Vista 120
Patient Monitoring Solution

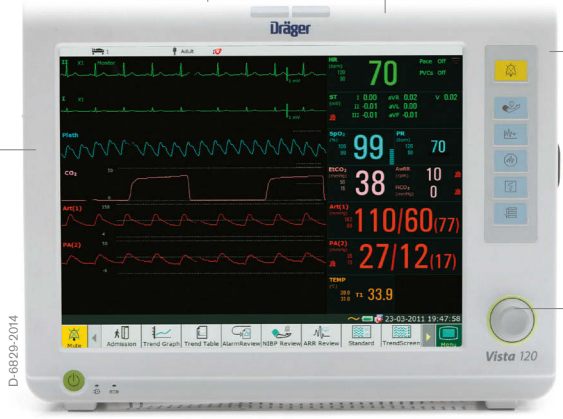
Hospitals around the world share a common challenge – to provide the best possible care in locations with growing populations, stricter financial regulations and caregivers that are increasingly overloaded. The Vista 120 was engineered to meet your clinical needs and stay within your budget, allowing you to deliver efficient and high-quality patient care.

380 mm (15") TFT touch screen
High resolution display (1,024 x 768) is bright and easy to read, even from a distance

Configurable layout
Lets you see the information you want, the way you want to see it

Enhanced trending
- Stores up to 150 hours of trend data for all parameters in tabular and graphic formats
- Stores up to 1,200 NIBP measurements and 200 alarm events
- 96 hours of full disclosure

Alarms
Alarm indicator and alarm pause/off



Device Connectivity
Enables true integrated workstation functionality

Core set of essential parameters
3/5 lead ECG, SpO_2, non-invasive blood pressure, respiration and dual temperature

Anesthesia support
Displays data from Scio Four gas measurement modules

Shortcut keys
Fast access to main functions

Benefits

Fully-integrated workstation solution

The Vista 120 supports adult, pediatric and neonatal patients in a variety of care environments – including Intensive Care, Operating Rooms, Emergency Departments and Neonatal Intensive Care. Medibus/Medibus-X connectivity enables the Vista 120 to be used with a complementary Dräger device, such as a ventilator or anesthesia machine allowing true integrated workstation functionality.

Essential monitoring capabilities, exceptional value

The Vista 120 displays up to 13 waveforms in an easy-to-configure layout and offers a core set of essential parameters including 3/5 lead ECG, non-invasive blood pressure, respiration and dual temperature. Advanced parameters including three invasive blood pressures, flexible mainstream and sidestream etCO_2 and cardiac output are also available.

Users can add external parameter modules including SCIO, CO_2 and BIS on model C and model C+ after initial device purchase.

Supports workflow efficiency

The Vista 120 is easy to learn and easy to use. You can configure the display to see the information you want to see, the way you want to see it. Fast access keys and simplified menus put the data you need right at your fingertips.

Monitor level of consciousness with flexible Bispectral Index (BIS) measurement

The Vista 120 offers BISx measurement to support clinicians with enhanced information as they monitor the depth of anesthesia. It allows the ability to better assess patient status and quickly respond to a changing condition.

Standard built-in gas interface

The Vista 120 provides seamless connectivity to Dräger Scio anesthetic gas measurement modules delivering precise inspiratory and expiratory values.

Health level-7 (HL7) international interface

The Vista 120 offers direct connection to the hospital information system (HIS) and/or an electronic medical record in HL7 protocol or a secure connection via the Vista 120 Gateway. The ability for easy access to both of these important information files help improve workflow efficiency and reduce human error.

Benefits

Dräger heritage of quality

Every life is unique. Protecting, supporting and saving lives is the foundation of our company philosophy. Our goal is to provide product and solutions that support acute care, help improve patient outcomes, reduce costs and achieve greater overall patient satisfaction.

Related Products

D-68804-2012

Vista 120 Central Monitoring System

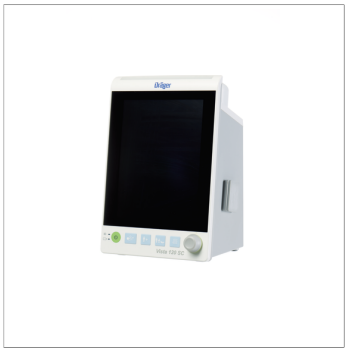
The easy-to-use Vista 120 Central Monitoring System (CMS) lets you centrally monitor the vital signs of up to 64 patients connected to Vista 120/Vista 120 S bedside monitors. This central surveillance streamlines workflow for clinicians, while significantly increasing patient safety.

D-13374-2016

Vista 120 S

Dräger understands the growing need for a patient monitor with built-in connectivity that provides essential monitoring at a good value. The Vista 120 S supports adult, pediatric and neonatal patients and can be used on its own or with a Dräger therapy device as a fully integrated workstation.

Related Products



D-11590-2019

Vista 120 SC

Reduce clinicians' workload with an easy-to-use and intuitive user interface. The Vista 120 SC is designed for spot check and continuous vital signs monitoring to complete Dräger's hospital-wide solution offerings.

Technical Data

Classification	
Protection class	Class I equipment and internal powered equipment
Degree of protection against electric shock	CF: ECG (RESP), TEMP, IBP, C.O. BF: SPO_2, AG, BIS
Defibrillation protection	Yes
Liquid ingress protection	IPX 1
Disinfection/sterilization method	Refer to chapter "Care and Cleaning" for details.
Mode of operation	Continuous
Compliant with standards	IEC 60601-1: 2005+A1:2012; IEC 60601-1-2: 2014; EN 60601-1: 2006+A1:2013; EN60601-1-2: 2015; IEC 60601-2-49: 2011

Supported Parameters	
ECG	
Lead mode	3-lead wire: I, II, III 5-lead wire: I, II, III, aVR, aVL, aVF, V
Waveform	3-lead wire: 1-channel waveform 5-lead wire: 2-channel waveform, max. seven waveforms
Lead naming style	AHA, IEC
Display sensitivity	1.25 mm/mV (x0.125), 2.5 mm/mV (x0.25), 5 mm/mV (x0.5), 10 mm/mV (x1), 20 mm/mV (x2), 40 mm/mV (x4), AUTO gain
Sweep	6.25, 12.5, 25, 50 mm/s
Bandwidth (-3dB)	Diagnosis: 0.05 to 150 Hz Monitor: 0.5 to 40 Hz Surgery: 1 to 20 Hz
CMRR (Common mode rejection ratio)	Diagnostic: > 95 dB Monitor: > 105 dB Surgery: > 105 dB
Notch	In diagnosis, monitor and surgery modes: 50 Hz/60 Hz (Notch filter can be turned on or off manually)
Differential input impendance	> 5 MΩ
Input signal range	±10 mVPP
Electrode offset potential tolerance	±800 mV
Auxiliary current (Leads off detection)	Active electrode: < 100 nA Reference electrode: < 900 nA
Recovery time after defibrillation	< 5 s (measured without electrodes as IEC60601-2-27:2011, Sect. 201.8.5.5.1 requires)
Leakage current of patient	< 10 μA
Scale signal	1 mV_{PP}, accuracy is ±5
System noise	< 30 μV_{PP}
ESU protection	Cut mode: 300 W Coagulation mode: 100 W Recovery time: ≤ 10 s
Electrosurgical interference suppression	Tested according to ANSI/AAMI EC13-2002: Sect. 5.2.9.14, Complied with ANSI/AAMI EC13:2002, Sect.4.2.9.14
Minimum input slew rate (lead II)	> 2.5 V/s
Baseline reset time	< 3 s

Pace Pulse	
Pulse indicator	Pulse is marked if the requirements of IEC 60601-2-27: 2011, Sect. 201.12.1.101.12 are met: Amplitude: ±2 mV to ±700 mV Width: 0.1 ms to 2.0 ms Ascending time: 10 μs to 100 μs

Technical Data

Pulse rejection	Pulse is rejected if the requirements of IEC 60601-2-27: 2011, Sect. 201.12.1.101.13 are met: Amplitude: ±2 mV to ±700 mV Width: 0.1 ms to 2.0 ms Ascending time: 10 µs to 100 µs

Heart Rate

Range	ADU: 15 to 300 bpm PED/NEO: 15 to 350 bpm
Accuracy	±1% or ±1 bpm, whichever is greater
Resolution	1 bpm
Sensibility	≥ 300 μV_{PP}

PVC

Range	ADU: 0 to 300 PVCs/min PED/NEO: 0 to 350 PVCs/min
Resolution	1 PVCs/min

ST Value

Range	-2.0 to +2.0 mV
Accuracy	-0.8 mV to +0.8 mV: ±0.02 mV or 10%, whichever is greater
Resolution	0.01 mV

HR Averaging Method

Method 1	Heart rate is computed by excluding the minimum and maximum values from the 12 most recent RR intervals and averaging the residual 10 RR intervals
Method 2	If each of three consecutive RR intervals is greater than 1,200 ms, then the four most recent RR intervals are averaged to compute the HR

Range of Sinus and SV Rhythm

Tachycardia	Adult: RR interval for 5 consecutive QRS complex ≤ 0.5 s. Pediatric/neonatal: RR interval for 5 consecutive QRS complex ≤ 0.375 s
Normal	Adult: 0.5 s < RR interval for 5 consecutive QRS complex < 1.5 s. Pediatric/neonatal: 0.375 s < RR interval for 5 consecutive QRS complex < 1 s
Bradycardia	Adult: RR interval for 5 consecutive QRS complex ≥ 1.5 s. Pediatric/neonatal: RR interval for 5 consecutive QRS complex ≥ 1 s

Range of Ventricular Rhythm

Ventricular tachycardia	The interval of 5 consecutive ventricular complexes is less than 600 ms
Ventricular rhythm	The interval of 5 consecutive ventricular complexes ranges from 600 ms to 1,000 ms
Ventricular bradycardia	The interval of 5 consecutive ventricular complexes is higher than 1,000 ms

Startup Time for Tachycardia

Ventricular tachycardia 1 mV 206 bpm	Gain 0.5: 10 s Gain 1.0: 10 s Gain 2.0: 10 s
Ventricular tachycardia 2 mV 195 bpm	Gain 0.5: 10 s Gain 1.0: 10 s Gain 2.0: 10 s

Technical Data

Response time of heart rate meter to change in HR	HR range: 80 to 120 bpm Range: within 11 s HR range: 80 to 40 bpm Range: within 11 s		
Tall T-wave rejection	Complied with IEC 60601-2-27: 2011, Sect. 201.12.1.101.17 minimum recommended 1.2 mV T-wave amplitude		
Accuracy of heart rate meter and response to irregular rhythm	Complied with IEC 60601-2-27: 2011, Sect. 201.7.9.2.9.101 b) 4). The HR value after 20 s: Ventricular bigeminy: 80 ±1 bpm Slow alternating ventricular bigeminy: 60 ±1 bpm Rapid alternating ventricular bigeminy: 120 ±1 bpm Bidirectional systoles: 91 ±1 bpm		
Time to alarm for heart rate alarm conditions	Asystole alarm: ≤ 10 s HR low alarm: ≤ 10 s HR high alarm: ≤ 10 s		
Arrhythmia analyses	Asystole	V-fib/V-tach	Couplet
	Run PVCs	PVC bigeminy	PVC trigeminy
	Vent rhythm	R on T	PVCs high
	Tachy	Brady	Missed beat
	Irr rhythm	Vent brady	Pacer not capture
	Pacer not pacing		

Respiration

Method	Impedance between RA-LL, RA-LA
Baseline impedance range	200 Ω to 2,500 Ω (with ECG cables of 1 KΩ resistance)
Measuring sensitivity	Within the baseline impedance range: 0.3 Ω
Waveform bandwidth	0.2 to 2.5 Hz (-3 dB)
RR measuring and alarm range:	Adult: 0 to 120 rpm Neo/Ped: 0 to 150 rpm
Resolution	1 rpm
Accuracy	Adult: 6 rpm to 120 rpm: ±2 rpm 0 rpm to 5 rpm: not specified Neo/Ped: 6 rpm to 150 rpm: ±2 rpm 0 rpm to 5 rpm: not specified
Gain selection	x0.25, x0.5, x1, x2, x3, x4, x5
Sweep	6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s
Apnea alarm time setup	10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s; default value is 20 s

NIBP

Method	Oscillometric
Mode	Manual, auto, continuous
Measuring interval in auto mode (unit: minutes)	1/2/2.5/3/4/5/10/15/30/60/90/120/180/240/360/480
Continuous	5 min, interval is 5 s
Measuring type	Systolic pressure, diastolic pressure, mean pressure
Alarm type	SYS, DIA, MAP

Measuring and Alarm Range

Adult mode	SYS: 40 to 270 mmHg DIA: 10 to 215 mmHg MAP: 20 to 235 mmHg
Pediatric mode	SYS: 40 to 230 mmHg DIA: 10 to 180 mmHg

Technical Data

	MAP: 20 to 195 mmHg
Neonatal mode	SYS: 40 to 135 mmHg
	DIA: 10 to 100 mmHg
	MAP: 20 to 110 mmHg
Cuff pressure measuring range	0 to 300 mmHg
Pressure resolution	1 mmHg
Maximum mean error	±5 mmHg
Maximum standard deviation	8 mmHg
Maximum Measuring Period	
Adult/pediatric	120 s
Neonate	90 s
Typical measuring period	20 to 35 s (depend on HR/motion disturbance)
Overpressure Protection	
Adult	297 ±3 mmHg
Pediatric	245 ±3 mmHg
Neonatal	147 ±3 mmHg
Pulse Rate	
Measuring range	40 to 240 bpm
Accuracy	±3 bpm or 3.5%, whichever is larger
SpO_2	
Measuring range	0 to 100%
Resolution	1%
Accuracy	
Adult (including pediatric)	±2% (70 to 100% SpO_2)
	Undefined (0 to 69% SpO_2)
Neonate	±3% (70 to 100% SpO_2)
	Undefined (0 to 69% SpO_2)
Perfusion Index	
Measuring range	0 – 10, invalid PI value is 0
Resolution	1
Pulse Rate	
Measuring range	25 to 300 bpm
Resolution	1 bpm
Adjustable range of alarm limits	30 to 300 bpm
Accuracy	±2 bpm
Nellcor Module	
Measuring range	1% to 100%
Alarm range	20% to 100%
Resolution	1%
Data update period	1 s
Accuracy (70% to 100% SpO_2):	
DS-100A, OXI-A/N (adult)	±3%
OXI-A/N (neonate)	±4%
D-YS (infant to adult)	±3%
D-YS (neonate)	±4%
D-YS with D-YSE ear clip	±3.5%
MAX-FAST	±2%

Technical Data

Pulse Rate	
Measuring range	20 to 300 bpm
Resolution	1 bpm
Accuracy	±3 bpm (20 to 250 bpm)
Sensor wavelength	Approximately 660 and 900nm
Emitted light energy	<15 mW

NOTE

Information about the wavelength range can be especially useful to clinicians (for instance, when photodynamic therapy is performed).

Temperature	
Channels	2
Measuring and alarm range	0 to 50°C (32 to 122°F)
Sensor type	YSI 2.252K/YSI 10K
Resolution	0.1°C (0.1°F)
Accuracy (without sensor)	±0.1°C
Refresh time	Every 1 to 2 s

IBP	
Accuracy (not including sensor)	±2% or ±1 mmHg, whichever is greater
Resolution	1 mmHg

Pressure Sensor	
Sensitivity	5 (μV/V/mmHg)
Impedance range	300 Ω to 3,000 Ω
Filter	DC~ 12.5 Hz; DC~ 40 Hz
Zero	Range: ±200 mmHg

Measuring and Alarm Range	
Art	0 to 300 mmHg
PA	-6 to 120 mmHg
CVP/RAP/LAP/ICP	-10 to 40 mmHg
P1/P2	-50 to 300 mmHg

CO_2

Complies with ISO 80601-2-55: 2011.				
Intended patient	Adult, pediatric, neonatal			
Measure parameters	$etCO_2$, $FiCO_2$, AwRR			
Unit	mmHg, %, kPa			
Measuring range	CO_2	0 mmHg to 150 mmHg (0% to 20%)		
	AwRR	2 rpm to 150 rpm		
Resolution	$etCO_2$	1 mmHg		
	$FiCO_2$	1 mmHg		
	AwRR	1 rpm		
Accuracy	$etCO_2$	±2 mmHg, 0 mmHg to 40 mmHg	Respiratory rate ≤ 60 rpm	Typical conditions: Ambient temperature: (25±3)°C Barometric pressure: (760±10) mmHg Balance gas: N_2 Sample gas flow rate: 100 ml/min
		±5% of reading, 41 mmHg to 70 mmHg		
		±8% of reading, 71 mmHg to 100 mmHg		
		±10% of reading, 101 mmHg to 150 mmHg		
		±12% of reading or	Respiratory rate	All conditions

Technical Data

		±4 mmHg, whichever is greater	> 60 rpm	
	AwRR	±1 rpm		
Drift of measure accuracy	Meets the requirements of the measure accuracy			
Sample gas flow rate	70 ml/min or 100 ml/min(default), accuracy: ±15 ml/min			
Warm-up time	Display reading within 20 s; reach to the designed accuracy within 2 minutes.			
Rise time	< 400 ms (water trap with 2 m gas sampling tube, sample gas flow rate: 100 ml/min)			
Response time	< 4 s (water trap with 2 m gas sampling tube, sample gas flow rate: 100 ml/min)			
Work mode	Standby, measure			
O_2 compensation	Range: 0% to 100% Resolution: 1% Default: 16%			
N_2O compensation	Range: 0% to 100% Resolution: 1% Default: 0%			
AG compensation	Range: 0% to 20% Resolution: 0.1% Default: 0%			
Humidity compensation method	ATPD(default), BTPS			
Barometric pressure compensation	Automatic (The change of barometric pressure will not add additional errors to the measurement values.)			
Zero calibration	Support			
Calibration	Support			
Alarm	$etCO_2$, $FiCO_2$, AwRR			
Apnea alarm delay	10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s, 60 s; default value is 20 s.			
Data sample rate	100 Hz			
$etCO_2$ change[1]	AwRR >80 rpm, $etCO_2$ descending 8% AwRR >120 rpm, $etCO_2$ descending 10%			

NOTE

Use a test device equivalent to EN ISO 80601-2-55 fig 201.101 to measure at 1:2 I/E ratio. Respiration rate accuracy is determined by frequency of device, and ET READING change refers to the nominal value.

Interfering Gas Effects:

Gas	Gas Level (%)	Quantitative Effect/Comments
Nitrous oxide	60	The interfering gas will have no effect on the measurement value if compensation of O_2, N_2O, anesthetic agents has been correctly set.
Halothane	4	
Enflurane	5	
Isoflurane	5	
Sevoflurane	5	
Desflurane	15	

Respironics Module

Applicable patient type	Adult, pediatric and neonatal patients
Technique	Infra-red absorption technique
Measure parameters	$etCO_2$, $FiCO_2$, AwRR
Unit	mmHg, %, Kpa

Measuring Range

$etCO_2$	0 mmHg to 150 mmHg
$FiCO_2$	3 mmHg to 50 mmHg

Technical Data

AwRR	0 rpm to 150 rpm (mainstream)	
	2 rpm to 150 rpm (sidestream)	
Resolution	$etCO_2$	1 mmHg
	$FiCO_2$	1 mmHg
	AwRR	1 rpm
$etCO_2$ accuracy	± 2 mmHg, 0 mmHg to 40 mmHg	
	± 5% of reading, 41 mmHg to 70 mmHg	
	± 8% of reading, 71 mmHg to 100 mmHg	
	± 10% of reading, 101 mmHg to 150 mmHg	
	± 12% of reading, RR is over 80 rpm (sidestream)	
	There will be no degradation in performance due to respiration rate (mainstream)	
AwRR accuracy	± 1 rpm	
Operation mode	Measure, standby	
Sample gas flow rate (sidestream)	(50 ±10) ml/min	

O_2 Compensation

Range	0% to 100%
Resolution	1%
Default	16%
Barometric pressure compensation	User setup

Anesthetic Gas Compensation

Range	0% to 20%
Resolution	0.1%
Default	0.0%
Balance gas compensation	Room air, N_2O, helium

Stability

Short-term drift	Drift over 4 hours < 0.8 mmHg
Long-term drift	120 hours
Zero calibration	Support
Alarm type	$etCO_2$, $FiCO_2$, AwRR
Apnea alarm delay	10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s; default value is 20 s
Data sample rate	100 Hz
CO_2 rise time/response time (mainstream)	Less than 60 ms
Sensor response time (sidestream)	< 3 seconds, including transport time and rise time

Interfering Gas and Vapor Effects on $etCO_2$ Measurement Values:

Nitrous oxide	60	Dry and saturated gas
Halothane	4	(0 ~ 40) mmHg: ±1 mmHg additional error
Enflurane	5	(41 ~ 70) mmHg: ±2.5% additional error
Isoflurane	5	(71 ~ 100) mmHg: ±4% additional error
Sevoflurane	5	(101 ~ 150) mmHg: ±5% additional error
Xenon	80	Note: Additional worst case error when
Helium	50	compensation for PB, O_2, N_2O, anesthetic
Desflurane	15	agents, or helium is correctly selected for the actual fractional gas constituents present.
		Desflurane:
		The presence of desflurane in the exhaled breath at concentrations greater than 5% will positively bias carbon dioxide values by up to an additional 3 mmHg at

Technical Data

		38 mmHg. Xenon: The presence of xenon in the exhaled breath will negatively bias carbon dioxide values by up to an additional 5 mmHg at 38 mmHg.

Barometric Pressure on $etCO_2$ Measurement Values:

Quantitative Effect

Ambient barometric, operational
(0 ~ 40) mmHg: ± 1 mmHg additional error
(41 ~ 70) mmHg: ± 2.5% additional error
(71 ~ 100) mmHg: ± 4% additional error
(101 ~ 150) mmHg: ± 5% additional error
Note: Additional worst case error when compensation for PB, O_2, N_2O, anesthetic agents, or helium is correctly selected for the actual fractional gas constituents present.

NOTE

Respiration rate accuracy was verified by using a solenoid test setup to deliver a square wave of known CO_2 concentration to the device. 5% and 10% CO_2 concentrations were used. Respiration rate was varied over the range of the device. Pass/fail criteria was comparison of the respiratory rate output from the sensor to the frequency of the square wave.

Dräger MCable Mainstream CO_2 Module

Measure parameters	$etCO_2$, $FiCO_2$, AwRR
Unit	mmHg, %, Kpa

Measuring Range

$etCO_2$	0 mmHg to 100 mmHg	
$FiCO_2$	0 mmHg to 100 mmHg	
AwRR	3 rpm to 150 rpm (PGM algorithm)	
Resolution	$etCO_2$	1 mmHg
	$FiCO_2$	1 mmHg
	AwRR	1 rpm
$etCO_2$ accuracy	< 0.5 mmHg rms, 0 mmHg to 40 mmHg	
	< 1 mmHg rms, 40.1 mmHg to 100 mmHg	
Operation mode	Measure, standby	
Local barometric pressure	57 kPa to 110 kPa	

O_2 Compensation

Range	0% to 100%
Resolution	1%
Default	16%

N_2O Compensation

Range	0% to 100%
Resolution	1%
Default	0%

He Compensation

Range	0% to 100%
Resolution	1%

Technical Data

Default	0%

Xe Compensation

Range	0% to 100%
Resolution	1%
Default	0%
Zero calibration	Support
Alarm type	etCO_2, FiCO_2, AwRR
Apnea alarm delay	10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s; default value is 20 s
Data reporting rate	Every 10 msec or 20 msec
Response time	Rise time: t10–90 = 24 msec Delay time: 150 msec
Warm up	The sensor meets the specified operating performance within 2 minutes typical from power on or reset at ambient temperatures from 20°C to 40°C (68°F to 104°F). At 10°C (50°F) ambient temperature, time from power on to reach the specified operating performance is 10 min approximately.

Interfering Gases and Vapours

N_2O 100 vol.%	0.00 vol.%
Halothane 5 vol.%	0.02 vol.%
Enflurane 5 vol.%	0.03 vol.%
Isoflurane 5 vol.%	0.02 vol.%
Sevoflurane 5 vol.%	0.02 vol.%
Desflurane 20 vol.%	0.00 vol.%
Ethanol 4‰ *	0.00 vol.%
Acetone 1‰ *	0.00 vol.%
Isopropanol 1%	0.00 vol.%
Methane 3 vol.%	<0.02 vol.%
NO 100 ppm	0.01 vol.%
NO_2 50 ppm	0.00 vol.%
CO 4 vol.%	0.00 vol.%
Freon R21 100 vol.%	0.07 vol.%
Freon R134a 100 vol.%	0.19 vol.%
Heptafluorpropane 0.7 vol.%	0.00 vol.%
Water vapour 37°C saturated	0.01 vol.%
*blood concentration equivalent	

NOTE

The numbers given at the end of each line are typical CO_2 readings of the sensor for the pure interfering gas or vapour, balance N_2 (if applicable), without CO_2 content. CO_2 reading of common mixtures like CO_2, O_2, N_2O, anaesthetic agent (in physiological concentration) or CO_2, O_2, N_2, water vapour is within specified bias, provided that the major foreign gases (see above: O_2, N_2O, He, Xe) are entered to the sensor.

Effects of Humidity or Condensate

The airway adapter windows are indirectly heated via the sensor to prevent moisture condensation. While by sensor design the effect of water droplets spilled onto the airway adapter windows and of contamination, as long as still some measurement light passes the airway adapter windows, is largely compensated for, water droplets and other window contamination may slightly influence measurement bias, up to 0.3 Vol.% approximately at 5 Vol.% CO_2 (normally much less). Precision, of course, worsens if less light passes (i.e., noise of reading gets higher). After some time, water droplets are heated away.

If measurement light is blocked such that noise of reading gets unacceptably high, an error message is sent from the CO_2 sensor indicating that the airway adapter has to be checked (cleaned or replaced).

Technical Data

BIS

Technique	**Bispectral Index, Power Spectrum Analysis**		
Measure parameters	Primary parameter	BIS	0 to 100
	Secondary parameters	SQI	0% to 100%
		SR	0% to 100%
		EMG	30 dB to 80 dB
		SEF	0.5 Hz to 30.0 Hz
		TP	40 dB to 100 dB
		BC (only applicable to BIS™ extend sensor)	0 to 30
Sweep speed	6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s		
Wave scale	50 µv, 100 µv, 200 µv, 500 µv		
BIS trend	Length of BIS trend: 6 min, 12 min, 30 min, 60 min		
Smoothing rate	10 s, 15 s, 30 s		
Noise (EEG waveform)	< 0.3 µV (0.25 Hz ~ 50 Hz)		
EEG bandwidth	0.25 Hz ~ 50 Hz		
BIS alarm range	0 ~ 100		

C.O.

Measure parameters	C.O., TB, TI
Measurement method	Thermodilution technique

Measuring Range

C.O.	0.1 l/min ~ 20 l/min
TB	23°C ~ 43°C
TI	-1°C ~ 27°C

Resolution

C.O.	0.1 l/min
TB, TI	0.1°C (+0.1°F)

Accuracy

C.O.	±5% or 0.2 l/min, whichever is greater
TB	±0.1°C (without sensor)
TI	±0.1°C (without sensor)

Trend review

Short	1 hr, 1 s. resolution
Long	150 hrs, 1 min. resolution
NIBP measurement data review	1200 sets
Alarm review	200 sets
Arrhythmia review	200 sets

NOTE

Regarding the AG specifications, refer to the Supplement Scio Four modules.

Wireless

IEEE	802.11 b/g/n
Frequency band	2.4 GHz ISM band
Modulation	OFDM with BPSK, QPSK, 16-QAM, and 64-QAM 802.11 b with CCK and DSSS
Typical transmit power (±2 dBm)	17 dBm for 802.11 b DSSS, 17 dBm for 802.11 b CCK, 15 dBm for 802.11 g/n OFDM

Technical Data

Device Connectivity	
Protocol	Medibus/Medibus.X
Supported device	Atlan, Fabius Plus/XL, Fabius GS Premium, Fabius Tiro, Fabius MRI, Primus/IE, A500, Zeus IE, Evita V500, Evita VN500, V300, Savina/300/Classic/Select, Babylog 8000 Plus, Babylog VN500, Oxylog 3000 Plus

Recorder	
Record width	48 mm (1.9 inch)
Paper width	50 mm
Paper speed	12.5, 25, 50 mm/s
Trace	Up to 3 waveforms
Recording types	– Continuous real-time recording – 8/20 seconds real-time recording – Oxygenation calculation result recording – Ventilation calculation result recording – Renal function calculation result recording – Trend graph recording – Trend table recording – NIBP review recording – Arrhythmia review recording – Alarm review recording – C.O. measurement recording – Frozen waveform recording – Drug calculation titration recording – Hemodynamic calculation result recording

Display Specifications	
Display screen	380 mm (15 inch) color TFT
Resolution	1024 x 768
Maximum number of waveforms	13
Indicator LEDs	1 power, 2 alarm, 1 charge

Physical Specification	
Size (H x W x D)	(408±2) mm x (316±2) mm x (157±2) mm (12.4 x 16.1 x 6.2 inch)
Weight	<7.0 kg (15.4 lbs)

Electrical Specification	
Power supply	100 V – 240 V~, 50 Hz/60 Hz
Current	1.4 A-0.7 A
FUSE	T 3.15 AH, 250 VP

Classification	
Protection class	Class I equipment and internal powered equipment
EMC type	Class A
Degree of protection against electric shock	CF: ECG (RESP), TEMP, IBP, C.O. BF: SpO_2, NIBP, CO_2, AG, BIS
Liquid ingress protection	IPX1
Mode of operation	Continuous

Lithium-ion Battery (optional)	
Quantity	1
Capacity	5,000 mAh

Technical Data

Battery life	≥ 300 min (At 25±2°C, with (a) new fully charged battery/ batteries, continuous SpO_2 measurement and NIBP automatic measurement mode at interval of 15 minutes, Dräger ECG/TEMP module connected, recording at interval of 10 minutes, brightness set to “1”)
Battery charge time	≤ 390 min, 100% charge (monitor is on or in standby mode) ≤ 351 min, 90% charge (monitor is on or in standby mode)

Enviromental Requirements

The monitor may not meet the performance specifications given here if stored or used outside the specified temperature and humidity ranges. When the monitor and related products have differing environmental specifications, the effective range for the combined products is that range which is common to the specifications for all products.

Temperature Range

Operating	0 to 40°C (32 to 104°F)
Transport and storage	-20 to 55°C (-4 to 131°F)

Relative Humidity

Operating	15% RH ~ 95% RH (non-condensing)
Transport and storage	15% RH ~ 95% RH (non-condensing)

Atmospheric Pressure

Operating	86 kPa ~ 106 kPa
Transport and storage	70 kPa ~ 106 kPa

Standards

IEC 60601-1: 2005+A1 :2012; IEC 60601-1-2: 2007; EN 60601-1: 2006+A1 :2013; EN 60601-1-2: 2007; IEC 60601-2-49: 2011
The Vista 120 monitors comply with the Medical Device Directive (MDD) 93/42/EEC.

Vista 120	MS34008	MS34010	MS34009	MS34011
3/5 lead ECG	X	X	X	X
Proprietary SpO_2	X		X	
Nellcor SpO_2		X		X
NBP	X	X	X	X
Dual temps	X	X	X	X
3IBP			X	X
CO			X	X
$etCO_2$			X	X
BISx			X	X
Built-in recorder		X	X	X
Gas bench	X	X	X	X
LAN	X	X	X	X
Wireless	X	X	X	X

Vista 120 monitors are available in select markets only.
For availability in your area, please contact the appropriate Dräger office from those listed below.

Notes

Notes

9105 981 | 20.06-3 | HQ | PP | Subject to modifications | © 2020 Drägerwerk AG & Co. KGaA

CORPORATE HEADQUARTERS
Drägerwerk AG & Co. KGaA
Moislinger Allee 53–55
23558 Lübeck, Germany
www.draeger.com

Manufacturer:
Drägerwerk AG & Co. KGaA
Moislinger Allee 53-55
23542 Lübeck, Germany

REGION EUROPE
Drägerwerk AG & Co. KGaA
Moislinger Allee 53–55
23558 Lübeck, Germany
Tel +49 451 882 0
Fax +49 451 882 2080
info@draeger.com

REGION MIDDLE EAST, AFRICA
Drägerwerk AG & Co. KGaA
Branch Office
P.O. Box 505108
Dubai, United Arab Emirates
Tel +971 4 4294 600
Fax +971 4 4294 699
contactuae@draeger.com

REGION ASIA PACIFIC
Draeger Singapore Pte. Ltd.
61 Science Park Road
The Galen #04-01
Singapore 117525
Tel: +65 6872 9288
Fax: +65 6259 0398
asia.pacific@draeger.com

REGION CENTRAL AND SOUTH AMERICA
Dräger Indústria e Comércio Ltda.
Al. Pucurui - 51 - Tamboré
06460-100 - Barueri - São Paulo
Tel. +55 (11) 4689-4900
relacionamento@draeger.comDraeger
Panamá Comercial

Locate your Regional Sales Representative at:
www.draeger.com/contact