

K-LINE

COMPACT SIGNAL
CONVERTERS
AND ISOLATORS






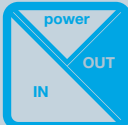
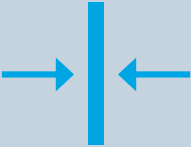

K-Line

Compact Signal Converters and Isolators

SENECA **K-Line** compact signal converters have a 6,2 mm ultra slim case. These multi-point galvanic isolators convert temperature, analog, digital and serial signals.

The module's main features are its compact size, installation on 35 mm DIN rails, a bus-connector power supply option, top level accuracy class, quick connection possibility by using clamp terminals and an easy configuration in the field by means of a DIP switches.

HARSH INDUSTRIAL DESIGN

| | |
|--|---|
| <p>HIGH LEVEL RELIABILITY</p>  <p>>500.000 h</p> | <p>WIDE OPERATING TEMPERATURE RANGE</p>  <p>-20..+65°C</p> |
| <p>LOW POWER CONSUMPTION</p>  <p><25mA</p> | <p>ISOLATION 3-WAYS</p>  <p>1,5 kV</p> |
| <p>COMPACT SIZE</p>  <p>6,2 mm</p> | <p>BEST ACCURACY</p>  <p>0,1%</p> |



SPECIAL FUNCTIONS

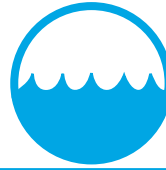
READING
STABILIZATION
FILTER



I/O SCALES
INVERSION



LINEARIZATION FOR
HORIZONTAL
CYLINDRICAL



SQRT
FUNCTIONS



SETTINGS

FLEXIBLE
CONFIGURATION VIA
DIP-SWITCHES



PC PROGRAMMING



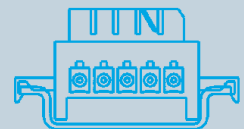
POWER SUPPLY

DISTRIBUTED / ON
TERMINAL
POWER SUPPLY



19.2..30 Vdc

EXPANDABLE POWER
SUPPLY CONNECTOR



APPROVALS

INTERNATIONAL
STANDARD



CE, UL, CSA

ATEX COMPLIANT
(K121)











II 3G Ex nA IIC T4 Gc X (gas)
II 3D Ex tc IIIC T135°C Dc X (dust)
EN 60079-0:2012
EN 60079-15:2010

COMPACT SIGNAL CONVERTERS AND ISOLATORS









UNIVERSAL

ANALOG







| | K121 | K109UI | K109S | K109LV |
|--|--|--|--|--|
| |    <p>Universal converter (mA, V, Ohm, RTD, TC) isolated, loop powered</p> |   <p>DC current/voltage to current/voltage isolator converter</p> |   <p>DC current/voltage to current/voltage isolator converter (2 wire power transducer)</p> |  <p>DC low voltage to current/voltage isolator converter</p> |

| GENERAL DATA | | | | |
|----------------------------|--|--|---|---|
| Power supply | 7..30 Vdc (from loop 4..20mA) | 19,2.. 30 Vdc | 19,2.. 30 Vdc | 19,2.. 30 Vdc |
| Side Power | | Yes | Yes | Yes |
| Hot swapping | Yes | Yes | Yes | Yes |
| Current consumption | 24 mA | 22 mA (24 Vdc) | 23 mA (24 Vdc); 45 mA (with aux power) | 22 mA (24 Vdc) |
| Power consumption | <660 mW | 500 mW | 500 mW | 500 mW |
| A/D Conversion | 16 bit | 14 bit | 14 bit | 14 bit |
| Transmission | | | | |
| Rejection | 50 / 60 Hz | 50 / 60 Hz | 50 / 60 Hz | 50 / 60 Hz |
| Settings | Software (EASY SETUP) | DIP Switches | DIP Switches | DIP Switches |
| Filter | Yes, stable reading | Yes, stable reading | Yes, stable reading | Yes, stable reading |
| Dimensions (w x h x d) | 6,2 x 93,1 x 102,5 mm | 6,2 x 93,1 x 102,5 mm | 6,2 x 93,1 x 102,5 mm | 6,2 x 93,1 x 102,5 mm |
| Isolation | 1,5 kVac (3-way) | 1,5 kVac (3-way) | 1,5 kVac (3-way) | 1,5 kVac (3-way) |
| Isolation technique | Digital (optocoupler) | Digital (optocoupler) | Digital (optocoupler) | Digital (optocoupler) |
| Data processing | 32 bit floating point | 32 bit floating point | 32 bit floating point | 32 bit floating point |
| Colour | Black | Black | Black | Black |
| Enclosure | PBT | PBT | PBT | PBT |
| Weght | 45 g | 45 g | 45 g | 45 g |
| Operating temperature | -20..+65 °C | -20..+65 °C | -20..+65 °C | -20..+65 °C |
| Connections | 8 Clamp terminals | Clamp terminals / bus | Clamp terminals / bus | Clamp terminals / bus |
| Protection degree | IP 20 | IP 20 | IP 20 | IP 20 |
| Precision class | 0,1% | 0,1% | 0,1% | 0,1% |
| Thermal drift | < 120 ppm/K | < 120 ppm/K | < 120 ppm/K | < 120 ppm/K |
| Status indicators | Fault, alarm | Fault, alarm | Fault, alarm | Fault, alarm |
| Special functions | Cold junction compensation Filter Reversed output | Root extraction Signal inversion Scale settable Linearization | Root extraction Signal inversion Scale settable Linearization | Fault configuration Filter |
| Approvals | CE, II 3G Ex nA IIC T4 Gc X, II 3D Ex tc IIC T135°C Dc X | CE, UL-UR CSA | CE, UL-UR CSA | CE |
| Norms | Safety (EN 61010-1), EMC (EN 61000-6-2, EN 61000-6-4, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11), Atex (EN 60079-0, EN 60079-15) | EN 61000-6-4, EN 61010-6-2, EN 61010-1 | EN 61000-6-4, EN 61010-6-2, EN 61010-1 | EN 61000-6-4, EN 61010-6-2, EN 61010-1 |
| INPUT DATA | | | | |
| Channels | 1 | 1 | 1 | 1 |
| Type | THERMOCOUPLE J,K,R,S,T,E,B,N,L (EN 60584) RTD (Pt100, Pt500, Pt1000, Ni100, Ni120, Ni1000, Cu50, Cu100) 2, 3, 4 wires connection Voltage (V) ± 30V, impedance 200 kΩ Voltage (mV) ±150 mV, impedance 10 MΩ Current: ±24 mA, impedance 40 Ω Potentiometer: 500 Ω..100 KΩ Resistance: up to 1760 Ω | VOLTAGE Range: 0..10 / 10..0 / 0..5 / 1..5 / 0..15 / 0..30 V (inversion as well) Impedance: 110 kΩ - 325 kΩ CURRENT Range: 4..20 / 20..4 / 0..20 / 20..0 mA Impedance: 35 Ω | VOLTAGE Range: 0..10 / 10..0 / 0..5 / 1..5 V Impedance: 110 kΩ CURRENT Range: 4..20 / 20..4 / 0..20 / 20..0 mA Impedance: 35 Ω | SHUNT Range: ±25, 50, 60, 75, 80, 100, 120, 150, 200, 250, 300, 400, 500, 1000, 2000 mV (via Dip switches) |
| Absolute value | | ± 32 V (400 mW limitation) | ± 30 V (limitation 400 mW) | ± 50 V |
| OUTPUT DATA | | | | |
| Channels | 1 | 1 | 1 | 1 |
| Type | CURRENT 4..20mA | VOLTAGE Range: 0..10 / 10..0 / 0..5 / 1..5 V Min load resistance: 2 kΩ CURRENT Range: 4..20 / 20..4 / 0..20 / 20..0 mA Max load resistance: 500 Ω Protection: 25 mA | VOLTAGE Range: 0..10 / 10..0 / 0..5 / 1..5 V Min load resistance: 2 kΩ CURRENT Range: 4..20 / 20..4 / 0..20 / 20..0 mA Max load resistance: 500 Ω Protection: 25 mA | VOLTAGE Range: 0..10 / 10..0 / 0..5 / 1..5 V Min load resistance: 2 kΩ CURRENT Range: 4..20 / 20..4 / 0..20 / 20..0 mA Max load resistance: 500 Ω Protection: 25 mA |
| Static relay | | | | |
| Response time (10-90%) | 140..620ms | < 40 ms (without filter) < 88 ms (with filter) | < 40 ms (without filter) < 88 ms (with filter) | < 25 ms (without filter) < 55 ms (with filter) |
| A/D conversion, resolution | | | | |
| ORDER CODES | | | | |
| Code | K121 | K109UI | K109S | K109LV |

TEMPERATURE

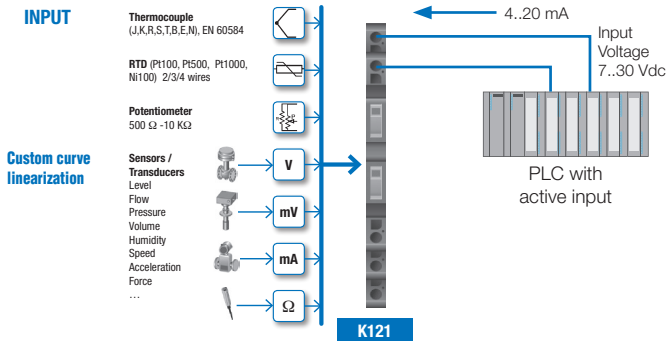
| K109PT | K109PT-HPC | K109PT1000 | K120RTD | K109TC |
|---|---|---|---|--|
|   |  |  |   |   |
| Pt100 to DC current/voltage isolator converter | Pt100 to DC current/voltage isolator converter (high precision) | Pt1000 to DC current/voltage isolator converter | Pt100, Ni100 to DC current converter -Loop powered (non isolated) | TC to DC current/voltage isolator converter (with alarm) |
| 19,2..30 Vdc | 19,2..30 Vdc | 19,2..30 Vdc | Loop powered (5..30 Vdc) | 19,2..30 Vdc |
| Yes | Yes | Yes | - | Yes |
| Yes | Yes | Yes | - | Yes |
| 21..25 mA (24 Vdc) | 21..25 mA (24 Vdc) | 21..25 mA (24 Vdc) | 21..25 mA (24 Vdc) | 21..25 mA (24 Vdc) |
| 500 mW | 500 mW | 500 mW | 500 mW | 500 mW |
| 14 bit | 14 bit | 14 bit | 14 bit | 14 bit |
| Optical - digital | Optical - digital | Optical - digital | Optical - digital | Optical - digital |
| 50 – 60 Hz (configurable) | 50 – 60 Hz (configurable) | 50 – 60 Hz (configurable) | 50 – 60 Hz (configurable) | 50 – 60 Hz (configurable) |
| DIP switches | DIP switches | DIP switches | DIP switches, Software (EASY Setup) | DIP switches |
| Yes, stable reading | Yes, stable reading | Yes, stable reading | Yes, stable reading | Yes, stable reading |
| 6,2 x 93,1 x 102,5 mm | 6,2 x 93,1 x 102,5 mm | 6,2 x 93,1 x 102,5 mm | 6,2 x 93,1 x 102,5 mm | 6,2 x 93,1 x 102,5 mm |
| 1,5 kVac (3-way) | 1,5 kVac (3-way) | 1,5 kVac (3-way) | - | 1,5 kVac (3-way) |
| Digital (optocoupler) | Digital (optocoupler) | Digital (optocoupler) | - | Digital (optocoupler) |
| 32 bit floating point | 32 bit floating point | 32 bit floating point | 32 bit floating point | 32 bit floating point |
| Black | Black | Black | Black | Black |
| PBT | PBT | PBT | PBT | PBT |
| 45 g | 45 g | 45 g | 45 g | 45 g |
| -20..+65 °C | -20..+65 °C | -20..+65 °C | -20..+65 °C | -20..+65 °C |
| Clamp terminals / bus | Clamp terminals / bus | Clamp terminals / bus | Clamp terminals / bus | Clamp terminals / bus |
| IP20 | IP20 | IP20 | IP20 | IP20 |
| 0,1% (max range) | 0,1% (max range) | 0,1% | 0,1% | 0,1% |
| < 100 ppm/K | < 100 ppm/K | < 100 ppm/K | < 100 ppm/K | < 100 ppm/K |
| Fault Alarm | Fault Alarm | Fault Alarm | Fault Alarm | Fault Alarm |
| fault and cut-off configuration, filter | fault and cut-off configuration, filter | fault and cut-off configuration, filter | RTD type / connection, filter, measure range, error, output inversion, over-range | fault and cut-off configuration, filter |
| CE, UL-UR CSA | CE | CE | CE | CE, UL-UR CSA |
| EN 61000-6-4, EN 61000-6-2, EN 61010-1 | EN 61000-6-4, EN 61000-6-2, EN 61010-1 | EN 61000-6-4, EN 61000-6-2, EN 61010-1 | EN 61000-6-4, EN 61000-6-2, EN 61010-1 | EN 61000-6-4, EN 61000-6-2, EN 61010-1 |
| 1 | 1 | 1 | 1 | 1 |
| Pt100 IEC 751 standard / EN 60751 – ITS90 Range: -150..+650 °C Min span: 50 °C Current on transmitter: 900 µA Connection: 2,3,4 wires Max cable resistance: 20 Ω | Pt100 IEC 751 standard / EN 60751 – ITS90 Range: -200..+160 °C Min span: 20 °C Current on transmitter: 900 µA Connection: 2,3,4 wires Max cable resistance: 20 Ω | Pt1000 EN 60751/A2 – ITS90 Range: -200..+210 °C Min span: 30 °C Current on transmitter: < 350 µA Connection: 2,3,4 wires Max cable resistance: 50 Ω | Pt100 EN 60751/A2 – ITS90 Range: -200..+650 °C Min span: 20 °C Connection: 2,3,4 wire Ni100 Range: -60..+250 °C Min span: 20 °C Connection: 2,3,4 wires | Thermocouple Type: J,K,E,N,S,R,B,T (ITS90) Min span: 100 °C Impedance: 10 MΩ Semiconductor sold joint ADC 13 bit Precision: 0,15 °C Update: 10 s Max voltage: ±32 V |
| 1 | 1 | 1 | 1 | 1 |
| VOLTAGE Range: 0..10 / 10..0 / 0..5 / 1..5 V Min load resistance: 2 kΩ CURRENT Range: 4..20 / 20..4 / 0..20 / 20..0 mA Max load resistance: 500 Ω Protection: 25 mA | VOLTAGE Range: 0..10 / 10..0 / 0..5 / 1..5 V Min load resistance: 2 kΩ CURRENT Range: 4..20 / 20..4 / 0..20 / 20..0 mA Max load resistance: 500 Ω Protection: 25 mA | VOLTAGE Range: 0..10 / 10..0 / 0..5 / 1..5 V Min load resistance: 2 kΩ CURRENT Range: 4..20 / 20..4 / 0..20 / 20..0 mA Max load resistance: 500 Ω Protection: 25 mA | CURRENT Range: 4..20 / 20..4 mA (2 wire) Load resistance: 1 kΩ Resolution: 0,5 µA (15 bit+sign) Protection: 30 mA | VOLTAGE Range: 0..10 / 10..0 / 0..5 / 1..5 V Min load resistance: 2 kΩ CURRENT Range: 4..20 / 20..4 / 0..20 / 20..0 mA Max load resistance: 500 Ω Nominal voltage: 24 Vac/dc Current: 60 mA Overvoltage protection: 50 V Settable hysteresis / alarm trip |
| < 50 ms (without filter) < 200 ms (with filter) 1 mV, 2 µA | < 50 ms (without filter) < 200 ms (with filter) 1 mV, 2 µA | < 50 ms (without filter) < 200 ms (with filter) 1 mV, 2 µA | < 220 ms (without filter) < 620 ms (with filter) 1 mV, 2 µA | < 40 ms (without filter) < 88 ms (with filter) 1 mV, 2 µA |
| K109PT | K109PT-HPC | K109PT1000 | K120RTD | K109TC |

COMPACT SIGNAL CONVERTERS AND ISOLATORS

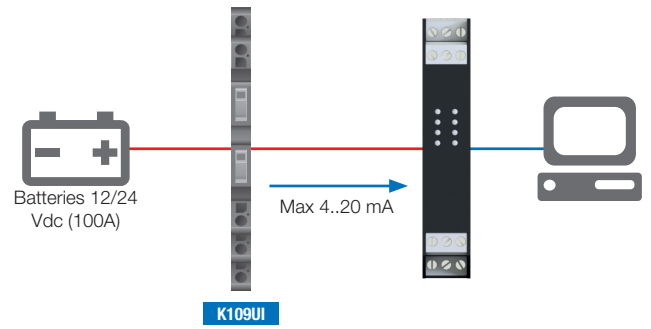
| | FREQUENCY | | | SERIAL | | |
|------------------------|--|---|--|--|---|---|
| | K111 | K111D | K112 | K107A | K107B | K107USB |
| |  |  |  |  |  |  |
| | Frequency threshold with 2 outputs | Frequency splitter / repeater with 2 isolated outputs | Digital sensor amplifier with 2 outputs | RS485↔RS485 serial isolator/repeater | RS232↔RS485 serial isolator/converter | USB↔RS485 serial isolator/converter |
| GENERAL DATA | | | | | | |
| Power supply | 19,2.. 30 Vdc | 19,2..30 Vdc | 19,2.. 30 Vdc | 19,2..30 Vdc | 19,2..30 Vdc | By USB port |
| Side Power | Yes | Yes | Yes | Yes | Yes | - |
| Hot swapping | Yes | Yes | Yes | Yes | Yes | Yes |
| Current consumption | < 25 mA | < 25 mA | < 25 mA | 22 mA (24 Vdc) | 22 mA (24 Vdc) | 60 mA |
| Power consumption | 500 mW | < 500 mW | 500 mW | 500 mW | 500 mW | - |
| A/D Conversion | 14 bit | 14 bit | 14 bit | | | |
| Rejection | 50 / 60 Hz | 50 / 60 Hz | 50 / 60 Hz | 50 / 60 Hz | 50 / 60 Hz | 50 / 60 Hz |
| Settings | DIP switches, Software (EASY Setup) | DIP switches, Software (EASY SETUP) | DIP Switches | DIP switches | DIP switches | DIP switches |
| Filter | Configurable | With programmable cutoff frequency | | Yes, stable reading | Yes, stable reading | Yes, stable reading |
| Dimensions (w x h x d) | 6,2 x 93,1 x 102,5 mm | 6,2x93,1x102,5 mm | 6,2 x 93,1 x 102,5 mm | 6,2 x 93,1 x 102,5 mm | 6,2 x 93,1 x 102,5 mm | 6,2 x 93,1 x 102,5 mm |
| Isolation | 1,5 kVac (3 ways) | 1,5 kVac (3 ways) | 1,5 kVac (3-way) | 1,5 kVac (3-way) | 1,5 kVac (3-way) | 1,5 kVac (USB // RS485) |
| Isolation technique | Digital / Optocoupler | Digital / Optocoupler | Digital (optocoupler) | Digital (optocoupler) | Digital (optocoupler) | Digital (optocoupler) |
| Data processing | 32 bit floating point | 32 bit floating point | 32 bit floating point | 32 bit floating point | 32 bit floating point | 32 bit floating point |
| Colour | Black | Black | Black | Black | Black | Black |
| Enclosure | PBT | PBT | PBT | PBT | PBT | PBT |
| Weght | 45 g | 45 g | 45 g | 45 g | 45 g | 45 g |
| Operating temperature | -20..+65 °C | -20..+65°C | -20..+65 °C | -20..+65 °C | -20..+65 °C | -20..+65 °C |
| Connections | Clamp terminals / bus | Clamp terminals / bus | Clamp terminals / bus | Clamp terminals / bus | Clamp terminals / bus | Clamp terminals / bus |
| Protection degree | IP 20 | IP20 | IP 20 | IP20 | IP20 | IP20 |
| Status indicators | Power ON Threshold Error | Power ON Output status | Power ON Output status | Power ON Data Inverted connection | Power ON Data Inverted connection | Power ON Data Inverted connection |
| Special functions | Signal Splitter/Repeater Dual programmable Limit Alarm trip | Signal Splitter/Repeater Frequency divider (max f/2566) | - | - | - | Compliance to USB 1.1 and 2.0 Plug&play for Windows O.S. Multiple connection on the same PC |
| Communication | - | - | - | Automatic handshake Baud rate: 1.200..115.200 bps | Automatic handshake Baud rate: 1.200..115.200 bps | |
| Approvals | CE | CE | CE | CE, UL-UR CSA | CE, UL-UR CSA | CE, UL-UR CSA |
| Norms | EN 61000-6-4, EN 61010-6-2, EN 61010-1 | EN 61000-6-4, EN 61010-6-2, EN 61010-1 | EN 61000-6-4, EN 61010-6-2, EN 61010-1 | EN 61000-6-4, EN 61000-6-2, EN 61010-1 | EN 61000-6-4, EN 61000-6-2, EN 61010-1 | EN 61000-6-4, EN 61000-6-2, EN 61010-1 |
| INPUT DATA | | | | | | |
| Channels | 1 | 1 | 1 | 1 | 1 | 1 |
| Type | Contact IEC 1131.2 (type 1) Namur (DIN 19234, EN 60947-5-6) NPN / PNP (12 o 22 V) 2/3 wires Reed Photocell Max voltage: ±28 Vdc Max frequency 20 kHz min 1 pulse every 116 minutes | IEC 1131.2 free contact (type 1) Namur (DIN 19234, EN 60947-5-6) NPN / PNP (12 or 22 V) 2/3 wires Reed Photocell Voltage: max ±28 Vdc Frequency: Max 20 kHz, min 1 pulse each 116 minutes | Contact IEC 1131.2 (type1) Namur (DIN 19234, EN 60947-5-6) NPN / PNP (12 o 22 V) 2/3 wires Reed Photocell Max frequency: 400 Hz | SERIAL RS485 Half duplex, 31 nodes, line termination, protection up to 30 Vdc | SERIAL RS232, protection up to 30 Vdc | SERIAL USB interface, standard USB 1.0/2.0 compliance, USB A and MINI USB B connection |
| OUTPUT DATA | | | | | | |
| Channels | 2 | 2 | 2 | 1 | 1 | 1 |
| Type | N.2 threshold channels, PNP, BJT, Mosfet; Max load: 60 mA / 24 Vdc | 2-CH trip amplifier, PNP, BJT, Mosfet; max rating > 60 mA / 24 Vdc | PNP e NPN simultaneous channels Max current 200 mA Max voltage 30 V (continuous), 50V (pulse) | SERIAL RS485 half duplex, 31 nodes, terminal, protection up to 30 Vdc | SERIAL RS485 half duplex, 31 nodes, terminal, protection up to 30 Vdc | SERIAL RS485, max 31 nodes, spring cage terminal block |
| ORDER CODES | | | | | | |
| Code | K111 | K111D | K112 | K107A | K107B | K107USB |

APPLICATION EXAMPLES

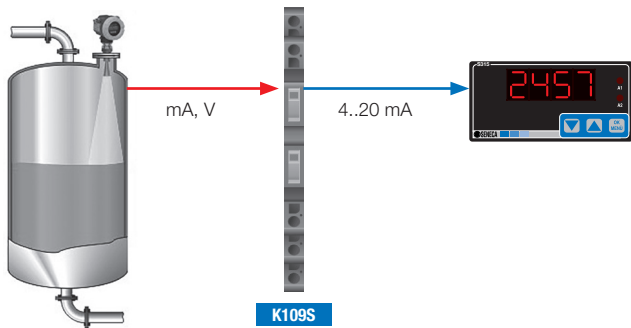
UNIVERSAL ANALOG SIGNAL CONVERSION



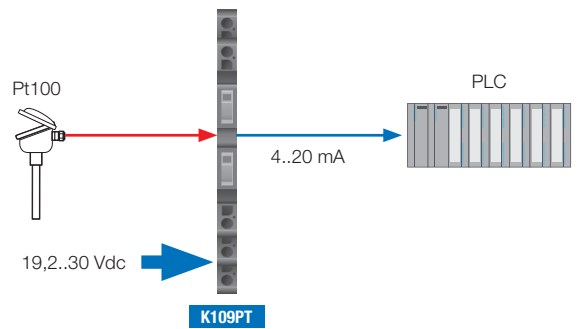
BATTERY VOLTAGE MONITORING



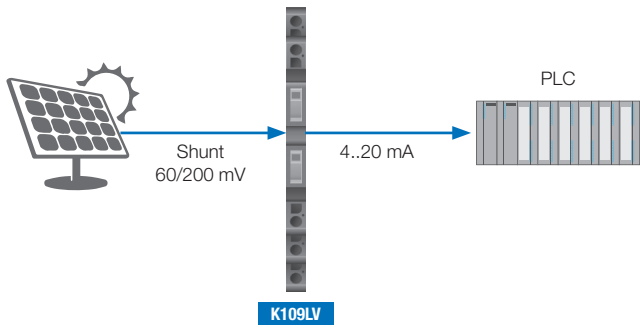
ANALOG SIGNAL ISOLATION, RETRANSMISSION, VISUALIZATION FROM 2-WIRE SENSOR



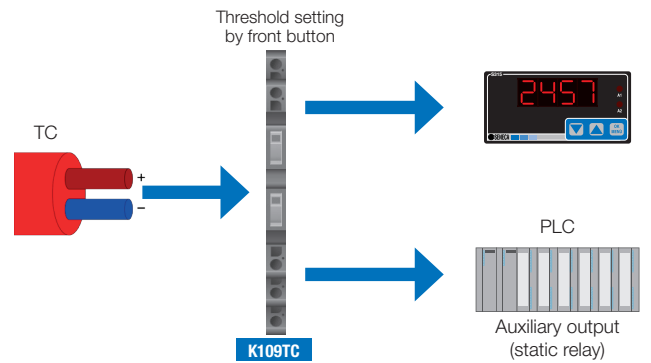
PT100 TEMPERATURE TO ANALOG SIGNAL CONVERSION



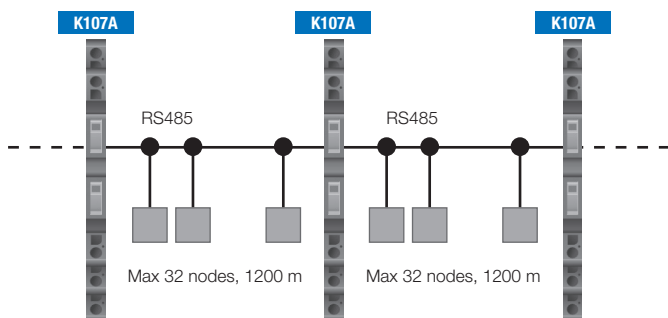
STRING CURRENT MEASUREMENT AND TRANSMISSION IN PHOTOVOLTAIC PLANT



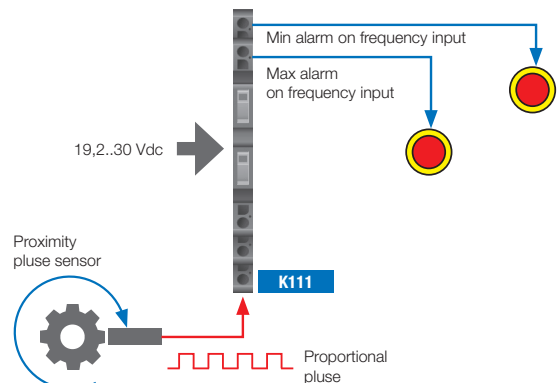
CONVERSION AND RETRANSMISSION OF A TEMPERATURE VALUE FROM THERMOCOUPLE



SERIAL RS485 REPETITION WITH GALVANIC ISOLATION



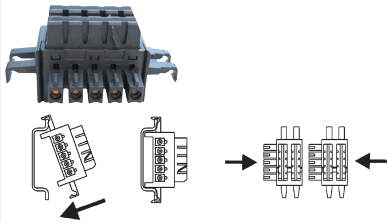
FREQUENCY CONVERSION WITH ALARM



SOFTWARE & ACCESSORIES

K-BUS

Expandable power supply connector
(EN 60175)



ORDER CODES

K-BUS 2 slot expandable power supply connector

K-SUPPLY

Redundant power supply module



- Power supply 19,2..30 Vdc
- Nr 2 inputs with shared negative terminal
- Max voltage drop 300 mV
- Max current per terminal 4 A
- Differential mode filter
- Built-in protection against overvoltages

ORDER CODES

K-SUPPLY Power supply module with electronic protections

EASY SETUP / EASY LP

Plug&Play software configuration

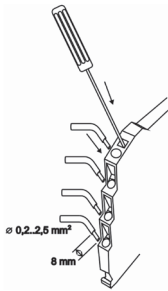


K111
K121
K120RTD

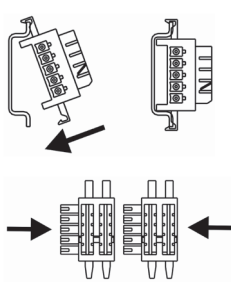
• Free download on www.seneca.it

CONNECTION AND INSTALLATION

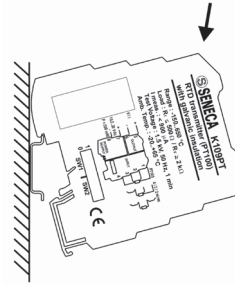
CAGE CLAMP CONNECTION



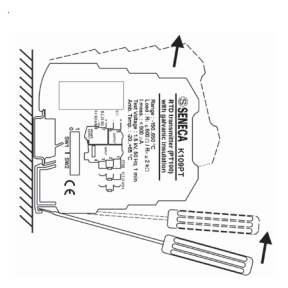
K-BUS CONNECTOR



INSERTING MODULE ON DIN GUIDE



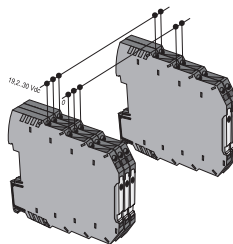
EXTRACTING MODULE FROM DIN GUIDE



POWER SUPPLY TECHNIQUE

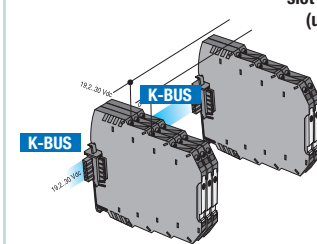
SUPPLY SYSTEM. Except from loop powered instruments which aren't bus powered, K Line signal conditioners can be powered in 3 different ways: by the clamp terminal block (24 Vdc direct from power supply) or by SMART SUPPLY system. SMART SUPPLY system is based on expandable K-BUS connector. Up to 16 devices, the distribution of power supply is possible connecting a single device at voltage source, as whole consumption doesn't exceed 400 mA. Over 16 and up to 75 devices, with maximum current consumption of 1,6 A (approx 21 mA per module), it's necessary K-SUPPLY module that gets overvoltages protections on-board.

POWER SUPPLY ON CLAMP TERMINAL



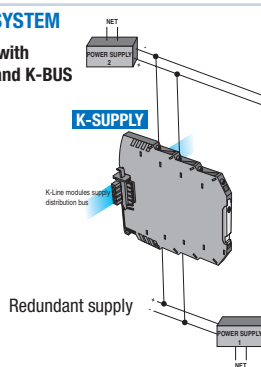
SMART SUPPLY SYSTEM

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

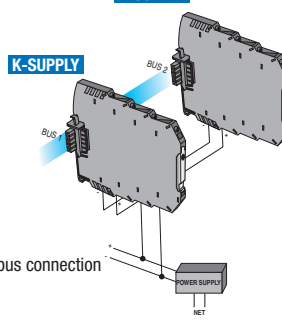


SMART SUPPLY SYSTEM

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



K-SUPPLY



Parallel inputs connection (2 A output)

3

EASY USB USB - UART TTL Converter



Power supply 5V @100mA (by PC)
Protection degree IP20
Serial UART TTL RJ11 connector, baud rate from 300 bps up to 250 Kbps
Serial USB USB type A standard 1.0, 1.1 and 2.0
Dimension 84x21x17 mm
O.S. Windows, Mac OS, OS-X, Linux

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EASY-USB USB - UART TTL Converter

S117P1

Serial converter RS232-USB, TTL-USB, RS485-USB



- Asynchronous serial RS232, RS485 and TTL conversion
- Multiply connections of more S117P1 on the same computer
- Standard compatibility USB 1.0, 1.1, 2.0
- RS485 communication, max 32 nodes
- Power for external modules (100mA, 12 Vdc)
- Accessories included: USB cable, TTL cable, CD driver + EASYLP (configuration software for K120RTD, K121, T120 and T121)

ORDER CODES

S117P1 Asynchronous serial converter RS232<-> USB, RS485<->USB and TTL<->USB complete of USB cable, TTL cable, Cd driver + EASYLP (configuration software)