

VAX - II



Multi-calibrator for PLC's and Control Systems

- Generates pulses and read frequency
- Converts any input into any output signal
- Powers, reads and simulates digital sensors
- Sources and reads mV, V and mA
- Powers, reads and simulates 2-wire transmitters
- Simultaneous input and output readings
- Outputs pre-set numbers of pulses
- Scale factors for flow readings
- Stop-watch pulse counting



Standard Specifications

SPECIFICATIONS

Function	Range	Resolution	Accuracy % of span	Remarks
Measure mVolts	0-120mV	0.01 mV	± 0.025 %	R-input > 20 MΩ
Output mVolts	0-120mV	0.01 mV	± 0.025 %	R-output 0.2 Ω
Measure Volts	0-120V	0.01 V	± 0.05 %	R-input 1 MΩ
Output Volts	0-12V	0.001 V	± 0.025 %	R-output 0.2 Ω
Measure mA	0-52mA	0.01 mA	± 0.05 %	R-input 3.5 Ω fused
Output mA	0-24mA	0.01 mA	± 0.05 %	R-max. 900 Ω
Transmitter Simulation	0-24mA	0.01mA	± 0.05%	V-max ext. 56 Volts
Measure frequency	0-10kHz auto range	0.01 Hz, f < 100 Hz 1 Hz, f > 100 Hz	± 0.01 Hz ± 1 Hz	> 300 kΩ, 100 kΩ at > 7.5 V > 300 kΩ, 100 kΩ at > 7.5 V
Counter input	0-10 ⁷ - 1 counts	1 count	infinite	> 300 kΩ, 100 kΩ at > 7.5 V
Counted pulse output	0-10 ⁷ - 1 counts	1 count	infinite	0 - 24 V/34 mA max.
Pulse output low freq.	0-100Hz	0.01Hz	± 0.01 Hz	0 - 24 V/34 mA max.
Pulse output high freq.	0-10kHz	1 Hz	± 1 Hz	0 - 24 V/34 mA max.

SPECIAL FEATURES

Frequency counter input threshold

Selectable at 0.02, 0.05, 0.1, 0.2, 0.5, 1.0, 2.0, 5.0 Volts

Pulse output level

Adjustable from 0.1 to 24 Volts with a resolution of 0.1 Volts

Output pulse form

AC symmetrical square wave, -50 mV zero based

Pulse output transmission speed

Adjustable from 1 to 10.000 bauds

Pulse output frequency

Selectable in Hz, Pulses/min. and Pulses/hour

Special functions

1. Programmable steps (2 to 6 steps manual/auto)
2. Signal ramping (up/dwell/down)
3. Scalling (engineering units)
4. Transmitter (signal converter)

Calibration reference

22°C (71.6°F) ± 1°C

Calibration

Traceable to international standards with correlation to NIST

Long term stability

± 0.03% of range/year

Indicated accuracies

Specified for 15°C (60°F) to 35°C (95°F). Outside these limits:
± 1 lsd max. on zero and ± 0.001% / °C of span

Operating temperature

-10°C to + 50°C (14°F to 122°F)

Storage temperature

-20°C to + 70°C (-4°F to 158°F)

Warm up time

2 minutes to rated accuracy

Relative humidity

0 to 90% non-condensing

Input/Output protection

70 Volts on millivolt input, 30 Volts on outputs, 200Volts on Volts input

Input/Output isolation

500VDC continuous

Output Voltage

Protected by load monitor, displays "load resistance too low"

Output Current

Protected by load monitor, displays "check loop"

Transmitter power supply

24VDC output current limited at 34 mA

Read-out

Simultaneous read-out of input and output values 3¼ or 4½ digits, depending on the selected range. Dialogue in English

Batteries

4 x 1.5 Volt, type LR14 (size C) alkaline or rechargeable NiCd

Battery life

22 hours with alkaline batteries at 20°C (68°F) 7 hours with 20 mA load

Low battery indication

"Bat" flashes as a pre-warning. After approx. 15 minutes unit stops working and indicates "replace batteries"

External power supply

By optional charger/line adaptor p/n 13603 230V or 110V - 50/60Hz

Connections

Suitable for 4mm test plugs

Protection

IP 53

Housing

Textured high-impact ABS plastic

Size

200 x 117 x 32 mm (8.0" x 4.7" x 1.3") without carrying case

Weight

0.9kg (2 pounds) including batteries, carrying case and test leads

ORDERING INFORMATION

Model VAX-II (includes carrying case, alkaline batteries, instruction manual, calibration certificate, spare fuse and a set of testleads)
Optional charger/line adaptor p/n 13603.
Please state line voltage 230V or 110V.

Continuing development sometimes necessitates specification changes without notice.