VersaCount™

When Versitility Counts.

V R VEEDER-ROOT

The Veeder-Root VersaCount 1/16 DIN size multifunction counter is the most **versatile** counter on the market today. Whatever your application, timing, counting, rate measuring, position indicating, volume measurement, speed controlling, length cutting or batch, shift, pulse or piece counting, – the VersaCount is the only device you need When Versatility Counts.

Timing

Counting

Rate Measurement

Position Indication

Speed Control

Length Cutting

Batch Counting

Shift Counting

Piece Counting

Volume Measurement

Versatility doesn't stop with functionality. The highest count frequency in the industry enables the VersaCount to perform in applications not previously possible with an electronic counter. What would speed be without accuracy? That's why the VersaCount features an unprecedented prescaler **accuracy to one ten thousandth**. Further, automation and precision control are achieved using **three presets** with signal times programmable up to **ten minutes**.

Veeder-Root is the first in the industry to offer a programming assistant where applications can easily be created, archived and printed using the proprietary Programming Assistant software. VersaCount XP models allow the user to easily **upload programs** via USB key or Ethernet connection.

VersaCount™

Versatile All-in-one 1/16 DIN size multi-function device
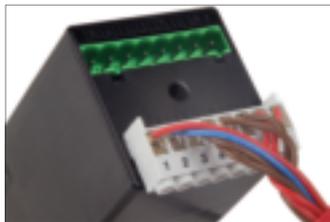
Fast installation and replacement with plug in terminals

View two separate outputs at the same time with large 2-line, easy to read display

Simple to operate with four large buttons

Easy to program - draft, save and print application programs using the Programming Assistant on a PC. (VersaCount XP[1] models can be programmed via USB or Ethernet connection)
[1]Available soon

Highlights

- Fast input frequency up to 60 kHz allows for high speed counting and measuring applications
- Up to 3 Presets for precision control (1 as absolute or trail preset, range or limit value; 2 with relay output and signal)
- Signal times programmable up to 10 minutes for a variety of application requirements
- Prescaler adjustable from 0.0001 to 99.9999 for industry leading precision

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GENERAL	Display	LCD reflective, 2 lines, counter value/presettings 6-digits; decimal point (up to 4 decimals)
	Digit height	1st line 9.3 mm (0.37") ; 2nd line 7.2 mm (0.28")
	Supply voltage	SELV: 12-30 VDC; protected against polarity reversal 24 VAC, 50/60 Hz, ± 10% / 115 VAC, 230 VAC, 50/60 Hz, ± 10%
	Sensor supply	Only for AC operation: 12-24 VDC load-dependent; max. 50 mA
	Storage of values	Non Volatile memory > 10 years
	Electrical connections	Plug-in screw-type connections / terminals
	Cable cross-section	1 - 1.5 mm² with wire-end sleeves
	Amplitude threshold	< 2 V and > 8 V or < 1 V and > 4 V at TTL-level amplitude max. 40 VDC
	Active edge	Programmable, positive for PNP-input, negative for NPN-input
	Pulse form	Any desired form (at max. frequency square 1:1)
	Count frequency	Up to 60 kHz
	Input resistance	Approx. 10 kohm
	Pulse duration min.	17 ms (30 Hz); 8 µs (60 kHz)
	Prescaler	0.0001 - 99.9999
	Reset	Manual reset via keyboard, external reset via static or dynamic programming, automatic reset after reaching Preset 2, via application input (programmable) and programmable Power-On Reset
	Set function	Setting to Preset 0 (independent of reset)
	Display and preset range	-999,999 to +999, 999
	Alarm signal	Display flashes when preset 0, 1 or 2 are active
	Signal times	0.01 seconds to 599.99 seconds or bistable programable
	Relay (Preset 1 and 2)	Change-over contact max.: 250 VAC / 30 VDC / 5 A
	Transistor (preset 1 + 2)	PNP-output 12 - 30 VDC, max. 50 mA for DC supply 12 - 24 VDC, max. 30 mA for AC supply
	Application output	PNP-output 12 - 30 VDC max. 20 mA for DC supply 12 - 24 VDC max. 20 mA for AC supply
COUNTER	Counter mode Input A,B	Unidirectional; adding or subtracting; directional input; Differential operation; add / sub; summation (totalizing) add / add; Phase discriminator single, double or quadruple evaluation
	Control input	Reset; Gate/Inhibit
	Preset modes	Absolute or trail, Range signal / limit values (signal1 < Preset1, signal2 > Preset 2)
	Application input/output	output: Prescaler out, Preset 0-out, Direction-out Input: Counter input add / sub, Keylock, Hold, Teach in, Reset, Set, Gate/Inhibit

DIMENSIONS		48 mm (1.89") x 48 mm (1.89") x 118 mm (4.65"), installation depth 110 mm (4.33"); DIN 43700

connecting terminal   bracket   Installation Cutout

48mm (1.89")   48mm (1.89")   max. 118mm (4.65")   8mm (.31")   45⁺⁰·³ (1.77"⁺·⁰¹")   45⁺⁰·³ (1.77"⁺·⁰¹")

VERSACOUNT™
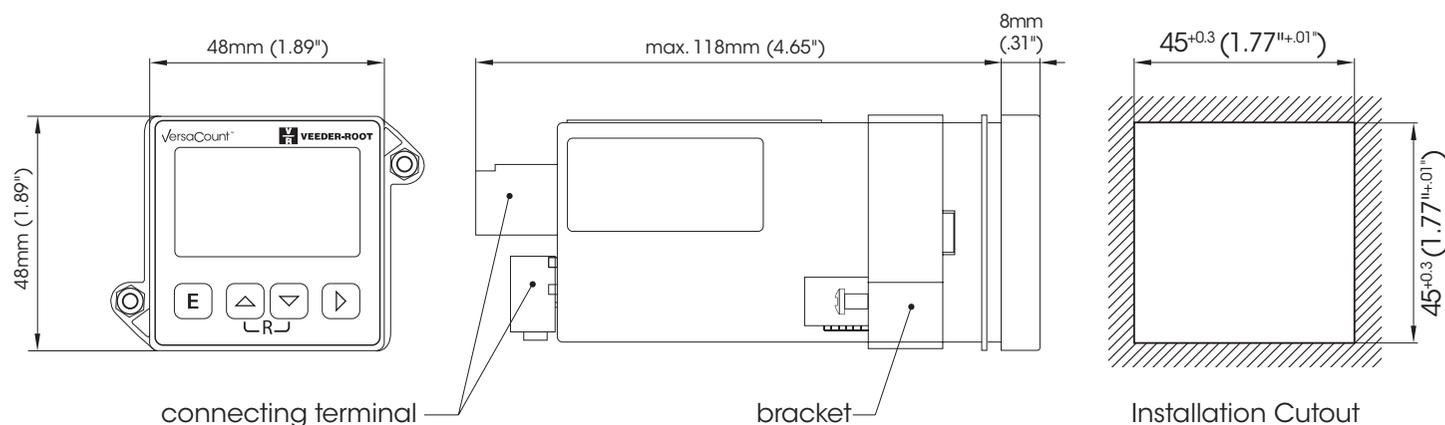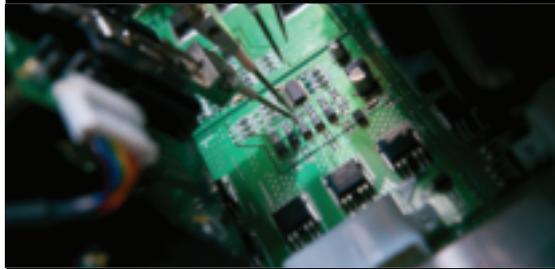
BATCH COUNTER	Mode	Batch counter with preset or 2nd totalizer with preset
SHIFT-COUNTER	Counter mode of operation	Differential counting add/sub, totalizing add/add
TACHOMETER	Measuring principle	Period (cycle) measurement (1/Tau)
	Time base	1/min or 1/s
	Min. frequency	1 Hz or 0.1 Hz
	Limit values	2 alarms with programmable startup suppression + 1 additional upper limit value on the application output
	Tachometer mode of operation	Unidirectional add oder sub; directional input Differential add / sub; totalizing add / add; Phase discriminator single, double or quadruple evaluation A / B or (A-B) / A %
	Application input / output	Output: Preset 0-out, Direction-out Input: additional counter input add / sub, Keylock, Hold, Teach in
	Overall tolerance	= Shown resolution + tolerance of timebase = 130 ppm
TIME COUNTER	Time base	Programmable in sec, min, h or hh:mm:ss
	Resolution	1; 0.1; 0.01; 0.001; 0.0001
	Function	Single-pulse or cumulative measurement
	Measuring principle	Pulse-width or cycle duration measurement Start Input A + Stop Input B; Start / Stop key
	Application input/output	Output: Preset 0-out Input: additional Run, Stop, Reset, Set, Keylock, Hold, Teach in
	Overall tolerance	= Shown resolution + tolerance of timebase = 130 ppm
TOLERANCE & CERTIFICATIONS	General design	EN 61 010-1 / IEC 61010-1
	Protection class	II; EN 61010-1 / IEC 61010-1
	Pollution degree	V 2, EN 50178
	EMC-immunity	EN 61326-1 industrial environment **
	EMC-emission	EN 61326-1 Class B **
	Ambient temperature	0° to 50°C (32° to 122°F) EN 60 068-2-1/2
	Storage temperature	-20° to +65°C (-4° to 149°F) EN 60 068-2-1/2
	Climate	40°C (104°F) / 93% rel hum. class 4K4H, EN 60 068-2-78 25 to 50°C (77° to 122°F) / 93% rel hum., cyclic, EN 60 068-2-38
	Protection class	IP 65 front side; EN 60529 / IP 20 terminals
	Vibration resistence	10 m/s² (32.8 ft/s²) (10 to 150 Hz); EN 60 068-2-6
	Shock resistence	100 m/s² (328 ft/s²) (18 ms); EN 60 068-2-27
	Chemical resistance	Front foil acc. to DIN 42 115-2
	Approvals	UL, CSA (pending), CE
	RoHS	Compliant
SPECIFICATIONS	Installation	Front panel installation with tenter (frame), front panel thickness max. 11 mm (0.433")
	Front panel cut out	45 mm (1.77") x 45 mm (1.77") + 0.3 mm (0.012")

** For cable length > 30 m (98 ft), for connection to a DC-supply-network and input level TTL an additional protection circuit is necessary.