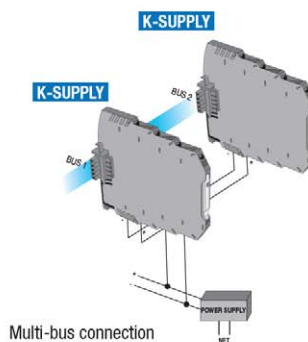
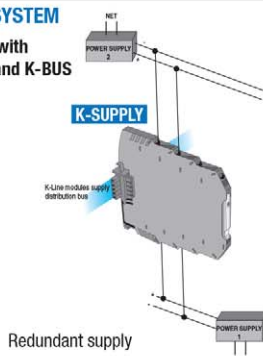
Distributed supply with 2 slot connector K-BUS (up to 16 modules)



2

SMART SUPPLY SYSTEM

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

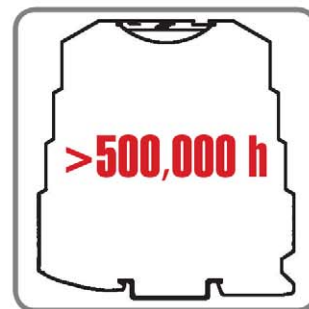


3

10 good reasons to choose K LINE



**PC
PROGRAMMING**



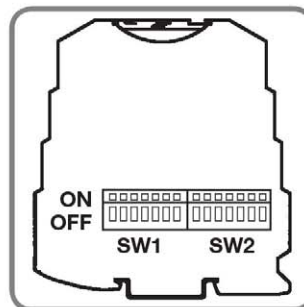
**HIGH LEVEL
RELIABILITY**



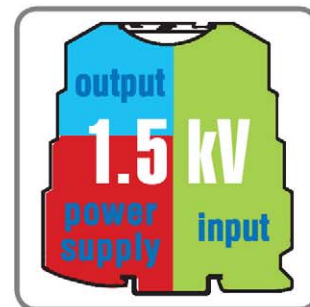
**COMPACT
SIZE**



**BEST
ACCURACY**



**FLEXIBLE
CONFIGURATION VIA
DIP-SWITCHES**



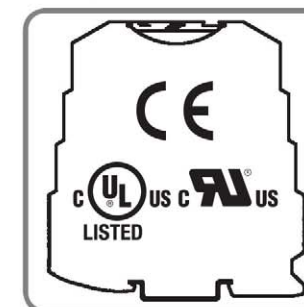
**ISOLATION
3-WAY**



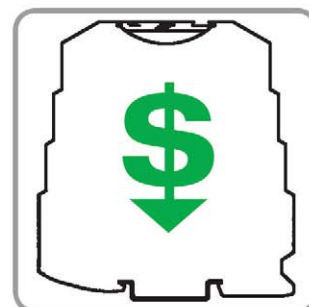
**WIDE OPERATING
TEMPERATURE RANGE**



**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.
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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.

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