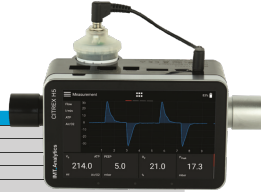


CITREX H5

Technical Specifications



Flow and pressure measurements		Range	Accuracy
Flow	Measuring direction	Bidirectional	
	Temperature compensated	Automatic	
	Pressure compensated	Automatic	
	Humidity compensated	Manually	
	O ₂ compensated	—	
	High Flow	± 300 L/min	± 1.9%* or ± 0.1 L/min (for 10..40°C)**
Pressure	High Pressure (P _{app})	0–10 bar	± 1%* or ± 10 mbar**
	Differential Pressure (P _{diff})	± 200 mbar	± 0.75%* or ± 0.1 mbar**
	Relative Pressure	—	—
	Low Pressure	—	—
	Pressure in High Flow Channel (P _{conv})	± 50–150 mbar	± 0.75%* or ± 0.1 mbar**
	Atmospheric Pressure (P _{atm})	500–1150 mbar	± 1%* or ± 5 mbar**
Vacuum Pressure	—	—	
Units	Flow	L/min, L/s, cfm, mL/min, mL/s	
	Pressure	bar, mbar, cmH ₂ O, inH ₂ O, Torr, inHg, hPa, kPa, mmHg, PSI	
Other measurements		Range	Accuracy
Oxygen	Concentration	0–100%	± 1% O ₂ **
	Pressure compensated	± 150 mbar	—
Temperature	In High Flow Channel	0–50°C	± 1.75%* or ± 0.5°C**
Dew point	—	—	—
Humidity	—	—	—
CO ₂	Concentration (with optional CR-703)	0–10%	± (0.2% ABS + 2% REL)
	Concentration (with optional CR-703)	10–20%	± (0.3% ABS + 4% REL)
N ₂ O	Concentration (with optional CR-703)	0–100%	± (2% ABS + 2% REL)
	Concentration (with optional CR-703)	0–5%	± (0.15% ABS + 5% REL)
HAL, ISO, ENF	Concentration (with optional CR-703)	0–10%	± (0.2% ABS + 10% REL)
	Concentration (with optional CR-703)	0–10%	± (0.15% ABS + 5% REL)
SEV	Concentration (with optional CR-703)	10–15%	± (0.2% ABS + 10% REL)
	Concentration (with optional CR-703)	22–25%	± (0.15% ABS + 5% REL)
DES	Concentration (with optional CR-703)	22–25%	± (0.2% ABS + 10% REL)
	Concentration (with optional CR-703)	22–25%	± (0.2% ABS + 10% REL)
Gas types	Air, O ₂ , Air/O ₂ , N ₂ O, N ₂ O/O ₂ , He/O ₂ , N ₂ , CO ₂		
Gas standards	ATP, ATPD, ATPS, AP21, STR, STPH, BTPS, BTPS-A, BTPD, BTPD-A, 0/1013, 20/981, 15/1013, 25/981, 20/1013, NTPD, NTPS		
Ventilation parameters		Range	Accuracy
Breath rate	Rate	1–1000 bpm	± 1 bpm* or ± 2.5%**
	T _r , T _e	0.05–60 s	± 0.02 s
Time	T _r , T _e	0.05–60 s	± 0.02 s
	Ratio	1:1–300:1	± 2.5%**
Ratio	I:E	1:1–300:1	± 2.5%**
	T _r /T _e	0–100%	± 5%**
Breath volumes	V _T	0–100%	± 2%* or ± 0.20 mL (> 6 mL/min)**
	V _I , V _E	± 10 L	± 2%* or ± 0.20 mL (> 6 mL/min)**
Minute volume	V _I , V _E	0–300 L/min	± 2.5%**
	Pressure	P _{max} , P _{mean} , PEEP, P _{max} , IPAP	0–180 mbar
Peakflow	PF _{max} , PF ₅₀	± 300 L/min	± 1.9%* or ± 0.1 L/min**
	Compliance	C _{exp}	0–1000 mL/mbar
Trigger	Adult, Pediatric, HF0, ext. Trigger	Adult, Pediatric, HF0; Adjustable on flow or pressure curves with user-defined limits.	
General information			
Power	100–240 VAC, 50/60 Hz		
Battery	5 hours		
Power consumption	2.5–6 W		
Weight	0.52 kg		
Dimensions (w x d x h)	11.4 x 7 x 7.3 cm		
Data storage	Internal and microSD Card		
Display	4.3" Multi-Touch (color), Realtime curves		
Interfaces	RS-232, USB, Ethernet, CAN, Analog Out, TTL, WLAN, TSI4000 and Pima Protocol		
Calibration	Annually		
Conditions Ambient temperature	15–40°C (59–104°F)		
Conditions Humidity	10–90% RH***		
Approvals	CE, BC (Energy Efficiency for Battery Charging System), CSA (North America), IEC 61010-1:2010, IEC 61326-2:2012		

The greater tolerance is valid. *Tolerance related to the measured value. ** Absolute tolerance. *** The unit L/min is based on ambient conditions of 0°C and 1013.25 mbar (DN 1343).

CITREX H4

Technical Specifications



Flow and pressure measurements		Range	Accuracy
Flow	Measuring direction	Bidirectional	
	Temperature compensated	Automatic	
	Pressure compensated	Automatic	
	Humidity compensated	Manually	
	O ₂ compensated	—	
	High Flow	± 300 L/min***	± 1.9%* or ± 0.1 L/min (for 10..40°C)**
Pressure	High Pressure (P _{app})	0–10 bar	± 1%* or ± 10 mbar**
	Differential Pressure (P _{diff})	± 200 mbar	± 0.75%* or ± 0.1 mbar**
	Relative Pressure	—	—
	Low Pressure	—	—
	Pressure in High Flow Channel (P _{conv})	± 50–150 mbar	± 0.75%* or ± 0.1 mbar**
	Atmospheric Pressure (P _{atm})	500–1150 mbar	± 1%* or ± 5 mbar**
Vacuum Pressure	—	—	
Units	Flow	L/min, L/s, cfm, mL/min, mL/s	
	Pressure	bar, mbar, cmH ₂ O, inH ₂ O, Torr, inHg, hPa, kPa, mmHg, PSI	
Other measurements		Range	Accuracy
Oxygen	Concentration	0–100%	± 1% O ₂ **
	Pressure compensated	± 150 mbar	—
Temperature	In High Flow Channel	0–50°C	± 1.75%* or ± 0.5°C**
Dew point	—	—	—
Humidity	—	—	—
CO ₂	Concentration (with optional CR-703)	0–10%	± (0.2% ABS + 2% REL)
	Concentration (with optional CR-703)	10–20%	± (0.3% ABS + 4% REL)
N ₂ O	Concentration (with optional CR-703)	0–100%	± (2% ABS + 2% REL)
	Concentration (with optional CR-703)	0–5%	± (0.15% ABS + 5% REL)
HAL, ISO, ENF	Concentration (with optional CR-703)	0–10%	± (0.2% ABS + 10% REL)
	Concentration (with optional CR-703)	0–10%	± (0.15% ABS + 5% REL)
SEV	Concentration (with optional CR-703)	10–15%	± (0.2% ABS + 10% REL)
	Concentration (with optional CR-703)	22–25%	± (0.15% ABS + 5% REL)
DES	Concentration (with optional CR-703)	22–25%	± (0.2% ABS + 10% REL)
	Concentration (with optional CR-703)	22–25%	± (0.2% ABS + 10% REL)
Gas types	Air, O ₂ , Air/O ₂ , N ₂ O, N ₂ O/O ₂ , He/O ₂ , N ₂ , CO ₂		
Gas standards	ATP, ATPD, ATPS, AP21, STR, STPH, BTPS, BTPS-A, BTPD, BTPD-A, 0/1013, 20/981, 15/1013, 25/981, 20/1013, NTPD, NTPS		
Ventilation parameters		Range	Accuracy
Breath rate	Rate	1–1000 bpm	± 1 bpm* or ± 2.5%**
	T _r , T _e	0.05–60 s	± 0.02 s
Time	T _r , T _e	0.05–60 s	± 0.02 s
	Ratio	1:1–300:1	± 2.5%**
Ratio	I:E	1:1–300:1	± 2.5%**
	T _r /T _e	0–100%	± 5%**
Breath volumes	V _T	0–100%	± 2%* or ± 0.20 mL (> 6 mL/min)**
	V _I , V _E	± 10 L	± 2%* or ± 0.20 mL (> 6 mL/min)**
Minute volume	V _I , V _E	0–300 L/min	± 2.5%**
	Pressure	P _{max} , P _{mean} , PEEP, P _{max} , IPAP	0–180 mbar
Peakflow	PF _{max} , PF ₅₀	± 300 L/min	± 1.9%* or ± 0.1 L/min**
	Compliance	C _{exp}	0–1000 mL/mbar
Trigger	Adult, Pediatric, HF0, ext. Trigger	Adult, Pediatric, HF0	
General information			
Power	100–240 VAC, 50/60 Hz		
Battery	4 hours		
Power consumption	2.5–6 W		
Weight	0.40 kg		
Dimensions (w x d x h)	11.4 x 7 x 6 cm		
Data storage	microSD Card		
Display	1.7" with touch control elements (color), Realtime curves		
Interfaces	RS-232, USB, Ethernet, CAN, Analog Out, TTL (external Trigger Input), TSI4000 Protocol		
Calibration	Annually		
Conditions Ambient temperature	15–40°C (59–104°F)		
Conditions Humidity	10–90% RH***		
Approvals	CE, BC (Energy Efficiency for Battery Charging System), CSA (North America), IEC 61010-1:2010, IEC 61326-2:2012		

The greater tolerance is valid. *Tolerance related to the measured value. ** Absolute tolerance. *** The unit L/min is based on ambient conditions of 0°C and 1013.25 mbar (DN 1343).

CITREX H3

Technical Specifications



Flow and pressure measurements		Range	Accuracy
Flow	Measuring direction	Bidirectional	
	Temperature compensated	Automatic	
	Pressure compensated	Automatic	
	Humidity compensated	Manually	
	O ₂ compensated	—	
	High Flow	± 300 L/min***	± 1.9%* or ± 0.1 L/min (for 10..40°C)**
Pressure	High Pressure (P _{app})	—	—
	Differential Pressure (P _{diff})	—	—
	Relative Pressure	—	—
	Low Pressure	—	—
	Pressure in High Flow Channel (P _{conv})	± 50–150 mbar	± 0.75%* or ± 0.1 mbar**
	Atmospheric Pressure (P _{atm})	500–1150 mbar	± 1%* or ± 5 mbar**
Vacuum Pressure	—	—	
Units	Flow	L/min, L/s, cfm	
	Pressure	bar, mbar, cmH ₂ O, mmHg, inH ₂ O	
Other measurements		Range	Accuracy
Oxygen	Concentration	0–100%	± 1% O ₂ **
	Pressure compensated	± 150 mbar	—
Temperature	In High Flow Channel	0–50°C	± 1.75%* or ± 0.5°C**
Dew point	—	—	—
Humidity	—	—	—
CO ₂	Concentration (with optional CR-703)	0–10%	± (0.2% ABS + 2% REL)
	Concentration (with optional CR-703)	10–20%	± (0.3% ABS + 4% REL)
N ₂ O	Concentration (with optional CR-703)	0–100%	± (2% ABS + 2% REL)
	Concentration (with optional CR-703)	0–5%	± (0.15% ABS + 5% REL)
HAL, ISO, ENF	Concentration (with optional CR-703)	0–10%	± (0.2% ABS + 10% REL)
	Concentration (with optional CR-703)	0–10%	± (0.15% ABS + 5% REL)
SEV	Concentration (with optional CR-703)	10–15%	± (0.2% ABS + 10% REL)
	Concentration (with optional CR-703)	22–25%	± (0.15% ABS + 5% REL)
DES	Concentration (with optional CR-703)	22–25%	± (0.2% ABS + 10% REL)
	Concentration (with optional CR-703)	22–25%	± (0.2% ABS + 10% REL)
Gas types	Air, O ₂ , Air/O ₂ , N ₂ O, N ₂ O/O ₂		
Gas standards	ATP, ATPD, ATPS, AP21, STR, STPH, BTPS, BTPS-A, BTPD		
Ventilation parameters		Range	Accuracy
Breath rate	Rate	1–1000 bpm	± 1 bpm* or ± 2.5%**
	T _r , T _e	0.05–60 s	± 0.02 s
Time	T _r , T _e	0.05–60 s	± 0.02 s
	Ratio	1:1–300:1	± 2.5%**
Ratio	I:E	1:1–300:1	± 2.5%**
	T _r /T _e	—	—
Breath volumes	V _T	—	—
	V _I , V _E	± 10 L	± 2%* or ± 0.20 mL (> 6 mL/min)**
Minute volume	V _I , V _E	0–300 L/min	± 2.5%**
	Pressure	P _{max} , P _{mean} , PEEP, P _{max} , IPAP	0–150 mbar
Peakflow	PF _{max} , PF ₅₀	± 300 L/min	± 2.0%* or ± 0.1 L/min**
	Compliance	C _{exp}	—
Trigger	Adult, Pediatric, ext. Trigger	Adult, Pediatric	
General information			
Power	100–240 VAC, 50/60 Hz		
Battery	4 hours		
Power consumption	2.5–6 W		
Weight	0.38 kg		
Dimensions (w x d x h)	11.4 x 7 x 6 cm		
Data storage	microSD Card		
Display	1.7" with touch control elements (color), Realtime curves		
Interfaces	Ethernet		
Calibration	Annually		
Conditions Ambient temperature	15–40°C (59–104°F)		
Conditions Humidity	10–90% RH***		
Approvals	CE, BC (Energy Efficiency for Battery Charging System), CSA (North America), IEC 61010-1:2010, IEC 61326-2:2012		

The greater tolerance is valid. *Tolerance related to the measured value. ** Absolute tolerance. *** The unit L/min is based on ambient conditions of 0°C and 1013.25 mbar (DN 1343).