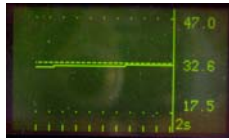




ProVU4 Compact Controller



- Single loop temperature / process controller
- LCD graphic display with red/green backlight
- 1/4 DIN (96 x 96mm)
- Ramp soak profile with timed delay
- 30mm depth behind panel
- Universal Input & 4 Outputs

An easy-to-use controller with many features to simplify operation. A set-up wizard aids configuration of the controller on first power-up and operation is intuitive with text language screens with logical menu navigation. The ProVU4 compact is ideal for OEM applications where space is limited, the fixed build open PCB design has a panel depth of *only* 30mm.

Specification

Features

Display	160 x 80 pixel, monochrome graphic LCD with a dual colour (red/green) backlight
Languages	English, Russian
Control Types	Full PID with Pre-tune, Manual tuning, or On-Off control. Single control output
Ramp / dwell Program	Ramp rate selectable 1 to 9999 LSD per hour and infinite (step), Delay timer and dwell settings HH:MM:SS or continuous soak
Trending	120 of 240 point trending point shown on a scrollable window with autoscaling. Record active alarms plus SP & PV or Max/Min PV between samples. Trend sample rates 1;2;5;10;15;30 sec or mins.
Output Configuration	4 outputs fixed operation, Control output – SSR driver, Output 2 – Alarm relay, Output 3 – Event/Fan relay and Output 4 – End of program relay

Input

Thermocouple	J, K, B, C, D, E, J, L, N, R, S, T, PtRh 20%:40%
RTD	3 Wire PT100, 50Ω per lead maximum (balanced)
DC Linear	0 to 20mA, 4 to 20mA, 0 to 50mV, 10 to 50mV, 0 to 5V, 1 to 5V, 0 to 10V, 2 to 10V. Scaleable -9999 to 10000, with adjustable decimal point to 3 places with 5 display digits
Impedance	>10MΩ resistive, except DC mA (5Ω) and V (47kΩ).
Accuracy	±0.1% of full range, ±1LSD (thermocouple ±1°C for internal CJC)
Sampling	4 per second, 16 bit resolution
Sensor Break Detection	Thermocouple & RTD - <i>Control goes to off. High alarms activate.</i> Linear (4 to 20mA, 2 to 10V and 1 to 5V only) - <i>Control goes to off. Low alarms activate.</i>

Control

Tuning Types:	Automatic Pre-Tune and Manual Tuning.
Proportional Bands	0.5% to 999.9% of input span in 0.1% increments, or On/Off control.
Automatic Reset:	Integral Time Constant, 1s to 99min 59s and OFF
Rate:	Derivative Time Constant, 1s to 99 min 59s and OFF
Manual Reset:	Proportional Output Power Bias 0 to 100%.
Differential:	ON/OFF switching differential 0.1% to 10.0% of input span
Approach Control	10 to 100. Larger values bias the approach control for greater speed to setpoint, smaller values bias for overshoot suppression.
Cycle Time:	Selectable from 0.5 to 512 seconds.

Alarms

Alarm types	Process High, Process Low, Band and Deviation. Band and Deviation (high or low) alarm values are relative to the current setpoint value. Hysteresis; A dead-band from 1 LSD to full span (in display units) before deactivation of the alarm.
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Outputs

Control Output:SSR Driver	Drive capability >10V DC in 500Ω minimum, non-isolated
Relays	Contacts SPST 2 Amp resistive at 120/240V AC, >500,000 operations, reinforced safety isolation from power / signal inputs and SSR driver output, basic isolation between relays.

Operating and Environmental

Temperature & RH	0 to 60°C (-20 to 80°C storage), 20% to 95% RH non-condensing
Power Supply	100 to 240V 50/60Hz ±10%, 7.5VA
Front Panel Protection	IP62

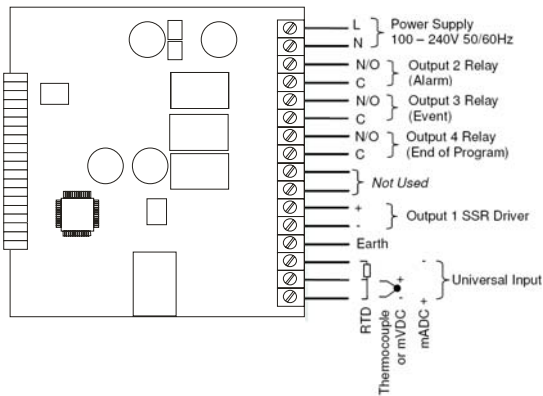
Conformance

EMI:	Complies with EN61326.
Safety Considerations:	Complies with EN61010-1. Pollution Degree 2, Installation Category II.

Weights & Dimensions

Weight:	0.2kg maximum.
Dimensions	96 x 96mm (Front Bezel). 30mm (Depth Behind Panel).
Mounting Panel:	Panel must be rigid. Maximum thickness 2.0mm.
Panel Cut-out Size:	92mm x 92mm. Tolerance +0.5, -0.0mm.
Ventilation	20mm gap required above, below and behind.

Wiring Connections



Ordering Code

Part Code	Description
VC0C00211110	ProVU4 Compact Controller, English Language
VC0C002111R0	ProVU4 Compact Controller, Russian Language

West Control Solutions – International Sales and Support

CHINA

Setra-ICG (Tianjin) Co., Ltd.
No.28 Wei 5 Road,
The Micro-Electronic Industry Park TEDA,
Xiqing District, Tianjin 300385
Tel: +86 22 8398 8096 Fax: +86 22 8398 8099
e-mail: china@West-CS.cn

FRANCE

Hengstler SA, 69 Rue de la Belle Etoile
Bat D - ZI Paris Nord II, 95700, Roissy
Tel: +33 (1) 77 80 90 40 Fax:+33 (1) 77 80 90 50
e-mail: info@westinstruments.com

GERMANY

PMA Prozeß- und, Maschinen- Automation GmbH,
Miramstraße 8, 7D -34123 Kassel
Tel: +49 (561) 505-1307 Fax: +49 (561) 505-1710
e-mail: mailbox@pma-online.de

UNITED KINGDOM

West Control Solutions
The Hyde Business Park, Brighton, East Sussex, BN2 4JU
Tel: +44 (0)1273 606271 Fax: +44 (0)1273 609990
e-mail: UK@West-CS.cn

USA

West Control Solutions
1675 Delany Road, Gurnee, IL 60031-1282
Tel: 847 662 2666 Fax: 847 662 6633
e-mail: NA@West-CS.cn

Brochures and datasheets are available for the complete range of West Control Solutions products, contact your local sales office or visit our website at: www.west-cs.com for more information.

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