VivoMetrics® LifeShirt System Trace Parameters

Basic Parameters

RIP Waveform Traces

Vt	Tidal Volume
RC	Rib Cage Excursions
AB	Abdomen Excursions
TVI	Tidal Volume Instability

RIP Derivative and 2nd Derivative of Tidal Volume

dVt	Derivative of Tidal Volume
dRC	Derivative of RC Excursions
dAB	Derivative of AB Excursions
d2Vt	Second Derivative of Tidal Volume
d2RC	Second Derivative of RC Excursions
d2AB	Second Derivative or AB Excursions

RIP Volume Measures

ViVol	Inspiratory Tidal Volume
VeVol	Expiratory Tidal Volume
Vent	Minute Ventilation
qDEEL	Change in End-Expiratory Lung Volume
RBVol	Running Baseline Tidal Volume
%SBVol	Sigh Volume

RIP Timing Measures

Br/M	Respiratory Rate
Ti	Inspiratory Time
Te	Expiratory Time
Tt	Total Breath Time
Ti/Tt	Fractional Inspiratory Time
Ti/Te	Inspiratory/Expiratory Time Ratio
PifTTi	Time To Reach Peak Inspiratory Flow
PefTTe	Time To Reach Peak Expiratory Flow
F/Vt	Rapid Shallow Breathing Index

RIP Derivative Measures

Vt/Ti	Mean Inspiratory Flow
PifVt	Peak Inspiratory Flow
PifRC	Peak Inspiratory Flow of RC
PifAB	Peak Inspiratory Flow of AB
PefVt	Peak Expiratory Flow
VePif	Ventilation/Peak Inspiratory Flow Ratio
PifMif	Peak Inspiratory/Mean Inspiratory Flow
PefMef	Peak Expiratory/Mean Expiratory Flow

RIP Acceleration Measures

PiaVt	Peak Inspiratory Acceleration
PiaRC	Peak Inspiratory Acceleration of RC
PiaAB	Peak Inspiratory Acceleration of AB
VePia	Ventilation/Peak Inspiratory Acceleration

RIP Thoracoabdominal Coordination Measures

%RC	%RC/Tidal Volume Ratio
LBI	Labored Breathing Index
PhRIB	Phase Relation During Inspiration
PhREB	Phase Relation During Expiration
PhRTB	Phase Relation of Entire Breath
PhAng	Phase Angle
ePhRL	Effort Phase Relation
eBPRL	Baseline Effort Phase Relation

RIP = Respiratory Inductive Plethysmography

RIP Apnea-Hypopnea Detection and Classification

BAp	Apnea Classification
BHyp	Hypopnea Detection
AHI	Apnea Hypopnea Index

RIP Mechanics Measures

RBPef	Running Baseline Peak Expiratory Flow
%CBPef	% Cough Peak Expiratory Flow

RIP Periodic Breathing & Cheyne-Stokes Respiration

PerCS	Amplitude of CSR and Periodic Breathing
PerCT	Cycle Length of CSR and Periodic Breathing

ECG Traces/Measures

ECG	Electrocardiogram
RW	R-Wave Pulse
RWA	R-Wave Pulse for Artifact Marking
HR	Heart Rate
RR	RR Interval

Accelerometer Waveform Traces/Measures

ACC	Accelerometer Signal
AccP	Accelerometer Posture Indicator
AccM	Acclerometer Motion Indicator
ACT	Activity Level

AUXILIARY Parameters

Pulse Oximetry Waveform Traces/Measures

SaO_2	Arterial Oxygen Saturation
OxiP	Arterial Pulse Waveform
PR	Pulse Rate

EEG Waveform Traces/Measures

EEG	Electroencephalogram
EEGf	Filtered Electroencephalogram
EOG	Electroculargram
EOGf	Filtered Electroculargram
EMG	Electromyogram
EMGF	Filtered Electromyorgram
EBSWake	Probability of Wake
EGSSleep	Probability of Deep Sleep
EBSREM	Probability of REM or Light Sleep
RnK	Pseudo R & K Hynogram
ARS	MicroArousals

Capnophaphy Waveform Traces

CO_2	End Tidal CO_2

Temperature Waveform Traces

TEMP	Temperature
TEMPa	Temperature (from standalone device)

Leg Accelerometer Waveform Traces/Measures

LEG1	Leg Accelerometer 1
LEG2	Leg Accelerometer 2
PLM1	Periodic Leg Movement 1
PLM2	Periodic Leg Movement 2

Remote Switch Waveform Traces

SWa	Remote Switch A
SWb	Remote Switch B

Sound Waveform Traces/Measures

MIC	Microphone
SE	Sound Envelope
EVT	Event Detector and Duration
CGH	Cough Detector
HFB	High Frequency Band of vt
LFB	Low Frequency Band of vt
FAB	High Frequency Band of AB
PITCH	Sound Pitch
PITCHm	Mean 20sec Sound Pitch

VivoMetrics

LifeShirt System Trend Parameters

RIP Volume Trends

MVol	Median Tidal volume
MVent	Median Minute Ventilation
MqDEEL	Median Change in End-Expiratory Lung Volume
MRBVol	Median Running Baseline of Tidal Volume
Sigh15	Number of Sighs per 15 Minutes
pSigh	Percent Sighs of Total Breaths Every 15 Minutes
MTVI	Median Tidal Volume Instability

RIP Timing Trends

MBr/M	Median Breath Rate
MTt	Median Total Breath Time
MTi/Tt	Median Fractional Inspiratory Time
MF/Vt	Median Rapid Shallow Breathing Index

RIP Derivative Trends

MPifVt	Median Peak Inspiratory Flow
MVePif	Median Ventilation/Peak Inspiratory Flow Ratio
MPifMif	Median Peak Inspiratory Flow/Mean Inspiratory Flow
MPefMef	Median Peak Expiratory Flow/Mean Expiratory Flow

RIP Thoracoabdominal Coordination Trends

M%RC	Median Percent Rib Contribution to Tidal Volume
MPhRTB	Median Phase Relation of Total Breath

RIP Mechanics Trends

Cough15	Number of Coughs per 15 Minutes
pCough	Percent Coughs of Total Breaths per 15 Minutes

RIP Apnea Classification Counts

BApC	Number of Central Apneas per Minute
BApM	Number of Mixed Apneas per Minute
BApO	Number of Obstructive Apneas per Minute
BHypC	Number of Hypopneas per Minute
BAHI	Number of Apneas & Hypopneas per Hour

RIP Cheyne-Stokes Respiration & Periodic Breathing

XPerCS	Strength of Oscillatory Oscillations in Cheyne-Stokes & Periodic Breathing
XPerCT	Cycle Time of Cheyne-Stokes & Periodic Breathing

ECG Heart Rate Trends

MHR	Median Heart Rate
MRR	Median RR Interval

LQR = Lower Quartile Range
UQR = Upper Quartile Range

Accelerometer Trends

MAccP	Median Accelerometer Posture Indicator
MAccM	Median Accelerometer Motion Indicator
mAccP	Mean Accelerometer Posture Indicator
mAccM	Mean Accelerometer Motion Indicator

Pulse Oximetry Trends

$MSaO_2$	Median Arterial Oxygen Saturation
MPR	Median Pulse Rate

Quartile Ranges for:

LQVol	LQR of Tidal volume
UQVol	UQR of Tidal volume
LQVent	LQR of Minute Ventilation
UQVent	UQR of Minute Ventilation
LQqDEEL	LQR of Change in End-Expiratory Lung Volume
UQqDEEL	UQR of Change in End-Expiratory Lung Volume
LQRBVol	LQR of Running Baseline of Tidal Volume
UQRBVol	UQR of Running Baseline of Tidal Volume
LQBr/M	LQR of Breath Rate
UQBr/M	UQR of Breath Rate
LQTi/Tt	LQR of Fractional Inspiratory Time
UQTi/Tt	UQR of Fractional Inspiratory Time
LQF/Vt	LQR of Rapid Shallow Breathing Index
UQF/Vt	UQR of Rapid Shallow Breathing Index
LQPifVt	LQR of Peak Inspiratory Flow
UQPifVt	UQR of Peak Inspiratory Flow
LQVePif	LQR of Ventilation/Peak Insp. Flow Ratio
UQVePif	UQR of Ventilation/Peak Insp. Flow Ratio
LQPifMif	LQR of Peak Insp.Flow/Mean Insp. Flow
UQPifMif	UQR of Peak Insp. Flow/Mean Insp. Flow
LQPefMef	LQPefMef LQR of Peak Exp. Flow/Mean Exp. Flow
UQPefMEf	UQR of Peak Exp. Flow/Mean Exp.Flow
LQ%RC	LQR of %Rib Contribution to Tidal Vol.
UQ%RC	UQR of % Rib Contribution to Tidal Volume
LQPhRTB	LQR of Phase Relation of Total Breath
UQPhRTB	UQR of Phase Relation of Total Breath
LQHR	LQR of Heart Rate
UQHR	UQR of Heart Rate
LQRR	LQR of RR Interval
UQRR	UQR of RR Interval
LQAccP	LQR of Accelerometer Posture
UQAccP	UQR of Accelerometer Posture
LQAccM	LQR of Accelerometer Motion
UQAccM	UQR of Accelerometer Motion
$LQSaO_2$	LQR of Arterial Oxygen Saturation
$UQSaO_2$	UQR of Arterial Oxygen Saturation
LQPR	LQR of Pulse Rate
UQPR	UQR of Pulse Rate

VMLA-028-04

Contact VivoMetrics, Inc. at 805.667.2225 or sales@vivometrics.com

09:00 19:45
09:15 20:00
09:30 20:15
09:45 20:30
10:00 20:45
10:15 21:00
10:30 21:15
10:45 21:30
11:00 22:45
11:15 23:00
11:30 23:15
11:45 23:30
12:00 23:45
12:15 24:00
12:30 01:00
12:45 01:15
13:00 01:30
13:15 01:45
13:30 02:00
13:45 02:15
14:00 02:30
14:15 02:45
14:30 03:00
14:45 03:15
15:00 03:30
15:15 03:45
15:30 04:00
15:45 04:15
16:00 04:30
16:15 04:45
16:30 05:00
16:45 05:15
17:00 05:30
17:15 05:45
17:30 06:00
17:45 06:15
18:00 06:30
18:15 06:45
18:30 07:00
18:45 07:15
19:00 07:30
19:15 07:45
19:30 08:00