Rubidium “V” series modules

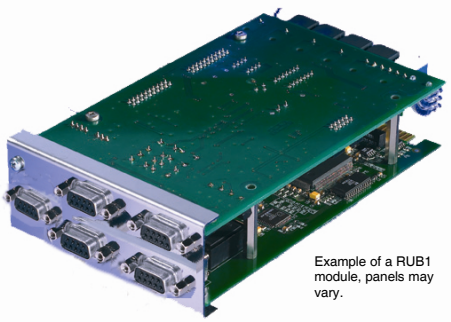
Signal distribution and amplification modules

VD VI VL VU VM

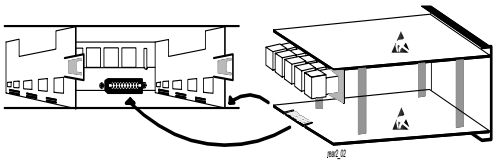
RUBIDIUM distribution units feature:*

Standard available functions	VD	VI	VL	VU	VM
Distributer and amplifier (one input) • 1:4 LTC (EBU/SMPTE) • 1:4 Serial signals RS232/422/485 • 1:4 Seconds impulse telegram signals	√ √ √				
Distributer, amplifier and demultiplexer 1:4, 2:4 LTC (EBU/SMPTE)			√		
Distributer, amplifier and demultiplexer • 1:4, 2:4 LTC to analog clock signals				√	
Distributer and amplifier (one input) • 1:6 10 MHz (continuous wave)					√
Distributer and amplifier (one input) • 1:6 LTC (EBU/SMPTE) or IRIG-B		√			
Redundant fail-proof output signals		√			√

*Must be used in conjunction with a housing and power supply, please see RUBIDIUM overview leaflet for more information.



Example of a RUB1 module, panels may vary.



“V” series module features… at a glance:

VD

Distributes and amplifies 1:4 RUB GT signals
-one LTC input to four LTC (EBU/SMPTE) outputs
-one RUB GT input to four RS232/422/485 signals outputs
-one RUB GT input to four analog clock signals

VI

Distributes and amplifies
-one input to six LTC(EBU/SMPTE) or IRIG-B outputs
-output monitoring with a redundant change-over switcher

VL

Distributes and amplifies:
-two LTC inputs to four LTC (EBU/SMPTE) outputs
-four different time zones possible
(demultiplexed from Alpermann+Velte’s MTD A,B,C,D,E,F)

VU

Distributes and amplifies:
- two LTC inputs to four analog clock signal outputs
-four different time zones possible
(demultiplexed from Alpermann+Velte’s MTD A,B,C,D,E,F)

VM

Distributes and amplifies
-one 10MHz continuous wave input (e.g. from RUB GPS 10MHz) to six 10 MHz continuous wave outputs
-output monitoring with programmable redundant changeover switcher

The Alpermann+Velte Rubidium “V” series modules are signal distribution, demultiplexer and amplification modules for all outgoing signals available from our Rubidium generator modules. The following signals can be distributed with our RUB “V” series: LTC, IRIG-B, 10 MHz continuous wave, analog clock signals and RS 232/422/485 serial data strings. (please view above chart for applicable module/signal)

Die „V“-Module der Rubidium-Serie arbeiten als Signal-Verstärkung, -Verteilung und -Trennung für die Signal-Generatoren und haben Multiplexer- und Kreuzschienen-Funktionen. Je nach Modul können folgende Signale verstärkt werden: LTC, IRIG-B, 10 MHz Sinus, Analoguhr-Signale und RS232/422/485-Datensignale.

(continued on reverse)

This distributor and amplifier modules are designed to distribute incoming signals such as a “real time” over long distances and to various signal receivers. Selected modules also have an analog clock driver and can power and control up to 180 of our analog clocks, in up to four different world time zones.
The “VI” and “VM” series modules also have an error monitor function for signal failure(s), enabling a completely redundant outgoing signals. These signals can be monitored with our RUB IE module via SNMP or an internet browser. The VL and VU distribution modules are also demultiplexers for all the time signals available from our GT Time Code Generator. Each output is selectable from available time zones or A,B,C,D;E;F “MTD” times.
Please view the product or service section of our website for more detailed information about each of the individual modules.
www.alpermann-velte.com

Die Verstärker und Verteiler distribuieren einkommende Signale, um die Signale über lange Distanz und an viele anzuschließende Empfänger zu verteilen. Die Analoguhr-Treiber können z.B. über mehrere hundert Meter Leitungsverbindungen mit bis zu 180 Uhren treiben.
VI- und VM-Module haben zusätzlich eine Signalüberwachung an jedem Ausgang und können jeden Ausgang redundant betreiben. Per Ethernetmodul (IE) können SNMP- und Browser-Überwachung der Signale erfolgen.
VL- und VU-Module sind Demultiplexer für die Zeitsignale des Generators. Jeder Ausgang kann eine selektierte Zeitzone oder MTD-Zeit ausgeben.

Weitere Informationen finden Sie auf unserer Website.
www.alpermann-velte.com

Specifications:

RUBIDIUM V modules	**VD**	**VI**	**VL**	**VU**	**VM**
Specifications					
Operating voltage	15 – 30 VDC (1.2 W consumption)				
Dimensions rear panel	RUB1 “1RU” version 103x44mm / 4,06x1,73 inches / RUB3 “3RU” version - 8HP, 3RU				
Dimensions circuit board	(WxL): 100x160mm / 3.94x6,30 inches				
Weight	0.2kg				
Connections:					
Input	1x DSUB9M	1x RJ45	2x RJ45	2x RJ45	1x BNC
Outputs	4x DSUB9F	1x DSUB25F	4x RJ45	4x RJ45	6x BNC
LTC input signals					
Signal	Balanced signals				
Input impedance	18 kΩ				
Input signal level	100 mV_{p-p} - 5 V_{p-p}				
LTC distribution amplifier output					
Signal	Balanced signals	Balanced signals	Balanced signals		
Output gain	1 ± 1%	1 ± 1%	Adjustable 100 mV_{p-p} – 4,9 V_{p-p}		
IRIG-B distribution amplifier output					
Format		IRIG-B123 amplitude modulated 1KHz frequency			
Other signals					
RS 485	input/output balanced signals				
GPI’s		7 failure signals	4 configurable I/O’s	4 configurable I/O’s	7 failure signals
Extra functions					
Configurable / programmable	No	yes	yes	yes	yes
SNMP compatible	No	yes	yes	yes	yes
Flash memory for easy online updates	No	yes	yes	yes	yes
Hot swapping compatible	yes	yes	yes	yes	yes

We reserve the right to modify specifications without notice.

Ordering information: RUB “V” series

Product ordering ID	**Module name**	**Functional description**
Rub1 VD	Distribution unit for H1 housing	LTC, RS232/422/485 and analog clock signal distributor and amplifier
Rub1 VI	Distribution unit for H1 housing	LTC, IRIG B signal distributor and amplifier (redundant signals)
Rub1 VL	Distribution unit for H1 housing	LTC (SMPTE/EBU) signal distributor and amplifier (four time zones max.)
Rub1 VU	Distribution unit for H1 housing	Analog clock signal distributor and amplifier (four time zones max.)
Rub1 VM	Distribution unit for H1 housing	10 MHz signal distributor and amplifier (redundant signals)

*Must be used in conjunction with a housing and power supply, please see RUBIDIUM overview leaflet for more information.