

SINEAX V620

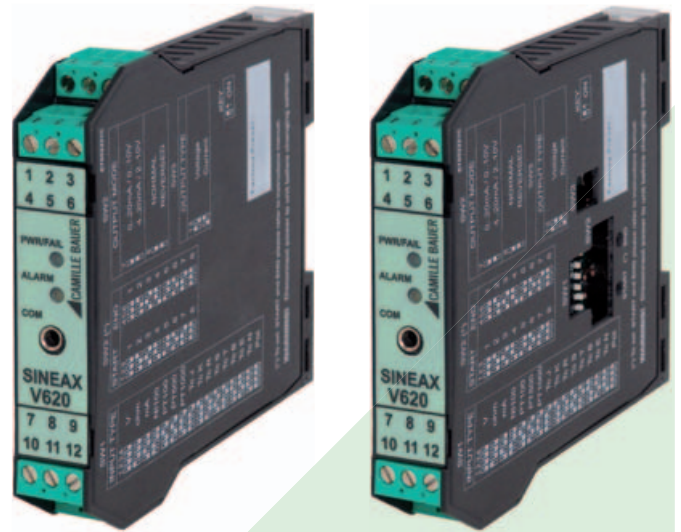
Universal Converter

Universal converter for mA, V, TC, RTD, Ω



Features / Benefits

- Input: Voltage, current, RTD, TC, NTC, potentiometer, rheostat
- Strobe: Input (control analog output)
- Output: Current, voltage, relay (SPST)
- Resolution: Programmable from 11 to 15 bit + sign
- Accuracy: 0.1%
- Response time: 35 ms (11 bit + sign)
- Isolation: 1.500 V AC at 3 ways
- Power supply: 9 ... 40 V DC, 19 ... 28 V AC



General Data

Power supply	9 ... 40 V DC, 19 ... 28 V AC																		
Consumption	Max. 2.5 W; 1.6 W at 24 V DC (20 mA output)																		
Isolation	1.500 V AC at 3 ways																		
Input protection	Against pulse overvoltages 400 W/ms																		
Output/Supply protection	Against pulse overvoltages 400 W/ms																		
DIP switch configuration	Input type, start-end, output mode (zero elevation, scale inversion), output type (mA, V)																		
Software configuration	Start-end scale, root extraction, burn-out, etc.																		
Status indicators (LED)	Power supply, out scale, error, alarm																		
Operating temperature	- 10 ... + 60 °C																		
Humidity	Up to 90% at 40 °C non condensing																		
Memory	EEPROM for all setup data; retention time: 40 years																		
Accuracy	V	mA	Ω	Ni100	Pt100	Pt500	Pt1000	KTY81	KTY84	TC J	TC K	TC R	TC S	TC T	TC B	TC E	TC N	Vout	
Calibration	0.1%																	0.3%	
Thermal drift	0.01% / °K																		
Linearity	0.05%	0.05%			0.02% (>0°C); 0.05%					0.2 °C	0.2 °C	0.5 °C	0.5 °C		1.5 °C	0.2 °C	0.2 °C	0.01%	
EMI	< 1%	< 1%								< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	
Con-formity	CE																		

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Input Data

Voltage input	9 bipolar ranges from 75 mV to 20 V, input impedance 1 M Ω , max. resolution 15 bit + sign
Current input	Bipolar ranges up to 20 mA, input impedance 50 Ω , max. resolution 1 μ A
RTD input	Pt100, Pt500, Pt1000, Ni100, KTY81, KTY84 und NTC, 3 or 4 wires connection, excitation current 0.65 mA, resolution 0.1 $^{\circ}$ C, RTD or cable interruption automatic detection. Resistive value for NTC: < 25 k Ω , KTY81, KTY84 and NTC settable only by software
TC input	TCJ, K, R, S, T, B, E, N, resolution: 2.5 μ V, TC interruption automatic detection, input impedance > 5 M Ω
Potentiometer input	Excitation voltage 300 mV, input impedance > 5 M Ω , potentiometer range from 500 Ω to 10 k Ω (with parallel resistor 500 Ω)
Rheostat input	End scale min. 500 Ω , max. 25 k Ω
Strobe input	Alternative to relay output
Response time	35 ms (11 bit + sign) ... 140 ms (15 bit + sign)

Output Data

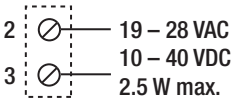
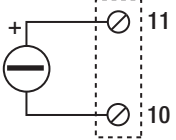
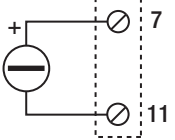
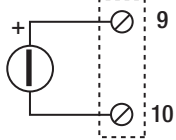
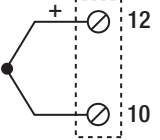
Current output	0 ... 20 / 4 ... 20 mA, max. load resistance: 600 Ω
Voltage output	0 ... 5 / 0 ... 10 / 1 ... 5 / 2 ... 10 V, min. load resistance: 2 k Ω
Relay output	Alternative to strobe input NC relay contact, NO in case of alarm
Resolution	2.5 μ A / 1.25 mV
Output retransmission	Isolated analog output, current / voltage output Supplied active output connected to passive inputs

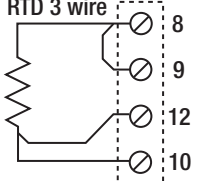
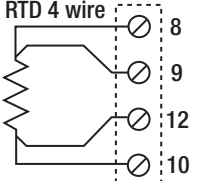
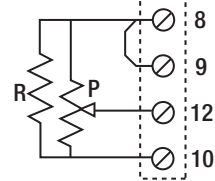
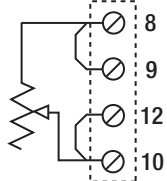
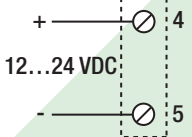
Order Codes

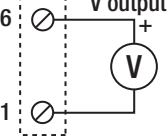
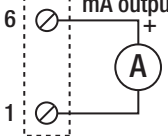
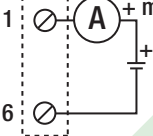
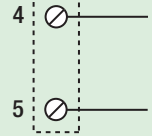
Description	Code
Open cover for DIP-switch Power supply 10 ... 40 V DC, 19 ... 28 V AC	162 834
Closed cover (DIP-switch inside) Power supply 10 ... 40 V DC, 19 ... 28 V AC	163 171
Accessories: PC configuration cable	163 121

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Electrical connections

Power supply	Current input	Voltage input	Thermocouple input
 <p>2 — 19 – 28 VAC 3 — 10 – 40 VDC 2.5 W max.</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>mA input</p>  <p>The loop is powered by the sensor</p> </div> <div style="text-align: center;"> <p>mA input (2 wires)</p>  <p>The loop is powered by the module</p> </div> </div>	<p>V input</p> 	<p>mV/TC input</p> 

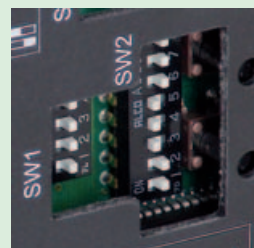
Thermoresistance input	Potentiometer / Rheostat input	Strobe input
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>RTD 3 wire</p>  </div> <div style="text-align: center;"> <p>RTD 4 wire</p>  </div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div>	<p>Strobe input</p>  <p>Alternative to relay output</p>

Retransmitted output	Relay output
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>V output</p>  <p>Voltage</p> </div> <div style="text-align: center;"> <p>mA output</p>  <p>Current (supplied active output connected to passive inputs)</p> </div> <div style="text-align: center;"> <p>mA output</p>  <p>External power supply current</p> </div> </div>	<p>Relay output</p>  <p>Enabled alternatively to strobe input. Alarm NO / NC contact relay</p>

Configuration

1. DIP-switch

- Input type
- Zero and Span
- Output type
- Scale inversion



2. Handheld

- Min./max. range scale; digital filter; square root extraction
- Open and short circuit supervision
- Analog scale; error analog output value
- Rejection frequency (50 ... 60 Hz)
- Sampling time / Resolution
- Measure 2, 3, 4 wires for RTD
- Relay alarm control, strobe configuration



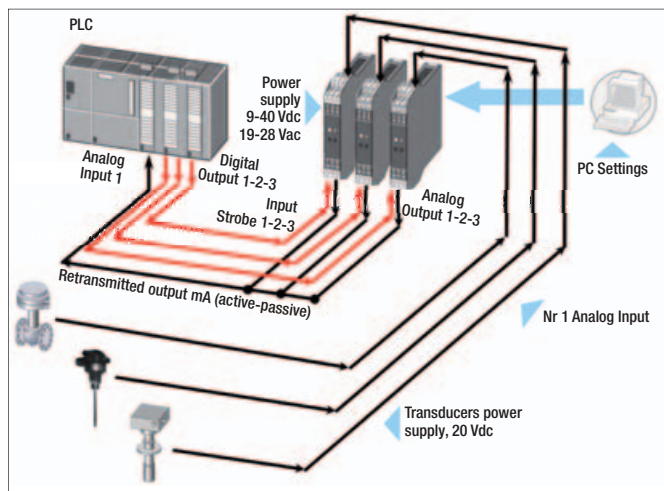
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3. Software

- Min./max. range scale; digital filter; square root extraction
- Open and short circuit supervision
- Analog scale; error analog output value
- Frequency filter (50 ... 60 Hz)
- Sampling time / Resolution
- Measure 3, 4 wires for RTD
- Relay alarm control, strobe configuration

Application examples

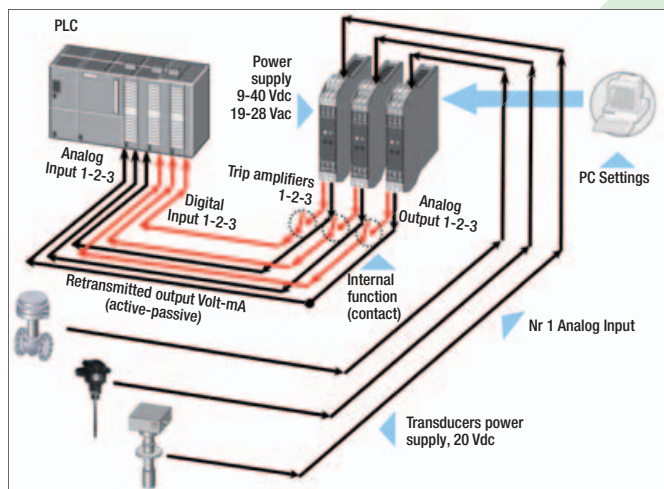
Multiplexer



Advantage:

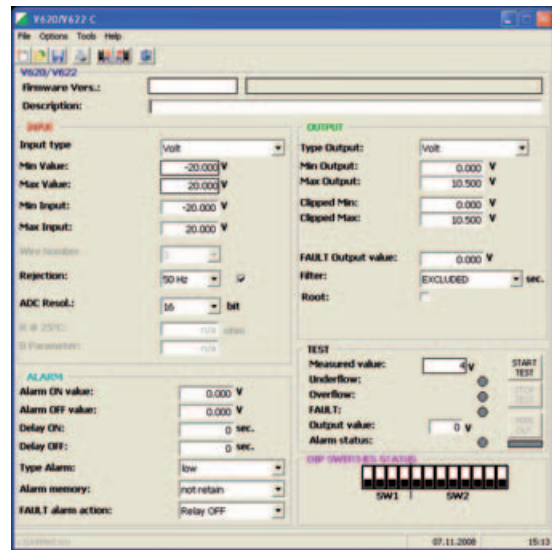
Just 1 analog input (PLC) is able to read signals outcoming from several SINEAX V620.

Trip amplifier

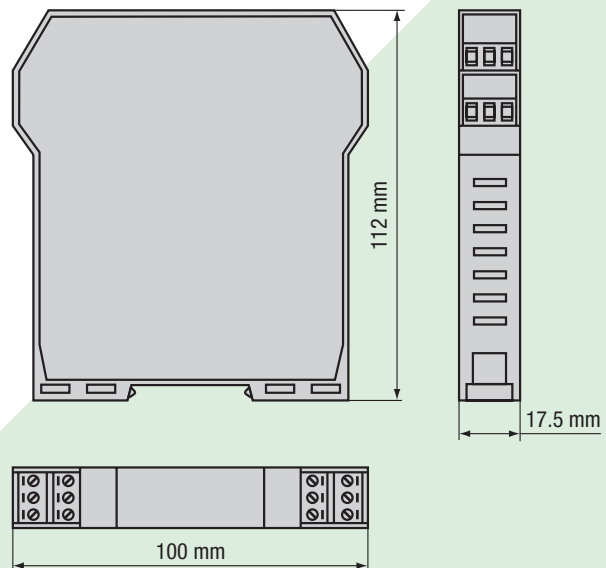


Advantage:

SINEAX V620 can handle also threshold by a relay settable on 0 ... 100% of universal input value.



Dimensional drawing



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