EC Sense Selection Guide

10 models · downloadable datasheets also available per model on anchorsensor.com

TB200B-ES1-TVOC-10 — TB200B-ES1-TVOC-10 Volatile Organic Compounds (TVOC) Detection Module

The EC Sense TB200B-ES1-TVOC-10 is an industrial-safety-grade smart digital gas sensor module for Volatile Organic Compounds (TVOC) detection, with a 0 – 10 ppm range and 0.001 ppm resolution. The module uses the compact ES1 electrochemical sensor (40 × 30 × 1…

Target Gas	Volatile Organic Compounds (TVOC)
Detection Range	0 – 10 ppm
Resolution	0.001 ppm
Sensor Packaging	ES1
Order No. (UART)	04-TB200B-ES1-TVOC-10-01
Order No. (I²C)	04-TB200B-ES1-TVOC-10-I2C-01
Operating Principle	Solid Polymer Electrochemical Sensing Technology
Accuracy	± 5% (measurement value)
Repeatability	1%
Linearity	Linear
Long-Term Drift	< 5% / year
Expected Lifetime	> 5 years
Output Signal	UART (TTL 3.3 V) or I²C digital signal
UART Parameters	Baud rate 9600, 8 data bits, 1 stop bit; VCC red / GND black / RX yellow / TX green
I²C Parameters	Frequency ≤ 20 kHz, signal voltage 3.3 V; VCC red / GND black / SDA yellow / SCL green
Communication Mode	Active-upload and question-answer modes; Q&A is the default on power-up
Built-in Temperature Sensor	-20 ℃ to +70 ℃, ± 0.2 ℃ (typical)
Built-in Humidity Sensor	0 – 100% RH, ± 2% (typical)
Working Temperature	-40 ℃ to +55 ℃
Working Humidity	15 – 95% RH (non-condensing)
Working Pressure	Atmospheric pressure ± 10%
Size (Including Sensor)	40 × 30 × 12 mm
Size (Without Sensor)	40 × 30 × 5.6 mm
Weight	< 15 g (including sensor)
Cable Length	100 mm, special length by request
Warranty	12 months from the date of shipment

Every module is professionally calibrated with standard gas before shipment, with the calibration data stored in its flash chip — plug-and-play, no secondary gas calibration required. Refer to the dat

TB200B-ES1-TVOC-1000 — TB200B-ES1-TVOC-1000 Volatile Organic Compounds (TVOC) Detection Module

The EC Sense TB200B-ES1-TVOC-1000 is an industrial-safety-grade smart digital gas sensor module for Volatile Organic Compounds (TVOC) detection, with a 0 – 1000 ppm range and 0.1 ppm resolution. The module uses the compact ES1 electrochemical sensor (40 × 30 ×…

Target Gas	Volatile Organic Compounds (TVOC)
Detection Range	0 – 1000 ppm
Resolution	0.1 ppm
Sensor Packaging	ES1
Order No. (UART)	04-TB200B-ES1-TVOC-1000-01
Order No. (I²C)	04-TB200B-ES1-TVOC-1000-I2C-01
Operating Principle	Solid Polymer Electrochemical Sensing Technology
Accuracy	± 5% (measurement value)
Repeatability	1%
Linearity	Linear
Long-Term Drift	< 5% / year
Expected Lifetime	> 5 years
Output Signal	UART (TTL 3.3 V) or I²C digital signal
UART Parameters	Baud rate 9600, 8 data bits, 1 stop bit; VCC red / GND black / RX yellow / TX green
I²C Parameters	Frequency ≤ 20 kHz, signal voltage 3.3 V; VCC red / GND black / SDA yellow / SCL green
Communication Mode	Active-upload and question-answer modes; Q&A is the default on power-up
Built-in Temperature Sensor	-20 ℃ to +70 ℃, ± 0.2 ℃ (typical)
Built-in Humidity Sensor	0 – 100% RH, ± 2% (typical)
Working Temperature	-40 ℃ to +55 ℃
Working Humidity	15 – 95% RH (non-condensing)
Working Pressure	Atmospheric pressure ± 10%
Size (Including Sensor)	40 × 30 × 12 mm
Size (Without Sensor)	40 × 30 × 5.6 mm
Weight	< 15 g (including sensor)
Cable Length	100 mm, special length by request
Warranty	12 months from the date of shipment

Every module is professionally calibrated with standard gas before shipment, with the calibration data stored in its flash chip — plug-and-play, no secondary gas calibration required. Refer to the dat

TB200B-ES1-TVOC-200 — TB200B-ES1-TVOC-200 Volatile Organic Compounds (TVOC) Detection Module

The EC Sense TB200B-ES1-TVOC-200 is an industrial-safety-grade smart digital gas sensor module for Volatile Organic Compounds (TVOC) detection, with a 0 – 200 ppm range and 0.1 ppm resolution. The module uses the compact ES1 electrochemical sensor (40 × 30 × 1…

Target Gas	Volatile Organic Compounds (TVOC)
Detection Range	0 – 200 ppm
Resolution	0.1 ppm
Sensor Packaging	ES1
Order No. (UART)	04-TB200B-ES1-TVOC-200-01
Order No. (I²C)	04-TB200B-ES1-TVOC-200-I2C-01
Operating Principle	Solid Polymer Electrochemical Sensing Technology
Accuracy	± 5% (measurement value)
Repeatability	1%
Linearity	Linear
Long-Term Drift	< 5% / year
Expected Lifetime	> 5 years
Output Signal	UART (TTL 3.3 V) or I²C digital signal
UART Parameters	Baud rate 9600, 8 data bits, 1 stop bit; VCC red / GND black / RX yellow / TX green
I²C Parameters	Frequency ≤ 20 kHz, signal voltage 3.3 V; VCC red / GND black / SDA yellow / SCL green
Communication Mode	Active-upload and question-answer modes; Q&A is the default on power-up
Built-in Temperature Sensor	-20 ℃ to +70 ℃, ± 0.2 ℃ (typical)
Built-in Humidity Sensor	0 – 100% RH, ± 2% (typical)
Working Temperature	-40 ℃ to +55 ℃
Working Humidity	15 – 95% RH (non-condensing)
Working Pressure	Atmospheric pressure ± 10%
Size (Including Sensor)	40 × 30 × 12 mm
Size (Without Sensor)	40 × 30 × 5.6 mm
Weight	< 15 g (including sensor)
Cable Length	100 mm, special length by request
Warranty	12 months from the date of shipment

Every module is professionally calibrated with standard gas before shipment, with the calibration data stored in its flash chip — plug-and-play, no secondary gas calibration required. Refer to the dat

TB200B-ES1-TVOC-2000 — TB200B-ES1-TVOC-2000 Volatile Organic Compounds (TVOC) Detection Module

The EC Sense TB200B-ES1-TVOC-2000 is an industrial-safety-grade smart digital gas sensor module for Volatile Organic Compounds (TVOC) detection, with a 0 – 2000 ppm range and 0.1 ppm resolution. The module uses the compact ES1 electrochemical sensor (40 × 30 ×…

Target Gas	Volatile Organic Compounds (TVOC)
Detection Range	0 – 2000 ppm
Resolution	0.1 ppm
Sensor Packaging	ES1
Order No. (UART)	04-TB200B-ES1-TVOC-2000-01
Order No. (I²C)	04-TB200B-ES1-TVOC-2000-I2C-01
Operating Principle	Solid Polymer Electrochemical Sensing Technology
Accuracy	± 5% (measurement value)
Repeatability	1%
Linearity	Linear
Long-Term Drift	< 5% / year
Expected Lifetime	> 5 years
Output Signal	UART (TTL 3.3 V) or I²C digital signal
UART Parameters	Baud rate 9600, 8 data bits, 1 stop bit; VCC red / GND black / RX yellow / TX green
I²C Parameters	Frequency ≤ 20 kHz, signal voltage 3.3 V; VCC red / GND black / SDA yellow / SCL green
Communication Mode	Active-upload and question-answer modes; Q&A is the default on power-up
Built-in Temperature Sensor	-20 ℃ to +70 ℃, ± 0.2 ℃ (typical)
Built-in Humidity Sensor	0 – 100% RH, ± 2% (typical)
Working Temperature	-40 ℃ to +55 ℃
Working Humidity	15 – 95% RH (non-condensing)
Working Pressure	Atmospheric pressure ± 10%
Size (Including Sensor)	40 × 30 × 12 mm
Size (Without Sensor)	40 × 30 × 5.6 mm
Weight	< 15 g (including sensor)
Cable Length	100 mm, special length by request
Warranty	12 months from the date of shipment

Every module is professionally calibrated with standard gas before shipment, with the calibration data stored in its flash chip — plug-and-play, no secondary gas calibration required. Refer to the dat

TB200B-ES1-TVOC-500 — TB200B-ES1-TVOC-500 Volatile Organic Compounds (TVOC) Detection Module

The EC Sense TB200B-ES1-TVOC-500 is an industrial-safety-grade smart digital gas sensor module for Volatile Organic Compounds (TVOC) detection, with a 0 – 500 ppm range and 0.1 ppm resolution. The module uses the compact ES1 electrochemical sensor (40 × 30 × 1…

Target Gas	Volatile Organic Compounds (TVOC)
Detection Range	0 – 500 ppm
Resolution	0.1 ppm
Sensor Packaging	ES1
Order No. (UART)	04-TB200B-ES1-TVOC-500-01
Order No. (I²C)	04-TB200B-ES1-TVOC-500-I2C-01
Operating Principle	Solid Polymer Electrochemical Sensing Technology
Accuracy	± 5% (measurement value)
Repeatability	1%
Linearity	Linear
Long-Term Drift	< 5% / year
Expected Lifetime	> 5 years
Output Signal	UART (TTL 3.3 V) or I²C digital signal
UART Parameters	Baud rate 9600, 8 data bits, 1 stop bit; VCC red / GND black / RX yellow / TX green
I²C Parameters	Frequency ≤ 20 kHz, signal voltage 3.3 V; VCC red / GND black / SDA yellow / SCL green
Communication Mode	Active-upload and question-answer modes; Q&A is the default on power-up
Built-in Temperature Sensor	-20 ℃ to +70 ℃, ± 0.2 ℃ (typical)
Built-in Humidity Sensor	0 – 100% RH, ± 2% (typical)
Working Temperature	-40 ℃ to +55 ℃
Working Humidity	15 – 95% RH (non-condensing)
Working Pressure	Atmospheric pressure ± 10%
Size (Including Sensor)	40 × 30 × 12 mm
Size (Without Sensor)	40 × 30 × 5.6 mm
Weight	< 15 g (including sensor)
Cable Length	100 mm, special length by request
Warranty	12 months from the date of shipment

Every module is professionally calibrated with standard gas before shipment, with the calibration data stored in its flash chip — plug-and-play, no secondary gas calibration required. Refer to the dat

TB200B-ES4-TVOC-10 — TB200B-ES4-TVOC-10 Volatile Organic Compounds (TVOC) Detection Module

The EC Sense TB200B-ES4-TVOC-10 is an industrial-safety-grade smart digital gas sensor module for Volatile Organic Compounds (TVOC) detection, with a 0 – 10 ppm range and 0.001 ppm resolution. The module uses the standard ES4 electrochemical sensor (40 × 30 × …

Target Gas	Volatile Organic Compounds (TVOC)
Detection Range	0 – 10 ppm
Resolution	0.001 ppm
Sensor Packaging	ES4
Order No. (UART)	04-TB200B-ES4-TVOC-10-01
Order No. (I²C)	04-TB200B-ES4-TVOC-10-I2C-01
Operating Principle	Solid Polymer Electrochemical Sensing Technology
Accuracy	± 5% (measurement value)
Repeatability	1%
Linearity	Linear
Long-Term Drift	< 5% / year
Expected Lifetime	> 5 years
Output Signal	UART (TTL 3.3 V) or I²C digital signal
UART Parameters	Baud rate 9600, 8 data bits, 1 stop bit; VCC red / GND black / RX yellow / TX green
I²C Parameters	Frequency ≤ 20 kHz, signal voltage 3.3 V; VCC red / GND black / SDA yellow / SCL green
Communication Mode	Active-upload and question-answer modes; Q&A is the default on power-up
Built-in Temperature Sensor	-20 ℃ to +70 ℃, ± 0.2 ℃ (typical)
Built-in Humidity Sensor	0 – 100% RH, ± 2% (typical)
Working Temperature	-40 ℃ to +55 ℃
Working Humidity	15 – 95% RH (non-condensing)
Working Pressure	Atmospheric pressure ± 10%
Size (Including Sensor)	40 × 30 × 22.45 mm
Size (Without Sensor)	40 × 30 × 5.6 mm
Weight	< 25 g (including sensor)
Cable Length	100 mm, special length by request
Warranty	12 months from the date of shipment

Every module is professionally calibrated with standard gas before shipment, with the calibration data stored in its flash chip — plug-and-play, no secondary gas calibration required. Refer to the dat

TB200B-ES4-TVOC-1000 — TB200B-ES4-TVOC-1000 Volatile Organic Compounds (TVOC) Detection Module

The EC Sense TB200B-ES4-TVOC-1000 is an industrial-safety-grade smart digital gas sensor module for Volatile Organic Compounds (TVOC) detection, with a 0 – 1000 ppm range and 0.1 ppm resolution. The module uses the standard ES4 electrochemical sensor (40 × 30 …

Target Gas	Volatile Organic Compounds (TVOC)
Detection Range	0 – 1000 ppm
Resolution	0.1 ppm
Sensor Packaging	ES4
Order No. (UART)	04-TB200B-ES4-TVOC-1000-01
Order No. (I²C)	04-TB200B-ES4-TVOC-1000-I2C-01
Operating Principle	Solid Polymer Electrochemical Sensing Technology
Accuracy	± 5% (measurement value)
Repeatability	1%
Linearity	Linear
Long-Term Drift	< 5% / year
Expected Lifetime	> 5 years
Output Signal	UART (TTL 3.3 V) or I²C digital signal
UART Parameters	Baud rate 9600, 8 data bits, 1 stop bit; VCC red / GND black / RX yellow / TX green
I²C Parameters	Frequency ≤ 20 kHz, signal voltage 3.3 V; VCC red / GND black / SDA yellow / SCL green
Communication Mode	Active-upload and question-answer modes; Q&A is the default on power-up
Built-in Temperature Sensor	-20 ℃ to +70 ℃, ± 0.2 ℃ (typical)
Built-in Humidity Sensor	0 – 100% RH, ± 2% (typical)
Working Temperature	-40 ℃ to +55 ℃
Working Humidity	15 – 95% RH (non-condensing)
Working Pressure	Atmospheric pressure ± 10%
Size (Including Sensor)	40 × 30 × 22.45 mm
Size (Without Sensor)	40 × 30 × 5.6 mm
Weight	< 25 g (including sensor)
Cable Length	100 mm, special length by request
Warranty	12 months from the date of shipment

Every module is professionally calibrated with standard gas before shipment, with the calibration data stored in its flash chip — plug-and-play, no secondary gas calibration required. Refer to the dat

TB200B-ES4-TVOC-200 — TB200B-ES4-TVOC-200 Volatile Organic Compounds (TVOC) Detection Module

The EC Sense TB200B-ES4-TVOC-200 is an industrial-safety-grade smart digital gas sensor module for Volatile Organic Compounds (TVOC) detection, with a 0 – 200 ppm range and 0.1 ppm resolution. The module uses the standard ES4 electrochemical sensor (40 × 30 × …

Target Gas	Volatile Organic Compounds (TVOC)
Detection Range	0 – 200 ppm
Resolution	0.1 ppm
Sensor Packaging	ES4
Order No. (UART)	04-TB200B-ES4-TVOC-200-01
Order No. (I²C)	04-TB200B-ES4-TVOC-200-I2C-01
Operating Principle	Solid Polymer Electrochemical Sensing Technology
Accuracy	± 5% (measurement value)
Repeatability	1%
Linearity	Linear
Long-Term Drift	< 5% / year
Expected Lifetime	> 5 years
Output Signal	UART (TTL 3.3 V) or I²C digital signal
UART Parameters	Baud rate 9600, 8 data bits, 1 stop bit; VCC red / GND black / RX yellow / TX green
I²C Parameters	Frequency ≤ 20 kHz, signal voltage 3.3 V; VCC red / GND black / SDA yellow / SCL green
Communication Mode	Active-upload and question-answer modes; Q&A is the default on power-up
Built-in Temperature Sensor	-20 ℃ to +70 ℃, ± 0.2 ℃ (typical)
Built-in Humidity Sensor	0 – 100% RH, ± 2% (typical)
Working Temperature	-40 ℃ to +55 ℃
Working Humidity	15 – 95% RH (non-condensing)
Working Pressure	Atmospheric pressure ± 10%
Size (Including Sensor)	40 × 30 × 22.45 mm
Size (Without Sensor)	40 × 30 × 5.6 mm
Weight	< 25 g (including sensor)
Cable Length	100 mm, special length by request
Warranty	12 months from the date of shipment

Every module is professionally calibrated with standard gas before shipment, with the calibration data stored in its flash chip — plug-and-play, no secondary gas calibration required. Refer to the dat

TB200B-ES4-TVOC-2000 — TB200B-ES4-TVOC-2000 Volatile Organic Compounds (TVOC) Detection Module

The EC Sense TB200B-ES4-TVOC-2000 is an industrial-safety-grade smart digital gas sensor module for Volatile Organic Compounds (TVOC) detection, with a 0 – 2000 ppm range and 0.1 ppm resolution. The module uses the standard ES4 electrochemical sensor (40 × 30 …

Target Gas	Volatile Organic Compounds (TVOC)
Detection Range	0 – 2000 ppm
Resolution	0.1 ppm
Sensor Packaging	ES4
Order No. (UART)	04-TB200B-ES4-TVOC-2000-01
Order No. (I²C)	04-TB200B-ES4-TVOC-2000-I2C-01
Operating Principle	Solid Polymer Electrochemical Sensing Technology
Accuracy	± 5% (measurement value)
Repeatability	1%
Linearity	Linear
Long-Term Drift	< 5% / year
Expected Lifetime	> 5 years
Output Signal	UART (TTL 3.3 V) or I²C digital signal
UART Parameters	Baud rate 9600, 8 data bits, 1 stop bit; VCC red / GND black / RX yellow / TX green
I²C Parameters	Frequency ≤ 20 kHz, signal voltage 3.3 V; VCC red / GND black / SDA yellow / SCL green
Communication Mode	Active-upload and question-answer modes; Q&A is the default on power-up
Built-in Temperature Sensor	-20 ℃ to +70 ℃, ± 0.2 ℃ (typical)
Built-in Humidity Sensor	0 – 100% RH, ± 2% (typical)
Working Temperature	-40 ℃ to +55 ℃
Working Humidity	15 – 95% RH (non-condensing)
Working Pressure	Atmospheric pressure ± 10%
Size (Including Sensor)	40 × 30 × 22.45 mm
Size (Without Sensor)	40 × 30 × 5.6 mm
Weight	< 25 g (including sensor)
Cable Length	100 mm, special length by request
Warranty	12 months from the date of shipment

Every module is professionally calibrated with standard gas before shipment, with the calibration data stored in its flash chip — plug-and-play, no secondary gas calibration required. Refer to the dat

TB200B-ES4-TVOC-500 — TB200B-ES4-TVOC-500 Volatile Organic Compounds (TVOC) Detection Module

The EC Sense TB200B-ES4-TVOC-500 is an industrial-safety-grade smart digital gas sensor module for Volatile Organic Compounds (TVOC) detection, with a 0 – 500 ppm range and 0.1 ppm resolution. The module uses the standard ES4 electrochemical sensor (40 × 30 × …

Target Gas	Volatile Organic Compounds (TVOC)
Detection Range	0 – 500 ppm
Resolution	0.1 ppm
Sensor Packaging	ES4
Order No. (UART)	04-TB200B-ES4-TVOC-500-01
Order No. (I²C)	04-TB200B-ES4-TVOC-500-I2C-01
Operating Principle	Solid Polymer Electrochemical Sensing Technology
Accuracy	± 5% (measurement value)
Repeatability	1%
Linearity	Linear
Long-Term Drift	< 5% / year
Expected Lifetime	> 5 years
Output Signal	UART (TTL 3.3 V) or I²C digital signal
UART Parameters	Baud rate 9600, 8 data bits, 1 stop bit; VCC red / GND black / RX yellow / TX green
I²C Parameters	Frequency ≤ 20 kHz, signal voltage 3.3 V; VCC red / GND black / SDA yellow / SCL green
Communication Mode	Active-upload and question-answer modes; Q&A is the default on power-up
Built-in Temperature Sensor	-20 ℃ to +70 ℃, ± 0.2 ℃ (typical)
Built-in Humidity Sensor	0 – 100% RH, ± 2% (typical)
Working Temperature	-40 ℃ to +55 ℃
Working Humidity	15 – 95% RH (non-condensing)
Working Pressure	Atmospheric pressure ± 10%
Size (Including Sensor)	40 × 30 × 22.45 mm
Size (Without Sensor)	40 × 30 × 5.6 mm
Weight	< 25 g (including sensor)
Cable Length	100 mm, special length by request
Warranty	12 months from the date of shipment

Every module is professionally calibrated with standard gas before shipment, with the calibration data stored in its flash chip — plug-and-play, no secondary gas calibration required. Refer to the dat