VSIM-2-HF
VSIM-2-EN

QUICK GUIDE VOLUME-SIMULATOR

The model **VSIM-2** Volume Simulator is the newest design digital Li-Ion accu-powered hand-held/portable device for the generating of Low Frequency metering counting pulses to modems, Electronic Volume Correctors (EVC's) and other devices. The device is available in two variants: **VSIM-2-HF**, having extra a High Frequency (HF) output and **VSIM-2-EN**, this model instead can READ a gasmeter having an ENCODER output, by displaying the "a" and the "b" telegram. Also a fixed format WRITE function is selectable for sending to a modem-logger or other device

Manufacturer:	Bosma-Controls B.V. / Edtree Engineering, The Netherlands
Housing:	ABS desktop box 156x114x79mm, IP44
Weight:	+/- 430 grams
Powersupply:	Build-in 3.7 DC Li-Ion 18650 3600mAh with protected circuit, 0.08mA
Powercharge connection:	Both Micro USB and a Jack Socket-female for power & charge (+/- 4-6 hours for full load)
Battery life:	+/- 30 hours at an output frequency of 1 Hz (**auto-power-off** after 30 minutes no activity)
Operating temperature:	5-40 °C
Connections (type):	Both DIN6 socket male & DIN6 socket female (all 6 pins are parallel connected), 2mm female connectors (Banana type)
Inputs:	Female 2mm Banana connectors available for: incoming **LF pulse** (IC-counter on display), incoming **Fault or Error pulse** (Red LED blinks) & for **ENCODER** (only VSIM-2-EN). ENCODER-input also via both DIN6 connectors on pin 1(+) and 2(-)
Outputs:	**LF pulse** (reed relay) on both female and male DIN6 connector, pins **selectable HF pulse** opto-coupler output on both female and male DIN6 connector pin 3(-) and pin 6(+), HF only available on model VSIM-2-HF **LF pulse** output available on 2mm female-plug output, only when LF is selected on pin 1-2 **ENCODER** "a" and "b" telegram (ENCODER only available on model VSIM-2-EN)
Pulse settings	Selectable 10, 100, 300, 1000 and "continuously" <=99999999 pulses
Output frequency LF:	Selectable <0.2Hz, 0.5Hz, 1.0Hz, and 3 Hz
Output frequency HF:	Selectable between 3Hz and 5000Hz, < +/- 0.01% F.S. (HF only available on VSIM-2-HF)

The VSIM-2-HF and VSIM-2-EN units are NOT ATEX approved

Quick Guide Volume Simulator Model VSIM-2-HF and VSIM-2-EN

VSIM-2-HF

MALE

FEMALE

Error/Fault contact-input activates LED on front

Both Male & Female DIN6 connector for pulses

Input-Counter incoming pulses

Power "on"

ERROR/FAULT CONTACT — RESET GND — INPUT COUNTER

Charge 1) USB/Micro-USB cable

LF pulse out (when **SELECT** on pin 1-2)

HF on DIN-6 3(-) 6(+)

INPUT-COUNTER

IC:0
CONTINU
3.0Hz
LFon 1_2

FAULT ERROR LED

REED SWITCH PULSE OUT

AD9833 FREQ. GEN. OLED DISPLAY

Charge 2) 12V-DC Adapter with Jackpl.

PULSES select: 10, 100, 300, 1000 or "continue"

FREQ. select: <0.2; 0.5; 0.8; 1.0; 2.0; 3.0Hz

VOLUME SIMULATOR FOR EVC'S
Model: VSIM-2 HF

PULSE-GEN LF HF
10-100-300-1000-CONT PULSES
<0.2-0.5-0.8-1.0-3.0Hz-"HF"

CE

Q.C PASSED

LF on pin:

FREQ.   PULSES   SELECTOR
                   HF out (turn right)

PULSE LED   STATUS LED   BATT LOW LED

START   STOP/Power Off   RESET

PROTECTED LI-ION RECHARGEABLE BATTERY 18650 INSIDE

SELECT output on pins: 1-2; 1-4; 4-5; 2-5 or 3-6

Blue LED in **RESET** button = batt.low & or charging

Model VSIM-2-HF ONLY:
High Frequency Output available on DIN6 connector pin 3(-) and 6(+):
Rotate SELECTOR complete to right
PULSES rotate fully to right = HF "Fixed Values", with **FREQ.** select: 3-100-500-750-1000 -1250 etc. up to **5000Hz**
PULSES rotate middle area = HF "Free Values, rough setting with **PULSES**, fine setting with **FREQ.** up to **2500HZ**

Button control examples:
STOP: Power off
START – STOP: Start pulses-Stop pulses
START-STOP-START: Start pulses-Stop pulses-Continue pulses
START-STOP-RESET: Start pulses-Stop pulses-Reset pulses
START-STOP-STOP: Start pulses-Stop pulses-Power off
(STOP-RESET: Resets input counter "IC")

Quick Guide Volume Simulator Model VSIM-2-HF and VSIM-2-EN

VSIM-2-EN

MALE   FEMALE

Error/Fault contact-input activates LED on front

Both Male & Female DIN6 connector for pulses and ENCODER

Input-Counter incoming pulses

ERROR/FAULT CONTACT — RESET GND — INPUT COUNTER

Power "on"

Charge 2) USB/Micro-USB cable

ENCODER READ/WRITE

LF pulse out (when SELECT on pin 1-2)

EN(+) REED SWITCH PULSE OUT EN(-)

INPUT-COUNTER   FAULT ERROR LED

IC:0
300-Pls
2.0Hz
LFon 1-2

ENCODER R/W
OLED DISPLAY

Charge 2) 12V-DC Adapter with Jackpl.

PULSES select: 10, 100, 300, 1000 or "continue"

FREQ. select: <0.2; 0.5; 0.8; 1.0; 2.0; 3.0Hz

VOLUME SIMULATOR FOR EVC'S
Model: VSIM-2 EN
PULSE-GEN LF EN-W/R
10-100-300-1000-CONT PULSES
<0.2-0.5-0.8-1.0-3.0Hz
Q.C. PASSED
BOSMA-CONTROLS
LF on pin:

FREQ.   PULSES   SELECTOR
ENCODER W/R

PULSE LED   STATUS LED   BATT LOW LED

START   STOP/Power Off   RESET

PROTECTED LI-ION RECHARGEABLE BATTERY 18650 INSIDE

SELECT output on pins: 1-2; 1-4; 4-5; 2-5 or 3-6

Blue LED in RESET button = batt.low or charging is active

Model VSIM-2-EN ONLY:
ENCODER READ/WRITE available on DIN6 connector pin 1(+) and 2(-):
Rotate SELECTOR complete to right =
ENCODER data are **READ** (sound signal), see example left
SELECTOR rotate slightly back = **WRITE** (=fixed dummy data, see example right)

GMTR=807167.92m3
--READ-ENCODER--
Mf-Code=ELS AC=0
Mr-Type=G65
--S/N---75157575
Pr-year=15
SoftVer=V5.4

GMTR=2345678.9m3
--WRITE-ENCODER-
Mf-Code=BOS AC=0
Mr-Type=G93
--S/N---12485432
Pr-year=2099
SoftVer=9999

Button control examples:
STOP: Power off
START – STOP: Start pulses-Stop pulses
START-STOP-START: Start pulses-Stop pulses-Continue pulses
START-STOP-RESET: Start pulses-Stop pulses-Reset pulses
START-STOP-STOP: Start pulses-Stop pulses-Power off
(STOP-RESET: Resets input counter "IC")