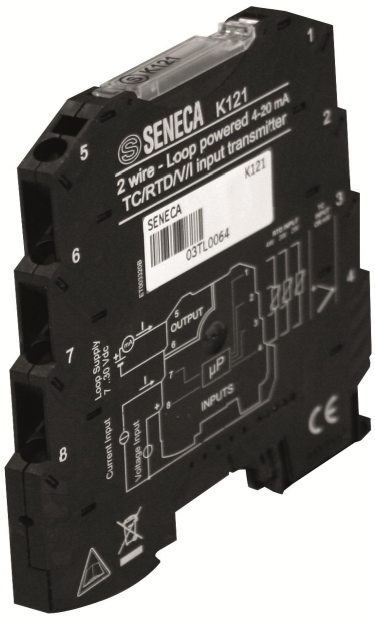
K LINE • Converters / Isolators
6,2 mm housing

K121

Universal Converter (RTD, TC, Ohm, mA, V) to 4..20mA (loop powered)



ALL-IN-ONE

LOOP POWERED CONVERTER

CE

Power supply	7..30 Vdc
Universal Input	**Thermocouple** (J,K,R,S,T,B,E,N) **RTD** (PT100-500-1000-Ni100) with 2,3,4 wire connections **Voltage** -150…+150mV, -30…+30V **Current** -24…+24mA **Potentiometer** 500 Ω -10 KΩ **Resistance** up to 1760 Ω
Output	4..20 mA (loop powered)
Galvanic isolation	1,5 kVac
Configuration	Through EASY-LP software (s117p
Operating temperature	-20..+65 °C




➲For further information, please visit www.seneca.it

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K121

Universal Converter (RTD, TC, Ohm, mA, V) to 4..20mA (loop powered)

ORDER CODE

Model	**K121**	Universal Converter (RTD, TC, Ohm, mA, V) to 4..20mA (loop powered)
Programming Kit	**S117P**	Easy-LP software + USB adapter

TECHNICAL FEATURES

GENERAL FEATURES

Power supply	7..30 Vdc
Power consumption	< 660 mW
Channels number	1 input, 1 outputs
Galvanic isolation	1.5 kVac, 2 ways
Power supply on side terminals	Yes
Programming	Via Easy-LP program, using S117P (USB adapter)
Dimensions (wxhxd)	6.2 x 93.1 x 102,5 mm
Operating temperature	-20..+65°C
Connections	Spring clamps (EN 60175)
Approvals	CE, EN 61000-6-4, EN 64000-6-2, EN 61010-1

TABLE OF INPUT RANGE

	Input	Range	Calibration error	EMI	Minimum Span	Resolution	Standard
Thermocouple	J	-210..1200 °C	0,1 %	< 0,5 %	50 °C	5 µV	EN 60584
	K	-200..1372 °C	0,1 %	< 0,5 %	50 °C	5 µV	EN 60584
	R	-50..1768 °C	0,1 %	< 0,5 %	100 °C	5 µV	EN 60584
	S	-50..1768 °C	0,1 %	< 0,5 %	100 °C	5 µV	EN 60584
	T	-200..400 °C	0,1 %	< 0,5 %	50 °C	5 µV	EN 60584
	B	0..1820 °C	0,1 %	< 0,5 %	100 °C	5 µV	EN 60584
	E	-200..1000 °C	0,1 %	< 0,5 %	50 °C	5 µV	EN 60584
	N	-200..1300 °C	0,1 %	< 0,5 %	50 °C	5 µV	EN 60584
RTD	Ni100	-60..250 °C	0,1 %	< 0,5 %	20 °C	6 mΩ	DIN 43760
	Pt100	-200..650 °C	0,1 %	< 0,5 %	20 °C	6 mΩ	EN 60751
	Pt500	-200..650 °C	0,1 %	< 0,5 %	20 °C	28 mΩ	
	Pt1000	-200..200 °C	0,1 %	< 0,5 %	20 °C	28 mΩ	
Voltage	mV	-150..150 mV	0,1 %	< 0,5 %	2,5 mV	5 µV	
Potent.	Ω	500.. 10000Ω	0,1 %	< 0,5 %	10 %	0.0015 %	
Resist.	Ω	0..400 Ω	0,1 %	< 0,5 %	10 Ω	6 mΩ	
Resist.	Ω	0..1760 Ω	0,1 %	< 0,5 %	10 %	28 mΩ	
Voltage	V	-30 ..30 Vdc	0,1 %	< 0,5 %	0,5 V	~ 1 mV	
Current	mA	-24 ..24 mA	0,1 %	< 0,5 %	0,5 mA	~ 1 µA	

INPUT

Channels	1
Potentiometer	From 500Ω to 10 KΩ, Input impedance 10 MΩ
Thermocouple	Type J,K,R,S,T,B,E,N, Input impedance 10 MΩ, cold junction compensation -40 ..65 ± 1,5°C Settable, fault sensor detection settable
RTD / Resistance	Type PT100-500-1000-Ni100 with 2,3,4 wire connections, Excitation current 375 µA
Voltage (mV)	-150…+150 mV, Input impedance 10 MΩ
Voltage (V)	-30…+30 V, Input impedance 200 KΩ
Current	-24…+24 mA, Input impedance 40 Ω

OUTPUT

Channels	1
Type	4..20 mA (loop powered)
Load resistance	1 KΩ @ 28 Vdc, 21 mA
Resolution	2 µA (< 13 bit)
Output in case of over-range	+ 2,5% of end scale, - 2,5% of start scale
Output in case of fault	+ 5% of end scale, - 5% of start scale

SCHEMES, PROGRAMMING

INPUTS

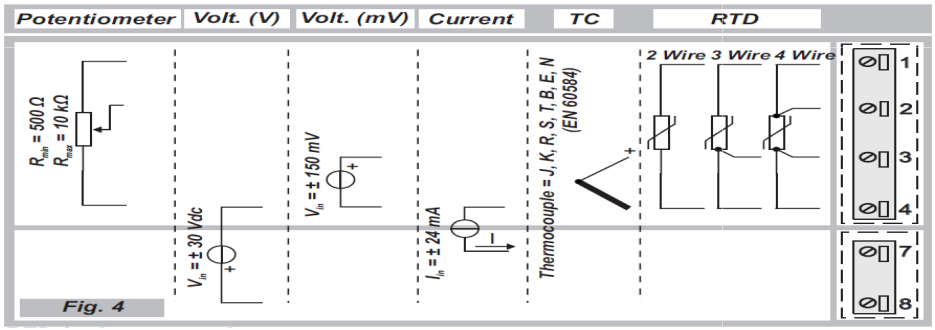


Fig. 4

EASY-LP SOFTWARE SCREENSHOTS

OUTPUT & POWER SUPPLY

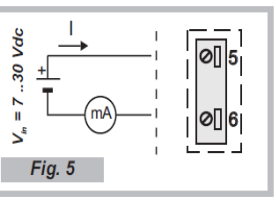
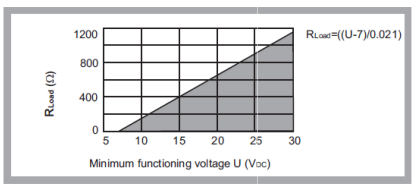
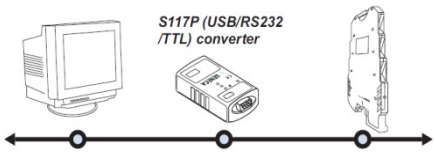


Fig. 5

DIAGRAM: LOAD RESISTANCE VS VOLTAGE



CONFIGURATION



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via Germania, 34 • 35127 Padova - Italy - Ph +39 049 87.05.359 (.408)
Fax +39 049 87.06.287 • www.seneca.it • info@seneca.it