

# MetaSoft® Parameter

## das Herzstück der CORTEX-Systeme

Die Basis aller CORTEX-Systeme ist die Software MetaSoft®. Sie erfüllt perfekt die Anforderungen an praxisnahe, leistungsstarke Spiroergometrie - schnell erlernbar, intuitiv zu bedienen. Individuelle Nutzerprofile erleichtern den Arbeitsablauf.



### SYMBOL BEZEICHNUNG

V'(t)	Flowverlauf
V(t)	Volumenverlauf
VT (ATPS)	Expirationsvolumen (ATPS)
VT (BTPS)	Expirationsvolumen (BTPS)
VT (STPD)	Expirationsvolumen (STPD)
AF	Atemfrequenz
V'E (ATPS)	Atemminutenvolumen (ATPS)
V'E (BTPS)	Atemminutenvolumen (BTPS)
V'E (STPD)	Atemminutenvolumen (STPD)
V'max (ATPS)	Expiratorischer Peakflow (ATPS)
V'max (BTPS)	Expiratorischer Peakflow (BTPS)
V'max (STPD)	Expiratorischer Peakflow (STPD)
tE	Expirationsdauer
tI	Inspirationsdauer
V'E/MVV	Atemreserve - Index
%AR	Atemreserve %
AR	Atemreserve
VD (est)	Physiologischer Totraum (geschätzt)
VD/VT (est)	Physiologische Totraumrate (geschätzt)
VD (BGA)	Physiologischer Totraum (BGA)
VD/VT (BGA)	Physiologische Totraumrate (BGA)
FO <sub>2</sub> (t)	O <sub>2</sub> -Konzentrationsverlauf
FCO <sub>2</sub> (t)	CO <sub>2</sub> -Konzentrationsverlauf
FEetO <sub>2</sub>	Endexpiratorische O <sub>2</sub> -Konzentration
FEetCO <sub>2</sub>	Endexpiratorische CO <sub>2</sub> -Konzentration
PetO <sub>2</sub>	Endexpiratorische O <sub>2</sub> -Partialdruck
PetCO <sub>2</sub>	Endexpiratorische CO <sub>2</sub> -Partialdruck
FletO <sub>2</sub>	Endinspiratorische O <sub>2</sub> -Konzentration
FletCO <sub>2</sub>	Endinspiratorische CO <sub>2</sub> -Konzentration
FEO <sub>2</sub>	Gemischt-expiratorische O <sub>2</sub> -Konzentration
FECO <sub>2</sub>	Gemischt-expiratorische CO <sub>2</sub> -Konzentration
PEO <sub>2</sub>	Gemischt-expiratorischer O <sub>2</sub> -Partialdruck
PECO <sub>2</sub>	Gemischt-expiratorischer CO <sub>2</sub> -Partialdruck
FIO <sub>2</sub>	Inspiratorische O <sub>2</sub> -Konzentration
FICO <sub>2</sub>	Inspiratorische CO <sub>2</sub> -Konzentration

### SYMBOL BEZEICHNUNG

V'O <sub>2</sub> (BTPS)	Sauerstoffaufnahme (BTPS)
V'CO <sub>2</sub> (BTPS)	Kohlendioxidabgabe (BTPS)
V'O <sub>2</sub> (STPD)	Sauerstoffaufnahme (STPD)
V'CO <sub>2</sub> (STPD)	Kohlendioxidabgabe (STPD)
RER	Gasaustauschrate
V'O <sub>2</sub> /kg	Relative Sauerstoffaufnahme
V'O <sub>2</sub> /kg_Lean	Relative Sauerstoffaufnahme zu Lean Body Weight
V'CO <sub>2</sub> /kg	Relative Kohlendioxidabgabe
V'CO <sub>2</sub> /kg_Lean	Relative Kohlendioxidabgabe zu Lean Body Weight
METS	Metabolisches Äquivalent
V'E/VO <sub>2</sub>	Atemäquivalent O <sub>2</sub>
V'E/VCO <sub>2</sub>	Atemäquivalent CO <sub>2</sub>
V'O <sub>2</sub> /P	Aerobe Kapazität
%MET-R	Metabolische Reserve (Nutzungsrate %)
PaCO <sub>2</sub> (est)	Arterieller CO <sub>2</sub> -Partialdruck (geschätzt)
W	Energieverbrauch
EU	Energieumsatz
EU/kg	Energieumsatz zu Gewicht
EU/kg_Lean	Energieumsatz zu Lean Body Weight
EU/KO	Energieumsatz zu Körperoberfläche
CHO	Kohlenhydratumsatz
PRO	Eiweißumsatz
FAT	Fettumsatz
SU	Substratumsatz
SA	Substratabbau
%CHO	Kohlenhydratumsatz %
%PRO	Eiweißumsatz %
%FAT	Fettumsatz %
La	Laktat
PaO <sub>2</sub> (BGA)	Arterieller Sauerstoffpartialdruck (BGA)
PaCO <sub>2</sub> (BGA)	Arterieller Kohlendioxidpartialdruck (BGA)
BE (BGA)	Basenüberschuss (BGA)
HCO <sub>3</sub> (BGA)	Bicarbonat (BGA)
pH (BGA)	pH-Wert (BGA)
H+ (BGA)	H+ Ionen-Konzentration (BGA)

### SYMBOL BEZEICHNUNG

PAO <sub>2</sub> (BGA)	Alveolarer Sauerstoffpartialdruck (BGA)
P(A-a)O <sub>2</sub> (BGA)	Alveolar-arterielle Sauerstoffpartialdruckdifferenz (BGA)
P(a-et)CO <sub>2</sub> (BGA)	Arteriell-end-tidal Kohlendioxidpartialdruckdifferenz (BGA)
VD (BGA)	Physiologischer Totraum (BGA)
VD/VT (BGA)	Physiologische Totraumrate (BGA)
HF	Herzfrequenz
V'O <sub>2</sub> /HF	Sauerstoffpuls
Q'	Herzzeitvolumen
SV	Herzschlagvolumen
BPs	Systolischer Blutdruck
BPd	Diastolischer Blutdruck
%HF-R	Herzfrequenzreserve (Nutzrate %)
SpO <sub>2</sub>	Sauerstoffsättigung
P	Leistung
P/kg	Leistung zu Gewicht
P/kg_Lean	Leistung zu Lean Body Weight
v (LB)	Geschwindigkeit (Laufband)
N (LB)	Neigung (Laufband)
UpM	Trittfrequenz
s (TB)	Strecke (Laufband)
v (GPS)	Geschwindigkeit (GPS)
s (GPS)	Strecke (GPS)
EFF	Bruttowirkungsgrad
t	Messzeit
PB	Luftdruck
Ta	Umgebungs-Temperatur
Tb	Atem-Temperatur
A1	Analog 1
Angle	Winkel

# MetaSoft<sup>®</sup>

## The core of CORTEX-systems

MetaSoft can be learned rapidly and is intuitive in its operation. Individual user profiles facilitate the work process and modular software add-ons increase the flexibility of the system.



# Parameters

### SYMBOL

### NOMINATION

V'(t)	Flow Tracing
V(t)	Volume Tracing
VT (ATPS)	Tidal Volume (ATPS)
VT (BTPS)	Tidal Volume (BTPS)
VT (STPD)	Tidal Volume (STPD)
BF	Breathing Frequency
V'E (ATPS)	Minute Ventilation (ATPS)
V'E (BTPS)	Minute Ventilation (BTPS)
V'E (STPD)	Minute Ventilation (STPD)
V'max (ATPS)	Expiratory Peakflow (ATPS)
V'max (BTPS)	Expiratory Peakflow (BTPS)
V'max (STPD)	Expiratory Peakflow (STPD)
tE	Time of Expiration
tI	Time of Inspiration
V'E/MVV	Breathing Reserve - Index
%BR	Breathing Reserve %
BR	Breathing Reserve
VD (est)	Physiologic Dead Space (estimated)
VD/VT (est)	Physiologic Dead Space / Tidal Volume Ratio (estimated)
VD (ABG)	Physiological Dead Space (ABG)
VD/VT (ABG)	Physiologic Dead Space / Tidal Volume Ratio (ABG)
FO <sub>2</sub> (t)	O <sub>2</sub> -Concentration Tracing
FCO <sub>2</sub> (t)	CO <sub>2</sub> -Concentration Tracing
FEetO <sub>2</sub>	Expiratory End-tidal O <sub>2</sub> -Concentration
FEetCO <sub>2</sub>	Expiratory End-tidal CO <sub>2</sub> -Concentration
PetO <sub>2</sub>	Expiratory End-tidal O <sub>2</sub> -Partial Pressure
PetCO <sub>2</sub>	Expiratory End-tidal CO <sub>2</sub> -Partial Pressure
FletO <sub>2</sub>	Inspiratory End-tidal O <sub>2</sub> -Concentration
FletCO <sub>2</sub>	Inspiratory End-tidal CO <sub>2</sub> -Concentration
FEO <sub>2</sub>	Mixed Expired O <sub>2</sub> -Concentration
FECO <sub>2</sub>	Mixed Expired CO <sub>2</sub> -Concentration
PEO <sub>2</sub>	Mixed Expired O <sub>2</sub> -Partial Pressure
PECO <sub>2</sub>	Mixed Expired CO <sub>2</sub> -Partial Pressure
FIO <sub>2</sub>	Inspiratory O <sub>2</sub> -Concentration
FICO <sub>2</sub>	Inspiratory CO <sub>2</sub> -Concentration

### SYMBOL

### NOMINATION

V'O <sub>2</sub> (BTPS)	Oxygen Uptake (BTPS)
V'CO <sub>2</sub> (BTPS)	Carbon Dioxide Output (BTPS)
V'O <sub>2</sub> (STPD)	Oxygen Uptake (STPD)
V'CO <sub>2</sub> (STPD)	Carbon Dioxide Output (STPD)
RER	Respiratory Exchange Ratio
V'O <sub>2</sub> /kg	Relative Oxygen Uptake
V'O <sub>2</sub> /kg_Lean	Relative Oxygen Uptake to Lean Body Weight
V'CO <sub>2</sub> /kg	Relative Carbon Dioxide Output
V'CO <sub>2</sub> /kg_Lean	Relative Carbon Dioxide Output to Lean Body Weight
METS	Metabolic Equivalent
V'E/V O <sub>2</sub>	Ventilatory Equivalent for O <sub>2</sub>
V'E/V Co <sub>2</sub>	Ventilatory Equivalent for CO <sub>2</sub>
V'O <sub>2</sub> /WR	Aerobic Capacity
%MET-R	Metabolic Reserve (Usage Rate %)
PaCO <sub>2</sub> (est)	Arterial CO <sub>2</sub> -Partial Pressure (estimated)
W	Liberated Energy
EE	Energy Expenditure
EE/kg	Energy Expenditure to Body Weight
EE/kg_Lean	Energy Expenditure to Lean Body Weight
EE/BSA	Energy Expenditure to Body Surface Area
CHO	Carbohydrate Utilization Rate
PRO	Protein Utilization Rate
FAT	Fat Utilization Rate
TSU	Total Substrate Utilization Rate
gTSU	Total Substrate Utilization
%CHO	Carbohydrate Utilization %
%PRO	Protein Utilization %
%FAT	Fat Utilization %
La	Lactate
PaO <sub>2</sub> (ABG)	Arterial Oxygen Partial Pressure (ABG)
PaCO <sub>2</sub> (ABG)	Arterial Carbon Dioxide Partial Pressure (ABG)
BE (ABG)	Base Excess (ABG)
HCO <sub>3</sub> (ABG)	Bicarbonate (ABG)
pH (ABG)	pH-Value (ABG)
H+ (ABG)	H+ Ionen-Concentration (ABG)

### SYMBOL

### NOMINATION

PAO <sub>2</sub> (ABG)	Alveolar Oxygen Partial Pressure (ABG)
P(A-a)O <sub>2</sub> (ABG)	Alveolar Arterial P O <sub>2</sub> Difference (ABG)
P(a-et)CO <sub>2</sub> (ABG)	Arterial-End-Tidal P CO <sub>2</sub> Difference (ABG)
VD (ABG)	Physiologic Dead Space (ABG)
VD/VT (ABG)	Physiologic Dead Space / Tidal Volume Ratio (ABG)
HR	Heart Rate
V'O <sub>2</sub> /HR	Oxygen Puls
Q'	Cardiac Output
SV	Stroke Volume
BPs	Systolic Blood Pressure
BPd	Diastolic Blood Pressure
%HR-R	Heart Rate Reserve (Usage Rate %)
SpO <sub>2</sub>	Oxygen Saturation
WR	Work Rate
WR/kg	Work Rate / to Body Weight
WR/kg_Lean	Work Rate / to Lean Body Weight
v (TM)	Speed (Treadmill)
G (TM)	Grade (Treadmill)
RPM	Pedal Speed
s (TM)	Distance (Treadmill)
v (GPS)	Speed (GPS)
s (GPS)	Distance (GPS)
EFF	Gross Efficiency
t	Measurement time
PB	Barometric Pressure
Ta	Ambient Temperature
Tb	Breath Temperature
A1	Analog 1
Angle	Angle