INFRARED GAS ANALYZER

DATA SHEET

ZPA

This gas analyzer (ZPA) is capable of measuring the concentration of NO,SO₂,CO₂,CO,CH₄ and O₂ components in sample gas. NO, SO₂, CO₂, CO and CH₄ are measured by non-dispersion infrared method (NDIR), while O₂ is measured by fuel cell or paramagnetic and zirconia method. Optimum use as an analyzer unit for measurement of combustion exhaust gas from refuse incinerators and boilers, or gas from various industrial furnaces.

FEATURES

1. High sensitivity

Equipped with the newest upgraded mass flow sensor. **2. Easy maintenance**

Maintenance is easy due to the simple measurement unit of single-beam system adapted.

3. Small and light

The size is small 133x483x382mm (HxWxD). (This is for 19inch rack mounting type) and light (11kg). The unit is capable of measuring up to 5 gas components in one analyzer.

4. Extensive functions

Various optional functions are available such as auto calibration control, atmospheric pressure correction, high and low concentration alarms, remote range switch, and range identification signal, etc.

5. User-friendly operation

Clear and easy-to-read display of all five gas concentrations at once.

Simple status and maintenance messages.

SPECIFICATIONS

Standard Specifications

Principle of measurement:

- NO, SO₂, CO₂, CO, CH₄;
 - Non-dispersion infrared-ray absorption method
 - Single light source and single beams (single beam system)
- O₂ ;Fuel cell O₂ analyzer (build-in) or paramagnetic O₂ analyzer (build-in) or zirconia O₂ analyzer (externally installed TYPE: ZFK7)



Measurable gas components and measuring range:

	Minimum range	Maximum range
NO	0 - 200ppm	0 - 5000ppm
SO ₂	0 - 200ppm	0 - 10vol%
CO ₂	0 - 100ppm	0 - 100vol%
CO	0 - 200ppm	0 - 100vol%
CH ₄	0 - 500ppm	0 - 100vol%
$ \begin{smallmatrix} O_2 \\ \left(\begin{array}{c} Built \ in \\ fuel \ cell \end{smallmatrix} \right) $	0 - 10vol%	0 - 25vol%
O ₂ (Built-in)	0 - 5vol%	0 - 100vol%
(Paramagnetic)	None	100 - 95vol%
O2 (External Zirconia	0 - 5vol%	0 - 25vol%

• Max. 5 components measurement including O₂.

For reverse range O_2 measurement, infrared gas measurement is not available (single range O_2 only).

- Measuring range ratio max. 1:10 (except O₂)
- Measuring ranges are changeable between the specified minimum and maximum range
 - Settable one range or two ranges
 - * In measurement range low range is called first range, high range is called second range.
- For possible combinations of components and ranges, refer to Table1.

Measured value indication:

Digital indication in 4 digits (LCD panel with LED back light)

- Instantaneous value of each component
- Instantaneous value after O₂ correction
- (only in NO, SO₂, CO measurement with O_2)
- Average value after O₂ correction (only in NO, SO₂, CO measurement with O₂)
- O2 average value

Analog output signals:

- 4 to 20mA DC or 0 to 1V DC, isolated internally from circuit and ground. Output lines are non-isolated each other.; 12 outputs max.
- Allowable load 550 Ω for 4 to 20mA DC Allowable load 100K Ω for 0 to 1V DC
- * Refer to Table2 for the channel No. of displayed values and analog output signals.

Analog input signal:

For signal input from externally installed O₂ analyzer.

- Signal requirement;
- Signal from Fuji's Zirconia O₂ analyzer (TYPE: ZFK7)
- (2) 0 to 1V DC from an O₂ analyzer Input section is not isolated. This feature is effective when an O₂ analyzer is not built in.
- * Externally installed O₂ analyzer should be purchased separately.

Digital output: (Option)

1c contact (24V DC/1A, resistive load) max.15 outputs

- Instrument error, calibration error, range identification, auto calibration status, solenoid valve drive for auto calibration, High/Low limit alarm contact output.
- * All relay contacts are isolated mutually and from the internal circuit.

Digital input: (Option)

Voltage contact (supply 12-24VDC (15mA Max.)) Max. 9 inputs

- Remote range change over, auto calibration remote start, remote hold, average value reset, Isolated from the internal circuit with photocoupler.
- Power supply:Voltage rating
Allowable range
Frequency; 100V to 240V AC
; 85V to 264V AC
; 50Hz/60Hz
Power consumption
; 100VA max.

Operation conditions:

Ambient temperature ;

−5°C to 45°C

(40°C max. when 2 optical system at 200V AC power source)

non-condensing

Ambient humidity ; 90% RH max.,

Storage conditions:

Ambient temperature ; -20°C to 60°C Ambient humidity ; 100% RH max., non-condensing

Dimensions $(H \times W \times D)$:

133 x 483 x 382mmMass:Approx. 11 kg max.Finish color:Front panel; Cool gray (PANTON 1C-F)Enclosure:Steel casing, for indoor useMaterial of gas-contacting parts:Gas inlet/outlet; SUS304Sample cell; SUS304, chloroprene rubberInformed ray transmitting window: CoE2

Infrared-ray transmitting window; CaF2 Internal piping;Toaron,Teflon, Polypropylene

Paramagnetic O₂ analyzer cell : SUS316 Fuel cell O₂ analyzer cell : ABS resin Gas inlet/outlet: Rc1/4 or NPT1/4 internal thread Purge gas flow rate: 1L/min (when required) Life time of fuel cell O₂ analyzer: 2 years

Standard Functions

Output signal holding:

	Output signals are held unchanged during manual and auto calibrations by activation of holding (turning "ON" its setting). The values held are those just before start calibration mode or setting value. Usage is selectable. Indication of instantaneous values will not be held.
Switch ranges:	The switch ranges function is available in manual, auto, and remote modes. Only preset switch method is effective.
Manual:	Allows range to switch by key operation.
Auto:	Automatically switched from first range to
	second range when the measured value exceeds 90%FS of first range.
	Automatically switched from second range
	to first range when the measured value drops to 80% or less first range.
Remote:	Voltage contact input
(Option)	Allows range to switch via an external signal when remote range switch input is received.
	When the contact input terminals for
	each component are input voltage, the
	first range is selected, and it is switched
	to the second range when the terminals are open.
* These s	witch range value are settable between
	range and second range values (low/high
iunge v	

Optional Functions

Remote output holding: Output signal is held at the last value or preset value by voltage input to the remote output holding input terminals. Holding is maintained while the voltage is input to the terminals. Indication of instantaneous values are not held. Range identification signal:

The present measuring range is identified by a contact position.

The contact output terminals close for each component when the first range is selected, and open when the second range is selected.

Auto calibration:

Auto calibration is carried out periodically at the preset cycle.

When a standard gas cylinder for calibration and a solenoid valve for opening/ closing the gas flow line are prepared externally by the customer, calibration will be carried out with the solenoid valve drive contacts for zero calibration and each span calibration turned on/off sequentially at the set auto calibration timing.

Auto cali	pration cycle setting:	Correction	n formula:
	Auto calibration cycle is set.		21-On
	Setting is variable within 1 to 99 hours		$C = \frac{21-On}{21-Os} \times Cs$
	(in increments of 1 hour) or 1 to 40 days (in increments of 1 day).		C : Sample gas concentration after O ₂
Gas flow	time setting:		correction
043 11000	The time for flowing each calibration gas		Cs : Measured concentration of sample
	in auto calibration is set.		gas
	Settable within 60 to 900 seconds (in		O_s : Measured O_2 concentration (Limit
	increments of 1 second)		setting: 1 to 20% O ₂)
Auto calibratio	n remote start:		O_n : Reference O_2 concentration
	Auto calibration starts by opening the auto		(value changeable by setting 0 to
	calibration remote start input terminal		19% O ₂)
	after short circuiting for 1.5 sec or longer.	Average value a	fter O ₂ correction and O ₂ average value
	Auto calibration starts when contacts	calculation:	
	open.		The result of O_2 correction or instan-
Auto zero calib			taneous O_2 value can be output as an
	Auto zero calibration is carried out periodi-		average value over the preset period of
	cally at the preset cycle.		time.
	This cycle is independent from "Auto		Moving average method is used. Sampling
	calibration" cycle.		interval is 30 seconds.
	When zero calibration gas and solenoid		(Output is updated every 30 seconds.
	valve for opening/closing the calibration		Update is the averaged value of the most
	gas flow line are prepared externally by		recent elapsed averaging time period.)
	the customer, zero calibration will be car- ried out at the set auto zero calibration		Averaging time period is settable within 1 to 59 minutes (in increments of 1 minute)
	timing.		or 1 to 4 hours (in increments of 1 hour).
Auto zero	calibration cycle setting:	Average value r	
71010 2010	Auto zero calibration cycle is set.		The above-mentioned output of average
	Setting is variable within 1 to 99 hours		value is started from the initial state by
	(in increments of 1 hour) or 1 to 40 days		opening the average value resetting input
	(in increments of 1 day)		terminals after short circuiting for 1.5 sec
Gas flow	time setting:		or longer.
	The timing for flowing zero gas in auto		Output is reset by input voltage and
	zero calibration is set.		restarted by opening the terminal circuit.
	Settable within 60 to 900 seconds (in	Communication	function:
	increments of 1 second)		RS-485 (9pins D-sub connector)
High/low limit			Half-duplex bit serial
	Alarm contact output turns on when		Start-stop synchronization
	measurement value reaches the preset		Modbus RTU™ protocol
	high or low limit alarm value.		Contents : Read/Write parameters
	Contacts close when the instantaneous		Read measurement concen-
	value of each channel exceeds the high alarm limit value or falls below the low		tration and instrument status
	alarm limit value or fails below the low alarm limit value.		Remark : When connecting via RS-
Instrument err			232C interface, an RS-232C ↔ RS-485 converter should
instrument ent	or contact output: Contacts turn on at occurrence of analyzer		be used.
	error No. 1, 2, 3 or 10.	Atmospheric pr	essure correction:
Calibration erro	or contact output:	Annospherie pi	Measure atmospheric pressure and cal-
oundration on t	Contacts turn on at occurrence of manual		culate compensation (for use, be sure to
	or auto calibration error (any of errors No.		relieve the exhaust gas from analyzer to
	4 to 9).		the atmosphere)
Auto calibratio	n status contact outputs:	After atm	ospheric pressure correction;
	Contacts turn on during auto calibration.		Zero point : No influenced
			Span point: The change is 0.5% measured
O ₂ correction:	Correction of measured NO, SO $_2$ and CO		value or less relating to the
	gas concentrations into values at refer-		change of the atmospheric
	ence O ₂ concentration.		pressure 1%.
			Correction range: 700hPa 1050hPa

pressure 1%. Correction range: 700hPa-1050hPa

Performance

Repeatability:	±0.5% of full scale
Linearity:	1% of full scale
	prior to atmospheric pressure correction
	(option)
Zero drift:	±2% of full scale/week
	In the case of Auto zero calibration use
	for 500ppm or less range.
Span drift:	±2% of full scale/week
Response time (for 90% FS response) :

1 to 15 sec electrical response. Within 10-30 seconds including replacement time of sampling gas. Gas replacement time depends on the

number of measuring components, and measuring range.

Interference from other gases:

Interference component	CO₂ analyzer	CO analyzer	CH₄ analyzer	SO₂ analyzer	NO analyzer
CO 1000ppm	≤1.0%FS	—	≤1.0%FS	≤1.0%FS	≤1.0%FS
CO2 15%	_	^{*1)} ≤1.0%FS	≤1.0%FS	≤1.0%FS	^{*2)} ≤1.0%FS
H ₂ O saturation at 20°C	≤1.0%FS	^{*2)} ≤1.0%FS	≤1.0%FS	_	
H ₂ O saturation at 2°C	-	≤2.0%FS	—	≤2.0%FS	≤2.0%FS
CH₄ 1000ppm	≤1.0%FS	≤1.0%FS		≤20ppm	

*1) 0-200ppm range \leq 2.0%FS

*2) 0-500ppm range or less \leq 2.0%FS

EC Directive Compliance

The product conforms to the requirements of the Low Voltage Directive 2006/95/EC and EMC directive 89/336/EEC (as amended by Directive 92/31/EEC), both as amended by Directive 93/68/EEC.

It conforms to following standards for product safety and electromagnetic compatibility;

EN61010-1:2010, EN62311:2008

Safety requirements for electrical equipment for measurement, control and laboratory use. "Installation Category II" "Pollution Degree 2"

EN61326-1:2006, EN61326-2-3:2006, EN61000-3-2:2006, A1:2009, A2:2009

EN61000-3-3:2008

Electrical equipment for measurement, control and laboratory use — EMC requirements.

CE

Requirements for Sample Gas

Flow rate: Temperature: Pressure:	0.5 ±0.2L / min 0 to 50°C 10 kPa or less (Gas outlet side should be open to the atmospheric air.)
Dust:	100 μ g/Nm ³ or less in particle size of 0.3 μ m or smaller
Mist:	Unallowable
Moisture:	For sample gases NO, SO ₂ , CO(0-200 ppm range): less than 2°C saturation point. For most other sample gases: less than standard room temperature saturation point.

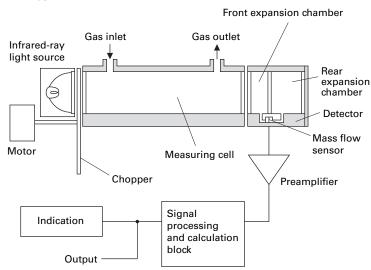
Corrosive component: 1 ppm or less Standard gas for calibration: 1) Infrared-ray measurable component, standard O₂ Zero gas ; Dry N₂ Span gas ; Each sample gas having concentration 90 to 100% of its measuring range (recommended). In case a zirconia O₂ analyzer is installed externally and calibration is carried out on the same calibration gas line: Zero gas ; Dry air or atmospheric air (Do not use with CO₂ measurement) Span gas ; For other than O₂ measurement, each sample gas hav-

- ment, each sample gas having concentration 90 to 100% of its measuring range For O₂ measurement, O₂ gas of 1 to 2 vol%/remains N₂ gas
- 2) Reverse range O2 measurement
 - Zero gas ; 100vol% O2
 - Span gas ; For O₂ measurement, O₂ gas of 95.0~95.5vol%/remains N₂ gas
 - *For reverse range O₂ measurement, infrared measurable component is not measurable.

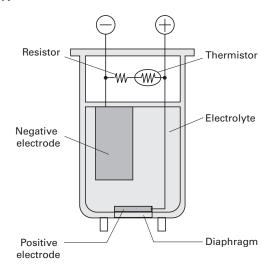
Installation Requirements

- Indoor use (Select a place where the equipment does not receive direct sunlight, draft/rain or radiation from hot substances. If such a place cannot be found, a roof or cover should be prepared for protection.)
- Avoid a place where unit receives heavy vibration
- Select a place where atmospheric air is clean

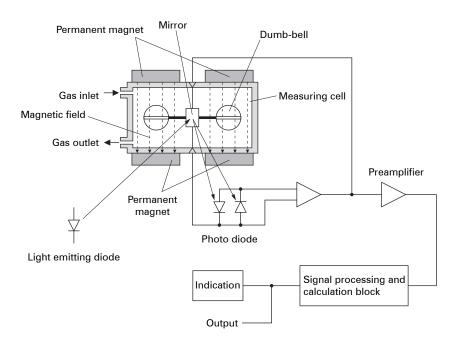
Principle diagram of NDIR type measurement (For NO, SO₂, CO₂, CO, CH₄)



Principle diagram of fuel cell type measurment (For O₂)

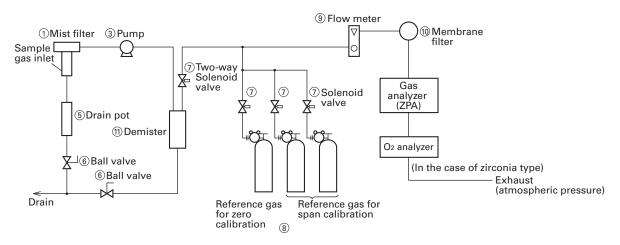


Principle diagram of paramagnetic type measurment (For O₂)

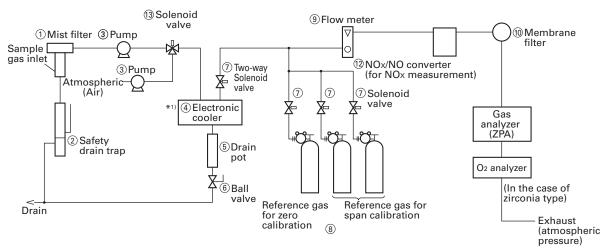


Examples of sampling system configuration including gas analyzer (for reference only)

To measure low moisture content (saturated at room temperature or lower) sample gas (CO, CO₂, CH₄)



To measure high moisture content sample gas, NO, SO₂, or CO (0 to 200 ppm range)



*1) Be sure to use a dehumidifier such as electronic cooler for NO, SO₂, and CO analyzers of 0 to 200 ppm range (≒2°C saturation or lower).

List of sampling devices (example)

No.	Device name	Fuji's type
1	Mist filter	ZBBK1V03-0
2	Safety drain trap	ZBH51603
3	Pump	ZBG80
4	Electoric cooler	ZBC91004
5	Drain pot	ZBH13003 (Length 255mm)
6	Ball valve	ZBFB1
$\overline{\mathcal{O}}$	Two-way solenoid valve	
8	Standard gas for calibration	ZBM Y04-0 (Codes in to be selected depending on application)
9	Flow meter	ZBD42203
10	Membrane filter	ZBBM2V03-0
(11)	Demister	ZBH35003
12	NO ₂ /NO converter	ZDL02001
13	Three-way solenoid valve	

Note) The above is a typical configuration example. As configuration may differ depending on measuring objects, please consult us.

CODE SYMBOLS

standard multi components

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ZPA

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	None		Y
	Pressure compensation		1
24	<unit></unit>		
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	mg/m³, g/m³	note8	В
25	<adjustment></adjustment>	note9	
	For standard		A
	For heat treatment furnace	note10	
	For converter		D
	Others		Z

RANGE CODE

Range	Code	Range	Code
None	Y	0~1vol%	J
0~100ppm	В	0~2vol%	K
0~200ppm	C	0~3vol%	0
0~250ppm	D	0~5vol%	L
0~300ppm	S	0~10vol%	M
0~500ppm	E	0~20vol%	N
0~1000ppm	F	0~25vol%	V
0~2000ppm	G	0~40vol%	W
0~2500ppm	U	0~50vol%	P
0~3000ppm	T	0~70vol%	X
0~5000ppm	н	0~100vol%	R
		Others	Z

O2 measurement range

Measurement range	Range code	Fuel cell O2 analyzer (built - in)	Paramagnet ic O2 analyzer (built - in)	Zirconia O2 analyzer (external)
0~5/10 vol%	А		0	0
0~5/25 vol%	В		0	0
0~10/25 vol%	С	0	0	0
0~5 vol%	L		0	0
0~10 vol%	Μ	0	0	0
0~25 vol%	V	0	0	0
0~50 vol%	Р		0	
0~100 vol%	R		Ó	
100~95 vol%	S		Ó	

note1)When "D" is specified at 4th digit, Power supply cord is supplied in the scope of supply. Cord specification should be specified at the 20th digit.

note2)When only O_2 measurement is necessary, "Y" should be specified at 6th digit.

- note3)When "1" is specified at 7th digit, O₂ pt analyzer signal has to be set as 0-1V DC linear corresponding to full scale. External zirconia O₂ analyzer and external O₂ analyzer are not included in the scope of supply, and has to be separately ordered.
- note4)Refer to Table 1 for possible combination of measuring components and ranges in this manual. When "Y" is specified at 6th digit, "Y" should be specified at 9th to 16th digit. For fuel cell O₂ analyzer, range is 0-10vol% or more.
- note5)Select the type of voltage rating, plug type and applicable standard of the power supply cord by 20th digit. Select a power supply cord for using at the location of end-user. When "A" is specified at 4th digit, Power supply cord will not be included in scope of delivery. When English is specified for display language, "E" should be selected at 20th digit. note6)O₂ correction is calculated only for NO, SO₂ and CO.

note7)When 5 components measurement is specified, "H" must not be specified at 22nd digit.

When 4 components measurement is specified and "H" is specified at 22nd digit, 3 points is maximum for alarm output function.

note8) When "B" is specified at 24th digit, measuring range should be specified by ppm range code. In this case NO, SO₂ and CO measuring range are corresponding range in mg/m³. Please refer to the table shown below for the corresponding range code based on "mg/m³".

note9) When A to D is specified at 25th digit, the analyzer will be adjusted and delivered with the following gasses. Standard "A": balance gas N₂.

For heat treatment furnace "C": balance gas 30vol% H₂/remaining N₂.

For converter "D": balance gas CO, CO₂.

When other adjustment is required, please specify "Z".

When "Z" is specified, please attach a list of gas composition contained in the measuring gas.

note10) When the 25th code is "C", the range code "X" and "R" are not available.

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Corresponding range in mg/m ³										
Range code	Unit : ppm	NO	SO ₂	CO						
В	0-100ppm	0-130mg/m ³	0-280mg/m ³	0-125mg/m ³						
С	0-200ppm	0-260mg/m ³	0-570mg/m ³	0-250mg/m ³						
D	0-250ppm	0-325mg/m ³	0-700mg/m ³	0-300mg/m ³						
S	0-300ppm	0-400mg/m ³	0-850mg/m ³	0-375mg/m ³						
Е	0-500ppm	0-650mg/m ³	0-1,400mg/m ³	0-600mg/m ³						
F	0-1,000ppm	0-1,300mg/m ³	0-2,800mg/m ³	0-1,250mg/m ³						
G	0-2,000ppm	0-2,600mg/m ³	0-5,600mg/m ³	0-2,500mg/m ³						
U	0-2,500ppm	0-3,300mg/m ³	0-7,100mg/m ³	0-3,000mg/m ³						
Т	0-3,000ppm	0-4,000mg/m ³	0-8,500mg/m ³	0-3,750mg/m ³						
Н	0-5,000ppm	0-6,600mg/m ³	0-14.00g/m ³	0-6,250mg/m ³						

Corresponding mg/m³

The conversion formula "ppm" unit into "mg/m³" unit. NO (mg/m³) = $1.34 \times NO$ (ppm) SO₂ (mg/m³) = $2.86 \times SO_2$ (ppm) CO (mg/m³) = $1.25 \times CO$ (ppm)

Table 1 Measurable component and range - availability check table -

Procedure of range selection

On one component analyzer:

First determine 1st range, then select 2nd range from the corresponding right column. More than two components analyzer:

The 2nd range in the tables for two and more components is maximum available range. Select the 2nd range less than or equal to the "2nd range (max)".

1-component analyzer : CO

1st range 2nd range 0 - 200ppm None, 0 - 250ppm,300ppm,500ppm,1000ppm,2000ppm 0 - 250ppm None, 0 - 300ppm,500ppm,1000ppm,2500ppm 0 - 300ppm None, 0 - 500ppm,1000ppm,2500ppm,2500ppm 0 - 500ppm None, 0 - 1000ppm,2000ppm,2500ppm,3000ppm,5000ppm 0 - 500ppm None, 0 - 2000ppm,2500ppm,3000ppm,5000ppm,1% 0 - 2000ppm None, 0 - 2500ppm,3000ppm,5000ppm,1%,2% 0 - 2000ppm None, 0 - 2500ppm,3000ppm,5000ppm,1%,2% 0 - 2500ppm None, 0 - 3000ppm,5000ppm,1%,2% 0 - 2500ppm None, 0 - 5000ppm,1%,2% 0 - 5000ppm None, 0 - 1%,2%,3%,5% 0 - 11% None, 0 - 2%,3%,5%,10% 0 - 22% None, 0 - 2%,3%,5%,10% 0 - 23% None, 0 - 5%,10%,20%,25% 0 - 55% None, 0 - 10%,20%,25%,40%,50%,70%,100% 0 - 50% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 25% None, 0 - 25%,40%,50%,70%,100% 0 - 25% None, 0 - 50%,70%,100% 0 - 25% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 100%	i compone				
0 - 250ppm None, 0 - 300ppm,500ppm,1000ppm,2000ppm,2500ppm 0 - 300ppm None, 0 - 500ppm,1000ppm,2500ppm,2500ppm 0 - 500ppm None, 0 - 1000ppm,2000ppm,2500ppm,3000ppm,5000ppm 0 - 1000ppm None, 0 - 2000ppm,2500ppm,3000ppm,5000ppm,1% 0 - 2000ppm None, 0 - 2500ppm,3000ppm,5000ppm,1% 0 - 2000ppm None, 0 - 2500ppm,3000ppm,5000ppm,1%,2% 0 - 2500ppm None, 0 - 3000ppm,5000ppm,1%,2% 0 - 3000ppm None, 0 - 5000ppm,1%,2% 0 - 5000ppm None, 0 - 1%,2%,3%,5% 0 - 10% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 2%,3%,5%,10% 0 - 3% None, 0 - 5%,10%,20% 0 - 3% None, 0 - 5%,10%,20% 0 - 5% None, 0 - 10%,20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 25%,40%,50%,70%,100% 0 - 25% None, 0 - 50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 50% None, 0 - 70%,100%	1st range	2nd range			
0 - 300ppm None, 0 - 500ppm,1000ppm,2000ppm,2500ppm 0 - 500ppm None, 0 - 1000ppm,2000ppm,2500ppm,3000ppm,5000ppm 0 - 1000ppm None, 0 - 2000ppm,2500ppm,3000ppm,5000ppm,1% 0 - 2000ppm None, 0 - 2500ppm,3000ppm,5000ppm,1%,2% 0 - 2500ppm None, 0 - 3000ppm,5000ppm,1%,2% 0 - 2500ppm None, 0 - 3000ppm,1%,2% 0 - 3000ppm None, 0 - 5000ppm,1%,2% 0 - 5000ppm None, 0 - 1%,2%,3%,5% 0 - 10% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 3%,5%,10%,20% 0 - 3% None, 0 - 5%,10%,20%,25% 0 - 5% None, 0 - 10%,20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 25% None, 0 - 40%,50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 50% None, 0 - 70%,100%	0 - 200ppm	None, 0 - 250ppm,300ppm,500ppm,1000ppm,2000ppm			
0 - 500ppm None, 0 - 1000ppm,2000ppm,2500ppm,3000ppm,5000ppm 0 - 1000ppm None, 0 - 2000ppm,2500ppm,3000ppm,5000ppm,1% 0 - 2000ppm None, 0 - 2500ppm,3000ppm,5000ppm,1%,2% 0 - 2500ppm None, 0 - 3000ppm,5000ppm,1%,2% 0 - 3000ppm None, 0 - 5000ppm,1%,2% 0 - 5000ppm None, 0 - 1%,2%,3%,5% 0 - 11% None, 0 - 2%,3%,5%,10% 0 - 22% None, 0 - 2%,3%,5%,10% 0 - 23% None, 0 - 2%,3%,5%,10% 0 - 33% None, 0 - 5%,10%,20% 0 - 55% None, 0 - 5%,10%,20%,25% 0 - 50% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 25% None, 0 - 25%,40%,50%,70%,100% 0 - 25% None, 0 - 50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 50% None, 0 - 100%	0 - 250ppm	None, 0 - 300ppm,500ppm,1000ppm,2000ppm,2500ppm			
0 - 1000ppm None, 0 - 2000ppm,2500ppm,3000ppm,5000ppm,1% 0 - 2000ppm None, 0 - 2500ppm,3000ppm,5000ppm,1%,2% 0 - 2500ppm None, 0 - 3000ppm,5000ppm,1%,2% 0 - 3000ppm None, 0 - 5000ppm,1%,2% 0 - 5000ppm None, 0 - 5000ppm,1%,2% 0 - 5000ppm None, 0 - 1%,2%,3%,5% 0 - 1% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 2%,3%,5%,10%,20% 0 - 3% None, 0 - 5%,10%,20% 0 - 5% None, 0 - 5%,10%,20%,25% 0 - 5% None, 0 - 10%,20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 25% None, 0 - 40%,50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 50% None, 0 - 70%,100%	0 - 300ppm	None, 0 - 500ppm,1000ppm,2000ppm,2500ppm			
0 - 2000ppm None, 0 - 2500ppm,3000ppm,5000ppm,1%,2% 0 - 2500ppm None, 0 - 3000ppm,5000ppm,1%,2% 0 - 3000ppm None, 0 - 5000ppm,1%,2% 0 - 5000ppm None, 0 - 1%,2%,3%,5% 0 - 1% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 2%,3%,5%,10% 0 - 3% None, 0 - 3%,5%,10%,20% 0 - 3% None, 0 - 5%,10%,20%,25% 0 - 5% None, 0 - 10%,20%,25%,40%,50%,70%,100% 0 - 10% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 25% None, 0 - 40%,50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 50% None, 0 - 70%,100% 0 - 70% None, 0 - 100%	0 - 500ppm	None, 0 - 1000ppm,2000ppm,2500ppm,3000ppm,5000ppm			
0 - 2500ppm None, 0 - 3000ppm,5000ppm,1%,2% 0 - 3000ppm None, 0 - 5000ppm,1%,2% 0 - 5000ppm None, 0 - 1%,2%,3%,5% 0 - 1% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 3%,5%,10%,20% 0 - 3% None, 0 - 3%,5%,10%,20% 0 - 3% None, 0 - 5%,10%,20%,25% 0 - 5% None, 0 - 10%,20%,25%,40%,50%,70%,100% 0 - 10% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 25%,40%,50%,70%,100% 0 - 25% None, 0 - 40%,50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 50% None, 0 - 70%,100% 0 - 70% None, 0 - 100%	0 - 1000ppm	None, 0 - 2000ppm,2500ppm,3000ppm,5000ppm,1%			
0 - 3000ppm None, 0 - 5000ppm,1%,2% 0 - 5000ppm None, 0 - 1%,2%,3%,5% 0 - 1% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 3%,5%,10%,20% 0 - 3% None, 0 - 5%,10%,20%,25% 0 - 5% None, 0 - 10%,20%,25%,40%,50% 0 - 10% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 25% None, 0 - 40%,50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 50% None, 0 - 70%,100% 0 - 70% None, 0 - 100%	0 - 2000ppm	None, 0 - 2500ppm,3000ppm,5000ppm,1%,2%			
0 - 5000ppm None, 0 - 1%,2%,3%,5% 0 - 1% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 3%,5%,10%,20% 0 - 3% None, 0 - 3%,5%,10%,20% 0 - 3% None, 0 - 5%,10%,20%,25% 0 - 5% None, 0 - 10%,20%,25%,40%,50% 0 - 10% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 25%,40%,50%,70%,100% 0 - 25% None, 0 - 40%,50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 70% None, 0 - 100%	0 - 2500ppm	None, 0 - 3000ppm,5000ppm,1%,2%			
0 - 1% None, 0 - 2%,3%,5%,10% 0 - 2% None, 0 - 3%,5%,10%,20% 0 - 3% None, 0 - 5%,10%,20%,25% 0 - 5% None, 0 - 10%,20%,25%,40%,50% 0 - 10% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 25% None, 0 - 25%,40%,50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 50% None, 0 - 70%,100% 0 - 70% None, 0 - 100%	0 - 3000ppm	None, 0 - 5000ppm,1%,2%			
0 - 2% None, 0 - 3%,5%,10%,20% 0 - 3% None, 0 - 5%,10%,20%,25% 0 - 5% None, 0 - 10%,20%,25%,40%,50% 0 - 10% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 25% None, 0 - 25%,40%,50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 50% None, 0 - 70%,100% 0 - 70% None, 0 - 100%	0 - 5000ppm	None, 0 - 1%,2%,3%,5%			
0 - 3% None, 0 - 5%, 10%, 20%, 25% 0 - 5% None, 0 - 10%, 20%, 25%, 40%, 50% 0 - 10% None, 0 - 20%, 25%, 40%, 50%, 70%, 100% 0 - 20% None, 0 - 25%, 40%, 50%, 70%, 100% 0 - 25% None, 0 - 40%, 50%, 70%, 100% 0 - 40% None, 0 - 50%, 70%, 100% 0 - 50% None, 0 - 70%, 100% 0 - 50% None, 0 - 70%, 100% 0 - 70% None, 0 - 100%	0 - 1%	None, 0 - 2%,3%,5%,10%			
0 - 5% None, 0 - 10%, 20%, 25%, 40%, 50% 0 - 10% None, 0 - 20%, 25%, 40%, 50%, 70%, 100% 0 - 20% None, 0 - 25%, 40%, 50%, 70%, 100% 0 - 25% None, 0 - 40%, 50%, 70%, 100% 0 - 40% None, 0 - 50%, 70%, 100% 0 - 50% None, 0 - 70%, 100% 0 - 50% None, 0 - 70%, 100% 0 - 70% None, 0 - 100%	0 - 2%	None, 0 - 3%,5%,10%,20%			
0 - 10% None, 0 - 20%,25%,40%,50%,70%,100% 0 - 20% None, 0 - 25%,40%,50%,70%,100% 0 - 25% None, 0 - 40%,50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 70% None, 0 - 100%	0 - 3%	None, 0 - 5%,10%,20%,25%			
0 - 20% None, 0 - 25%,40%,50%,70%,100% 0 - 25% None, 0 - 40%,50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 50% None, 0 - 70%,100% 0 - 70% None, 0 - 100%	0 - 5%	None, 0 - 10%,20%,25%,40%,50%			
0 - 25% None, 0 - 40%,50%,70%,100% 0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 70% None, 0 - 100%	0 - 10%	None, 0 - 20%,25%,40%,50%,70%,100%			
0 - 40% None, 0 - 50%,70%,100% 0 - 50% None, 0 - 70%,100% 0 - 70% None, 0 - 100%	0 - 20%	None, 0 - 25%,40%,50%,70%,100%			
0 - 50% None, 0 - 70%,100% 0 - 70% None, 0 - 100%	0 - 25%	None, 0 - 40%,50%,70%,100%			
0 - 70% None, 0 - 100%	0 - 40%	None, 0 - 50%,70%,100%			
	0 - 50%	None, 0 - 70%,100%			
0 - 100% None	0 - 70%	None, 0 - 100%			
	0 - 100%	None			

1-component analyzer : CO2

1st range	2nd range
0 - 100ppm	None, 0 - 200ppm,250ppm,300ppm,500ppm,1000ppm
0 - 200ppm	None, 0 - 250ppm,300ppm,500ppm,1000ppm,2000ppm
0 - 250ppm	None, 0 - 300ppm,500ppm,1000ppm,2000ppm,2500ppm
0 - 300ppm	None, 0 - 500ppm,1000ppm,2000ppm,2500ppm
0 - 500ppm	None, 0 - 1000ppm,2000ppm,2500ppm,3000ppm,5000ppm
0 - 1000ppm	None, 0 - 2000ppm,2500ppm,3000ppm,5000ppm,1%
0 - 2000ppm	None, 0 - 2500ppm,3000ppm,5000ppm,1%,2%
0 - 2500ppm	None, 0 - 3000ppm,5000ppm,1%,2%
0 - 3000ppm	None, 0 - 5000ppm,1%,2%
0 - 5000ppm	None, 0 - 1%,2%,3%,5%
0 - 1%	None, 0 - 2%,3%,5%,10%
0 - 2%	None, 0 - 3%,5%,10%,20%
0 - 3%	None, 0 - 5%,10%,20%,25%
0 - 5%	None, 0 - 10%,20%,25%,40%,50%
0 - 10%	None, 0 - 20%,25%,40%,50%,70%,100%
0 - 20%	None, 0 - 25%,40%,50%,70%,100%
0 - 25%	None, 0 - 40%,50%,70%,100%
0 - 40%	None, 0 - 50%,70%,100%
0 - 50%	None, 0 - 70%,100%
0 - 70%	None, 0 - 100%
0 - 100%	None

2-component analyzer : NO/SO2

1-component	t : NO		l
1st range	2nd range (max.)		l
0 - 200ppm	0 - 2000ppm	(l
0 - 250ppm	0 - 2500ppm		
0 - 300ppm	0 - 2500ppm		
0 - 500ppm	0 - 5000ppm		l
0 - 1000ppm	0 - 5000ppm	→	
0 - 2000ppm	0 - 5000ppm		
0 - 2500ppm	0 - 5000ppm		
0 - 3000ppm	0 - 5000ppm		
0 - 5000ppm	None		Í

		0 - 300ppm	0 - 2500ppm
		0 - 500ppm	0 - 5000ppm
>≺		0 - 1000ppm	0 - 5000ppm
		0 - 2000ppm	0 - 5000ppm
		0 - 2500ppm	0 - 5000ppm
		0 - 3000ppm	0 - 5000ppm
	U	0 - 5000ppm	None

 2-component : SO2

 1st range
 2nd range (max.)

 0 - 200ppm
 0 - 2000ppm

 0 - 2500ppm
 0 - 2500ppm

• The 2nd component should be selected as shown in the right table.

1-component analyzer : NO

1-compone	nt analyzer : NO
1st range	2nd range
0 - 200ppm	None, 0 - 250ppm,300ppm,500ppm,1000ppm,2000ppm
0 - 250ppm	None, 0 - 300ppm,500ppm,1000ppm,2000ppm,2500ppm
0 - 300ppm	None, 0 - 500ppm,1000ppm,2000ppm,2500ppm
0 - 500ppm	None, 0 - 1000ppm,2000ppm,2500ppm,3000ppm,5000ppm
0 - 1000ppm	None, 0 - 2000ppm,2500ppm,3000ppm,5000ppm
0 - 2000ppm	None, 0 - 2500ppm,3000ppm,5000ppm
0 - 2500ppm	None, 0 - 3000ppm,5000ppm
0 - 3000ppm	None, 0 - 5000ppm
0 - 5000ppm	None
1-compone	nt analyzer : SO2
1st range	2nd range
0 - 200ppm	None, 0 - 250ppm,300ppm,500ppm,1000ppm,2000ppm
0 - 250ppm	None, 0 - 300ppm,500ppm,1000ppm,2000ppm,2500ppm
0 - 300ppm	None, 0 - 500ppm,1000ppm,2000ppm,2500ppm
0 - 500ppm 0 - 500ppm	None, 0 - 1000ppm,2000ppm,2500ppm,3000ppm,5000ppm
0 - 1000ppm	None, 0 - 2000ppm,2500ppm,3000ppm,5000ppm,1%
0 - 2000ppm	None, 0 - 2500ppm,3000ppm,5000ppm,1%,2%
0 - 2500ppm	None, 0 - 3000ppm,5000ppm,1%,2%
0 - 3000ppm	None, 0 - 5000ppm,1%,2%
0 - 5000ppm	None, 0 - 1%,2%,3%,5%
0 - 1%	None, 0 - 2%,3%,5%,10%
0 - 2%	None, 0 - 3%,5%,10%
0 - 3%	None, 0 - 10%
0 - 5%	None, 0 - 10%
0 - 10%	None
1-compone	nt analyzer : CH4
1st range	2nd range
0 - 500ppm	None, 0 - 1000ppm,2000ppm,2500ppm,3000ppm,5000ppm
0 - 1000ppm	None, 0 - 2000ppm,2500ppm,3000ppm,5000ppm,1%
0 - 2000ppm	None, 0 - 2500ppm,3000ppm,5000ppm,1%,2%
0 - 2500ppm	None, 0 - 3000ppm,5000ppm,1%,2%
0 - 3000ppm	None, 0 - 5000ppm,1%,2%
0 - 5000ppm	None, 0 - 1%,2%,3%,5%
0 - 1%	None, 0 - 2%,3%,5%,10%
0 - 2%	None, 0 - 3%,5%,10%,20%
0 - 3%	None, 0 - 5%,10%,20%,25%
0 - 5%	None, 0 - 10%,20%,25%,40%,50%
0 - 10%	None, 0 - 20%,25%,40%,50%,70%,100%
0 - 20%	None, 0 - 25%,40%,50%,70%,100%
0 - 25%	None, 0 - 40%,50%,70%,100%
0 - 40%	None, 0 - 50%,70%,100%
0 - 50%	None, 0 - 70%,100%
0 - 70%	None, 0 - 100%
0 - 70%	

2-component analyzer : NO/CO

0 - 100% None

1-componen	t : NO		2-componen	t : CO
1st range	2nd range (max.)		1st range	2nd range (max.)
0 - 200ppm	0 - 2000ppm		0 - 200ppm	0 - 2000ppm
0 - 250ppm	0 - 2500ppm		0 - 250ppm	0 - 2500ppm
0 - 300ppm	0 - 2500ppm		0 - 300ppm	0 - 2500ppm
0 - 500ppm	0 - 5000ppm		0 - 500ppm	0 - 5000ppm
0 - 1000ppm	0 - 5000ppm]≻{	0 - 1000ppm	0 - 5000ppm
0 - 2000ppm	0 - 5000ppm		0 - 2000ppm	0 - 5000ppm
0 - 2500ppm	0 - 5000ppm		0 - 2500ppm	0 - 5000ppm
0 - 3000ppm	0 - 5000ppm		0 - 3000ppm	0 - 5000ppm
0 - 5000ppm	None		0 - 5000ppm	None

• The 2nd component should be selected as shown in the right table.

2-component analyzer: CO2/CO

2-componer	nt analyzer: CO	12/CO
1-componer	nt: CO2	2-component: CO
1st range	2nd range (max.)	1st range/2nd range (max.)
0-100ppm	0-1000ppm	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-500/2500ppm, 0-1000/2500ppm, 0-2000/2500ppm, 0-2500ppm
0-200ppm	0-2000ppm	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-500/5000ppm, 0-1000/5000ppm, 0-2000/5000ppm, 0-2500/5000ppm, 0-3000ppm/2%, 0-5000ppm/3%, 0-1/3%, 0-2/3%,
0-250ppm	0-2500ppm	0-3%
0-300ppm		
0-500ppm	7	
)-500ppm	0-5000ppm	0-500/5000ppm, 0-1000/5000ppm, 0-2000/5000ppm, 0-2500/5000ppm, 0-3000ppm/2%, 0-5000ppm/3%, 0-1/3%, 0-2/3%, 0-3%
0-1000ppm	0-5000ppm	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/10%,
0-2000ppm	1	0-3/10%, 0-5/50%, 0-10/50%, 0-20/50%, 0-25/50%, 0-40/50%, 0-50%
0-1000ppm	0-1%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/10%, 0-3/10%, 0-5/50%, 0-10/50%, 0-20/50%, 0-40/50%, 0-50%
)-2000ppm	0-1%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/10%, 0-3/25%, 0-5/50%, 0-10/50%, 0-20/50%, 0-40/50%, 0-50%
0-2000ppm	0-2%	0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/10%, 0-3/25%, 0-5/50%, 0-10/50%, 0-20/50%, 0-20/50%, 0-40/50%, 0-50%
0-2500ppm	0-1%	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/10%,
		0-3/25%, 0-5/50%, 0-10/50%, 0-20/50%, 0-40/50%, 0-50%
0-2500ppm	0-2%	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/10%, 0-3/25%, 0-5/50%, 0-10/50%,
		0-20/50%, 0-25/50%, 0-40/50%, 0-50%
0-3000ppm	0-1%	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/10%,
e eeeeppin	0.70	0-3/25%, 0-5/50%, 0-10/100%, 0-20/100%, 0-20/100%, 0-50/100%, 0-70/100%, 0-100%
0-3000ppm	0-2%	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/10%, 0-3/25%, 0-5/25%,
		0-10/100%.0-20/100%. 0-25/100%. 0-40/100%. 0-50/100%. 0-100%
0-5000ppm	0-3%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-5000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/100%, 0-20/100%,
0-1%	0-5%	0-25/100%, 0-40/100%, 0-50/100%, 0-100%
0-2%	0-5%	
0-5000ppm	0-5%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/50%, 0-20/100%,
o ooooppiii	0 0 /0	C-25/100%, -04/100%, C-070/100%, O-100%
0-1%	0-10%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/1%, 0-200ppm/1%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/25%, 0-10/100%, 0-20/100%,
	0.070	0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%
0-2%	0-20%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/50%, 0-20/100%,
0 2,0	0 20/0	0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%
)-2%	0-10%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/100%, 0-20/100%,
)-3%	0-25%	0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100%
)-5%	0-50%	
)-10%	0-100%	0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%,
)-20%		G 1000phin 178, 0-2200phin 178, 0-2300phin 178, 0-2300phin 278, 0-3000phin 37, 0-1778, 0-22078, 0-3207
)-20 <i>%</i>)-25%	-	
0-25% 0-40%	-	
0-40% 0-50%	-	
0-50% 0-70%	-	
	News	
0-100%	None	

2-component analyzer: CH4/CO

1-component: U+a 2-component: C0 9508pm 95008pm 95008ppm 95008p	2-componen	2-component analyzer: CH4/CO					
0.5000pm 0.200200pm, 0.200200pm, 2.502200ppm, 0.5002200ppm, 0.50002500ppm, 0.20005000ppm, 0.2000500ppm, 0.20005000ppm, 0.2000500ppm, 0.20005000ppm, 0.2000500ppm, 0.20005000ppm, 0.2000500ppm, 0.2000500ppm, 0.2000500ppm, 0.200050ppm, 0.200050ppm, 0.50000ppm, 0.500000ppm, 0.500000ppm, 0.50000ppm, 0.500000ppm, 0.50000ppm, 0.50000pp	1-componen	t: CH4	2-component: CO				
0:1000pm 0:200200pm, 0:2002200pm, 0:2002500pm, 0:2005000pm, 0:2005000pm, 0:2005000pm, 0:2005000pm, 0:2005000pm, 0:2005000pm 0:1000pm 0:200200pm, 0:2502500pm, 0:2005000pm, 0:2005000ppm, 0:2005000ppm, 0:2005000pm 0:2000pm 0:200200pm, 0:2502500pm, 0:2005000pm, 0:2005000ppm, 0:1000ppm1%, 0:2000ppm1%, 0:2000p, 0:25%, 0:25%, 0:100%, 0:25%, 0:25%, 0:100%, 0:20100%, 0:25%, 0:25%, 0:100%, 0:20100%, 0:25%, 0:25%, 0:1000%, 0:20100%, 0:25%, 0:25%, 0:1000%, 0:25%, 0:550%, 0:10100%, 0:20100%,	1st range	2nd range (max.)	1st range/2nd range (max.)				
0:1000pm 0:200200pm, 0:2002200pm, 0:2002500pm, 0:2005000pm, 0:2005000pm, 0:2005000pm, 0:2005000pm, 0:2005000pm, 0:2005000pm 0:1000pm 0:200200pm, 0:2502500pm, 0:2005000pm, 0:2005000ppm, 0:2005000ppm, 0:2005000pm 0:2000pm 0:200200pm, 0:2502500pm, 0:2005000pm, 0:2005000ppm, 0:1000ppm1%, 0:2000ppm1%, 0:2000p, 0:25%, 0:25%, 0:100%, 0:25%, 0:25%, 0:100%, 0:20100%, 0:25%, 0:25%, 0:100%, 0:20100%, 0:25%, 0:25%, 0:1000%, 0:20100%, 0:25%, 0:25%, 0:1000%, 0:25%, 0:550%, 0:10100%, 0:20100%,	0-500ppm	0-5000ppm	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-500/2500ppm, 0-1000/2500ppm, 0-2000/2500ppm				
0.2000ppm 0.2002000pm, 0.2002500pm, 0.2002500pm, 0.2002500pm, 0.1000ppm1%, 0.2000ppm1%, 0.2000p	0-1000ppm	0-5000ppm					
Chr 0.320%, b.1020% 0.1020% 0.1000ppm 15%, 0.102% 0.1000ppm1%, 0.2000ppm1%, 0.2300ppm1%, 0.100%, 0.235%, 0.550%, 0.1010%, 0.2010%, 0.2510%, 0.4300%, 0.2510%, 0.4300%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%,	0-1000ppm	0-1%	0-500/5000ppm, 0-1000/5000ppm, 0-2000/5000ppm, 0-2500/5000ppm, 0-3000/5000ppm				
Chr 0.320%, b.1020% 0.1020% 0.1000ppm 15%, 0.102% 0.1000ppm1%, 0.2000ppm1%, 0.2300ppm1%, 0.100%, 0.235%, 0.550%, 0.1010%, 0.2010%, 0.2510%, 0.4300%, 0.2510%, 0.4300%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%, 0.40100%, 0.25100%,	0-2000ppm	0-5000ppm	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/1%, 0-2500pppm/1%, 0-3000ppm/1%, 0-5000ppm/5%, 0-1/5%, 0-2/20%,				
03000pm 04000pm1%, 0-105%, 0-325%, 0-525%, 0-1025% 02000pm 0-1% 0-50000pm, 0-10000pm1%, 0-2000pm1%, 0-2000pm1%, 0-5000ppm5%, 0-105%, 0-220%, 0-322%, 0-522%, 0-1025% 0-2800ppm 0-1% 0-50000ppm, 0-10000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-5000ppm5%, 0-115%, 0-220%, 0-322%, 0-522%, 0-1025% 0-2800ppm 0-1% 0-5000ppm, 0-1000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-5000ppm5%, 0-115%, 0-220%, 0-325%, 0-562%, 0-1025% 0-3000ppm 0-2% 0-1000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-3000ppm1%, 0-5000ppm5%, 0-115%, 0-220%, 0-325%, 0-562%, 0-1055%, 0-0455%, 0-2555, 0-4055%, 0-555%, 0-1055%, 0-2555, 0-4055%, 0-555%, 0-1055%, 0-2555, 0-4055%, 0-555%, 0-1055%, 0-2556, 0-555%, 0-1055%, 0-2556, 0-4055%, 0-555%, 0-1055%, 0-2556, 0-555%, 0-1055%, 0-2556, 0-555%, 0-1055%, 0-2556, 0-555%, 0-555%, 0-555%, 0-555%, 0-555%, 0-555%, 0-555%, 0-555%, 0-2556, 0-555%, 0-10105%, 0-20105%, 0-25550%, 0-10105%, 0-20105%, 0-25550, 0-2555%, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-20105%, 0-20105%, 0-20105%, 0-20105%, 0-20105%, 0-20105%, 0-22550, 0-5555%, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-20105%, 0-22550, 0-5555%, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-25550, 0-10105%, 0-20105%, 0-25550, 0-101005%, 0-20105%, 0-255500, 0-10105%, 0-20105%, 0-25			0-3/20%, 0-5/20%, 0-10/20%				
02000pm 1% 0-5000500ppm, 0-1000ppm1%, 0-2000ppm1%, 0-2300ppm1%, 0-3000ppm1%, 0-15%, 0-220%, 0-325%, 0-525%, 0-1025% 02300ppm 0-1% 0-50015000ppm, 0-1000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-5000ppm1%, 0-15%, 0-220%, 0-325%, 0-525%, 0-1025% 0-2300ppm 0-1000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-5000ppm1%, 0-15%, 0-220%, 0-320%, 0-520%, 0-1025% 0-2300ppm 0-1000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-5000ppm1%, 0-15%, 0-220%, 0-325%, 0-556%, 0-105%, 0-255%, 0-1000pm1%, 0-1000ppm1%, 0-10%, 0-2000ppm1%, 0-10%, 0-2000ppm1%, 0-10%, 0-2000ppm1%, 0-10%, 0-2000ppm1%, 0-2000ppm1%, 0-10%, 0-2000ppm1%, 0-10%, 0-2000ppm1%, 0-10%, 0-2000ppm1%, 0-10%, 0-2010%,	0-2500ppm	0-5000ppm	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1% 0-3000ppm/1%,				
0.2500pm 0.3000pm 0.2% 0.1% 0.500500pp, 0.2000ppm1%, 0.2000ppm1%, 0.2500ppm1%, 0.5000ppm5%, 0.15%, 0.220%, 0.325%, 0.525%, 0.1025% 0.3000ppm 0.2% 0.1000ppm1%, 0.2000ppm1%, 0.2000ppm1%, 0.3000ppm1%, 0.5000ppm5%, 0.15%, 0.220%, 0.325%, 0.552%, 0.1025% 0.3000ppm 0.2% 0.1000ppm1%, 0.2000ppm1%, 0.2000ppm1%, 0.3000ppm1%, 0.5000ppm5%, 0.15%, 0.220%, 0.325%, 0.556%, 0.105%, 0.205%, 0.55000pp 0.5000ppm 0.1% 0.500500ppm, 0.1000ppm1%, 0.2000ppm1%, 0.2500ppm1%, 0.5000ppm5%, 0.15%, 0.205%, 0.556%, 0.4055\%, 0.4055\%, 0.4055\%, 0.4055\%, 0.4055\%, 0.4055\%, 0.4055\%, 0.4055\%, 0.4055\%, 0.4055\%, 0.4055\%, 0.4055\%, 0.4055\%, 0.4055\%,	0-3000ppm		0-5000ppm/5%, 0-1/5%, 0-2/20%, 0-3/25%, 0-5/25%, 0-10/25%				
03000pm Carter of the standard stan	0-2000ppm	0-1%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/1%, 0-5000ppm/5%, 0-1/5%, 0-2/20%, 0-3/20%, 0-5/20%, 0-10/20%				
02000pm 0.2% 0.1000ppm1%, 0.2800ppm1%, 0.2800ppm1%, 0.4800ppm1%, 0.4800ppm1%, 0.415%, 0.212%, 0.322%, 0.422%, 0.402% 0.2500ppm 0.2% 0.4000ppm1%, 0.28000ppm1%, 0.2800ppm1%, 0.5000ppm1%, 0.5000ppm5%, 0.15%, 0.212%, 0.325%, 0.405%, 0.405%, 0.205%, 0.405%, 0.205%, 0.405%, 0.205%, 0.4000%, 0.40000%, 0.4000%, 0.40000%, 0.4000%, 0.4000%, 0.40000%,	0-2500ppm	0-1%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/1%, 0-5000ppm/5%, 0-1/5%, 0-2/20%, 0-3/25%, 0-5/25%, 0-10/25%				
0.2500pm 0-3000ppm 0-2% 0-1000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-5000ppm1%, 0-105%, 0-212%, 0-325%, 0-505%, 0-105%, 0-2015%, 0-256%, 0-4056%, 0-56% 0-5000ppm 0-1% 0-5000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-15%, 0-15%, 0-212%, 0-325%, 0-556%, 0-105%, 0-2056%, 0-2056%, 0-4056%, 0-556% 0-5000ppm 0-5% 0-1000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-5000ppm1%, 0-15%, 0-15%, 0-215%, 0-255%, 0-555%, 0-4055%, 0-2056%, 0-4055%, 0-2056%, 0-4055%, 0-2056%, 0-4055%, 0-2056%, 0-2010%, 0-201000%, 0-20100%, 0-2	0-3000ppm						
0.2500pm 0-3000ppm 0-2% 0-1000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-5000ppm1%, 0-105%, 0-212%, 0-325%, 0-505%, 0-105%, 0-2015%, 0-256%, 0-4056%, 0-56% 0-5000ppm 0-1% 0-5000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-15%, 0-15%, 0-212%, 0-325%, 0-556%, 0-105%, 0-2056%, 0-2056%, 0-4056%, 0-556% 0-5000ppm 0-5% 0-1000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-5000ppm1%, 0-15%, 0-15%, 0-215%, 0-255%, 0-555%, 0-4055%, 0-2056%, 0-4055%, 0-2056%, 0-4055%, 0-2056%, 0-4055%, 0-2056%, 0-2010%, 0-201000%, 0-20100%, 0-2	0-2000ppm	0-2%	0-1000ppm/1%. 0-2000ppm/1%. 0-2500ppm/1%. 0-3000ppm/1%. 0-5000ppm/5%. 0-1/5%. 0-2/20%. 0-3/20%. 0-5/20%. 0-10/20%				
0-3000ppm 0-1% 0-5000ppm 0-5000ppm 0-1% 0-5000ppm/1%, 0-2000ppm/1%, 0-2000ppm/1%, 0-2000ppm/1%, 0-3000ppm/5%, 0-1/5%, 0-2/10%, 0-2/25%, 0-556%, 0-10/50%, 0-20/50%, 0-2/50%, 0-40/50%, 0-50% 0-5000ppm 0-5% 0-1000ppm/1%, 0-2000ppm/1%, 0-2000ppm/1%, 0-2000ppm/1%, 0-5000ppm/5%, 0-1/5%, 0-2/25%, 0-2556%, 0-2556%, 0-40/50%, 0-2550%, 0-40/50%, 0-2550%, 0-40/50%, 0-2550%, 0-40/50%, 0-2500%, 0-2550%, 0-2550%, 0-40/50%, 0-2500%, 0-2500%, 0-2500%, 0-2500%, 0-2500%, 0-2500%, 0-2500%, 0-2500%, 0-2500%, 0-2500%, 0-20/00%, 0-25/100%, 0-40/100%, 0-20/100%, 0-20/10%, 0-25000ppm/1%, 0-2000ppm/1%, 0-2000ppm/1%, 0-5000ppm/1%, 0-2000ppm/1%, 0-2000ppm/2%, 0-20100%, 0-21/0%, 0-21/0%, 0-300%, 0-550%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-20/100%, 0-25/100%, 0-20/100%, 0-25/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-25							
0-10% 0-10% 0-40000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-5000ppm1%, 0-1000, 0-225%, 0-55%, 0-105%, 0-205%, 0-255%, 0-405%, 0-255%, 0-405%, 0-255%, 0-405%, 0-255%, 0-4055%, 0-255%, 0-255%, 0-4055%, 0-255%, 0-255%, 0-4055%, 0-255%, 0-255%, 0-4055%, 0-255\%, 0-2550\%, 0-2550\%, 0-2550\%, 0-2550\%, 0-2550\%, 0-2550\%, 0-2550\%, 0-2550\%, 0-2550\%, 0-							
0-5000ppm 0-5% 0-1000ppm1%, 0-2000ppm1%, 0-2500ppm1%, 0-3000ppm1%, 0-5000ppm1%, 0-102%, 0-325%, 0-525%, 0-1056%, 0-2050%, 0-2550%, 0-40150%, 0-50% 0-1% 0-5% 0-50000ppm, 0-10000ppm1%, 0-20000ppm1%, 0-3000ppm1%, 0-3000ppm1%, 0-5000ppm1%, 0-210%, 0-325%, 0-550%, 0-1010%, 0-2010%, 0-25100%, 0-40100%, 0-20100%, 0		0-1%					
0-1% 0-5% 0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/1%, 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/56%, 0-10/100%, 0-20/10%, 0-2/100	0-5000ppm	0-3%	0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/1%, 0-5000ppm/5%, 0-1/5%, 0-2/10%, 0-3/25%, 0-5/50%, 0-10/50%, 0-20/50%, 0-20/50%, 0-40/50%, 0-50%				
0-1% 0-5% 0-50006000ppm, 0-10000ppm1%, 0-2000ppm1%, 0-2000ppm1%, 0-3000ppm1%, 0-3000ppm1%, 0-2000ppm1%, 0-2000pp, 0-25%, 0-5/5%, 0-10100%, 0-20100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-40/100%,	0-5000ppm	0-5%	0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/1%, 0-5000ppm/5%, 0-1/5% 0-2/5%, 0-3/25%, 0-5/25%, 0-10/50%, 0-20/50%, 0-20/50%, 0-40/50%, 0-50%				
0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-70/100%, 0-2000ppm/2%, 0-2000ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/100%, 0-20/1		0-5%					
Control Control Control Control 0-25/100%, C-40/100%, C-50/100%, C-70/100%, C-100% C-10% C-20% C-500/5000ppm, C-1000ppm/1%, C-2000ppm/2%, C-2500ppm/2%, C-3000ppm/2%, C-3000ppm/2%, C-1/10%, C-2/20%, C-3/20%, C-3/20%, C-5/20%, C-10/100%, C-20/100%, C-20/100%, C-25/100%, C-20/100%, C-20/100%, C-20/100%, C-20/100%, C-20/100%, C-20/100%, C-25/100%, C-20/100%,	0-1%	0-10%					
Image: constraint of the second sec	0-2%	0-10%					
0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100% 0-1000 0-3% 0-25% 0-1000ppm/1%, 0-2000ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/25%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-10/100%, 0-20	0-2%	0-20%					
0-50/100%, 0-70/100%, 0-100% 0-1000ppm/1%, 0-2000ppm/1%, 0-2000ppm/1%, 0-3000ppm/1%, 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/25%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-50/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-20/100%, 0-25/100%, 0-20/100%, 0-25/100%, 0-20/100%, 0-25/100%, 0-20/100%, 0-25/100%, 0-20/100%, 0-25/100%, 0-21/10%, 0-21/10%, 0-21/00%, 0-21/10%, 0-25/100%, 0-25/100%, 0-40/100%, 0-20/100%, 0-25/100%, 0-20/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-20/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-25/100%, 0-25/100%, 0-20/100%, 0-	0-3%	0-10%					
0-50/100%, 0-70/100%, 0-100% 0-55% 0-50% 0-1000ppm/1%, 0-2000ppm/1%, 0-2000ppm/1%, 0-3000ppm/1%, 0-5000ppm/5%, 0-1/5%, 0-2/5%, 0-5/25%, 0-10/100%, 0-20/100%, 0-20/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100% 0-10% 0-1000pm/1%, 0-2100%, 0-3/10%, 0-5/50%, 0-10/50%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100% 0-10% 0-5000ppm/5%, 0-1/10%, 0-2/10%, 0-3/10%, 0-5/50%, 0-10/50%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100% 0-20% 0-50% 0-1000ppm/1%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100% 0-20% 0-500 0-500% 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/100%, 0-20/100%, 0-20/100%, 0-70/100%, 0-100/50 0-20% 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100/50 0-50% 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100% 0-20% 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/100%, 0-20/100%, 0-20/100%, 0-50/100%, 0-70/100%, 0-100% 0-50% 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/20%	0-3%	0-25%					
0-50/100%, 0-70/100%, 0-100% 0-1000 0-10% 0-50% 0-1000pm/1%, 0-2000ppm/1%, 0-2000ppm/1%, 0-3000ppm/1%, 0-5000ppm/5%, 0-1/10%, 0-2/10%, 0-3/25%, 0-5/50%, 0-10/50%, 0-20/10%, 0-20/10%, 0-20/10%, 0-20/10%, 0-20/10%, 0-20/10%, 0-20/10%, 0-20/10%,	0-5%	0-25%					
0-50/100%, 0-70/100%, 0-100% 0-100% 0-50/100%, 0-70/100%, 0-10/0% 0-100% 0-5000ppm/5%, 0-1/10%, 0-2/10%, 0-3/10%, 0-5/50%, 0-10/50%, 0-20/100%, 0-20/100%, 0-50/100%, 0-70/100%, 0-100% 0-20% 0-50% 0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100% 0-25% 0-1000% 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/100%, 0-20/100%, 0-20/100%, 0-50/100%, 0-70/100%, 0-100% 0-25% 0-500% 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/100%, 0-20/100%, 0-20/100%, 0-50/100%, 0-70/100%, 0-100% 0-50% 0-500% 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/100%, 0-20/100%, 0-20/100%, 0-50/100%, 0-70/100%, 0-100% 0-25% 0-500% 0-500% 0-500% 0-10/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-50/100%, 0-70/100%, 0-100% 0-50% 0-500% 0-500% 0-10/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-50/100%, 0-70/100%, 0-100% 0-70% 0-500% 0-500% 0-10/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-20/100%, 0-50/100%, 0-70/100%, 0-100%	0-5%	0-50%					
0-20% 0-50% 0-1000ppm/1%, 0-2000ppm/1%, 0-3000ppm/1%, 0-3000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-1/100%, 0-20/	0-10%	0-50%					
0-20% 0-50% 0-1000ppm/1%, 0-2000ppm/1%, 0-3000ppm/1%, 0-3000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/100%, 0-20	0-10%	0-100%					
0-40%	0-20%	0-50%					
0-40%	0-25%		0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100%				
0-25% 0-40% 0-50% 0-70%							
0-25% 0-40% 0-50% 0-70%	0-20%	0-100%	0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100%				
0-40% 0-50% 0-70%	0-25%						
0-50% 0-70%							
0-70%							
	0-100%	None					

	t analyzer: CO	
1-componen	1	2-component: CH4
	2nd range (max.)	1st range/2nd range (max.)
0-100ppm	0-1000ppm	0-500/5000ppm, 0-1000/5000ppm, 0-2200/50000ppm, 0-2500/5000ppm, 0-3000/5000ppm, 0-5000ppm
0-200ppm	0-2000ppm	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/1%, 0-5000ppm/1%, 0-1%
0-250ppm	0-2500ppm	
0-300ppm	0-2500ppm	
0-500ppm	0-2500ppm	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/2%, 0-2/10%, 0-3/10%, 0-5/10%, 0-10%
0-500ppm	0-5000ppm	0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/2%, 0-2/10%, 0-3/10%, 0-5/10%, 0-10%
0-1000ppm	0-2500ppm	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/3%, 0-1/3%, 0-2/20%, 0-3/20%, 0-5/20%, 0-10/20%, 0-20%
0-1000ppm	0-5000ppm	0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/3%, 0-1/3% 0-2/20%, 0-3/20%, 0-5/20%, 0-10/20%, 0-20%
0-1000ppm	0-1%	0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/3%, 0-1/3%, 0-2/20%, 0-3/20%, 0-5/20%, 0-10/20%, 0-20%
0-2000ppm	0-2500ppm	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/5%, 0-2/20%, 0-3/20%, 0-5/20%, 0-10/20%, 0-20%
0-2000ppm	0-5000ppm	0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/5%, 0-2/20%, 0-3/20%, 0-5/20%, 0-10/20%, 0-20%
0-2000ppm	0-2%	0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/5%, 0-2/20%, 0-3/20%, 0-5/20%, 0-10/20%, 0-20%
0-2500ppm	0-5000ppm	0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/5%, 0-2/20%, 0-3/20%, 0-5/25%, 0-10/25%, 0-20/25%, 0-25%
0-2500ppm	0-2%	0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/5%, 0-2/20%, 0-3/20%, 0-5/25%, 0-10/25%, 0-20/25%, 0-25%
0-3000ppm	0-2%	0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/5% 0-2/20%, 0-3/20%, 0-5/25%, 0-10/25%, 0-20/25%, 0-25%
0-5000ppm	0-3%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/50%, 0-20/50%, 0-25/50%, 0-40/50%, 0-20/50\%, 0-20\%
0-5000ppm	0-5%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/20%, 0-5/20%, 0-10/50%, 0-20/50%, 0-25/50%, 0-40/50%, 0-50/6%, 0-20/50%, 0-20/50%, 0-25/50%, 0-25/50%, 0-20/50\%, 0-20/5
0-1%	0-10%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/50%, 0-20/50%, 0-25/50%, 0-40/50%, 0-50%
0-2%	0-20%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/10%, 0-3/10%, 0-5/25%, 0-10/100%, 0-20/100%, 0-25/100%, 0-25/100%, 0-50/100%, 0-50/100%, 0-10/10%, 0-20/100%, 0-20/10%
0-2%	0-10%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/100%, 0-20/100%,
0-3%		0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100%
0-3%	0-25%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/25%, 0-10/100%, 0-20/100%
0-5%	0-20%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/100%, 0-20/10%, 0-2
0-5%	0-50%	0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/50%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-50/100%, 0-10/50%, 0-10/50%, 0-20/100%, 0-40/100%, 0-50/100%, 0-50/100%, 0-70/100%, 0-10/50%, 0-10/50%, 0-25/100%, 0-40/100%, 0-50/100%, 0-50/100%, 0-70/100%, 0-10/50%, 0-10/50%, 0-25/100%, 0-40/100%, 0-50/100%, 0-50/100%, 0-70/100%, 0-10/50%, 0-10/50%, 0-25/100%, 0-40/100%, 0-50/100%, 0-50/100%, 0-70/100%, 0-10/50%, 0-10/50%, 0-50/100%, 0-50/100%, 0-70/100%, 0-10/50%, 0-50/100\%, 0-50/100\%, 0-50/
0-10%	0-20%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/100%, 0-20/10%, 0-20/10%
0-10%	0-50%	0-1000.ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/100%, 0-20/100%, 0-40/100%,
0-20%		6 1000ppm 1/2, 0 2000ppm 2/2, 0 2000ppm 2/2, 0 2000ppm 2/2, 0 1000, 0 2000ppm 2/2, 0 2000ppm 2/2, 0 1000, 0 2000ppm 2/2, 0 200
0-25%	1	
0-40%	1	
0-10%	0-100%	0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/10%, 0-3/10%, 0-5/50%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-20/100%, 0-
0-20%	0-100%	0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/10%, 0-3/25%, 0-5/50%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100%
0-25%	0-100%	- 2000pm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/2%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%,
0-40%	0.00/0	0-2000pm 2/a, 0-2000pm 2/a, 0-3000ppm 2/a, 0-3000ppm 2/a, 0-11 0/a, 0-22 0/a, 0-32 0/a, 0-20100/a,
0-40%		
0-70%		
0-100%	None	
V- 100 /0	NOTE	

3-component analyzer: NO/SO2/CO >>> Combination of 1st component NO and 2nd component SO2 / 3rd component CO

1-componen	t: NO		2-componen	t: SO2	3-component: CO
1st range	2nd range (max.)		1st range	2nd range (max.)	1st range/2nd range (max.)
0-200ppm	0-2000ppm		0-200ppm	0-2000ppm	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-500/2500ppm, 0-1000/2500ppm, 0-2000/2500ppm, 0-2500ppm
0-250ppm	0-2500ppm		0-250ppm	0-2500ppm	
0-300ppm	0-2500ppm		0-300ppm		
0-500ppm	0-5000ppm	+	0-500ppm	0-2500ppm	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-500/5000ppm, 0-1000/5000ppm, 0-2000/5000ppm, 0-5000ppm
0-1000ppm	0-5000ppm		0-1000ppm		
0-2000ppm	0-5000ppm		0-2500ppm	None	
0-2500ppm	0-5000ppm		0-1000ppm	0-5000ppm	0-500/5000ppm, 0-1000/5000ppm, 0-2000/5000ppm, 0-2500/5000ppm, 0-3000/5000ppm, 0-5000ppm
0-3000ppm	0-5000ppm		0-2000ppm		
0-5000ppm	None		0-2500ppm		
			0-3000ppm		
			0-5000ppm	None	

3-component analyzer: CO₂/CO/CH₄ >>> Combination of 1st component CO₂ / 2nd component CO and 3rd component CH₄

1-componer	nt: CO2	2-component: CO	1	3-componer	nt: CH4	
1st range	2nd range (max.)	1st range/2nd range (max.)	1	1st range	-	Availability of product
0-5000ppm	0-3%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/20%,		0-5000ppm	0-5%	Product available only
0-1%	0-5%	0-3/25%, 0-5/50%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100%				when CO analyzer max.
0-2%	0-5%					measuring range is
0-5000ppm	0-5%	0-500/5000ppm, 0-1000ppm/1%, 0-2000ppm/2%, 0-2500ppm/2%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/20%,	+			50% or less
		0-3/25%, 0-5/50%, 0-10/50%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100%		0-1%	0-10%	Product available
0-1%	0-10%	0-500/5000ppm , 0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/20%,	1	0-2%	0-20%	
		0-3/25%, 0-5/25%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100%	-	0-3%	0-25%	Product available only
0-2%	0-20%	0-500/5000ppm , 0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/50%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100%		0-5%	0-10%	when CO analyzer measuring range is 0 to
0-2%	0-10%	0-500/5000ppm , 0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/2%, 0-5000ppm/5%, 0-1/10%, 0-2/20%,	1	0-10%	0-20%	1000ppm or more.
0-3%	0-25%	0-3/25%, 0-5/50%, 0-10/100%, 0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100%		0-20%	0-25%	Product available only
0-5%	0-50%		-	0-25%	0-40%	when CO analyzer
0-10%	0-100%	0-1000ppm/1%, 0-2000ppm/1%, 0-2500ppm/1%, 0-3000ppm/2%,				measuring range is 0 to
0-20%	4	0-5000ppm/5%, 0-1/10%, 0-2/20%, 0-3/25%, 0-5/50%, 0-10/100%,		0-40%	0-50%	5000ppm or more.
0-25%		0-20/100%, 0-25/100%, 0-40/100%, 0-50/100%, 0-70/100%, 0-100%		0-50%	0-70%	Product available only
0-40%				0-50%	0-70%	when CO analyzer
0-50%				0.70%	0.100%	measuring range is more
0-70%]			0-70%	0-100%	than 5000ppm and CO2
0-100%	None]	0-100%	None	analyzer range is more than 2%.

ZPA

4-component analyzer: NO/SOz/CO2/CO >>> Combination of 1st component NO /4th component CO and component 2nd component SOz/3rd component CO2

•	,					
1-component: NO		4-component: CO				
1st range 2nd range (max.)		1st range/2nd range (max.)				
0-200ppm	0-2000ppm					
0-250ppm	0-2500ppm					
0-300ppm	0-2500ppm					
0-500ppm	0-2000ppm	0-200/2000ppm, 0-250/2500ppm, 0-300/2500ppm, 0-500/2500ppm, 0-1000/2500ppm, 0-2000/2500ppm, 0-2500ppm, None				
0-1000ppm	0-2000ppm					
0-2000ppm	None					
0-500ppm	0-5000ppm					
0-1000ppm	0-5000ppm					
0-2000ppm	0-5000ppm					
0-2500ppm	0-5000ppm	0-500/2500ppm, 0-1000/2500ppm, 0-2000/2500ppm, 0-2500ppm, None				
0-3000ppm	0-5000ppm					
0-5000ppm	None					
+						
2-component	t analyzer: SO2	3-component analyzer: CO2				
1st range	2nd range (max.)	1st range/2nd range (max.)				
0-200ppm	0-2000ppm					

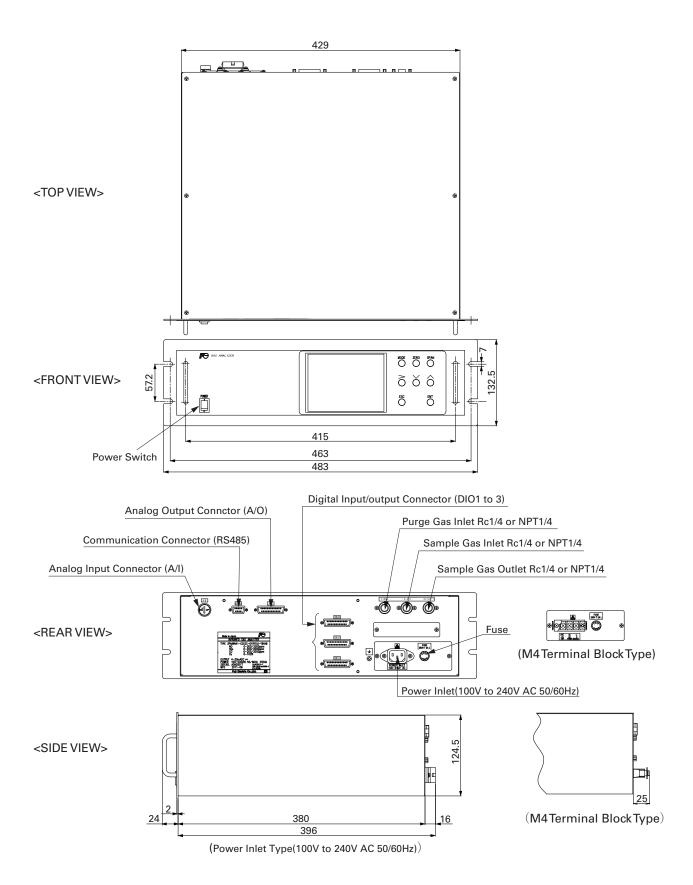
2-component analyzer: SO2		3-component analyzer: CO ₂
1st range	2nd range (max.)	1st range/2nd range (max.)
0-200ppm	0-2000ppm	
0-250ppm	0-2500ppm	
0-300ppm	0-2500ppm	
0-500ppm	0-5000ppm	
0-1000ppm	0-5000ppm	0-1/10%, 0-2/20%, 0-3/20%, 0-5/50%, 0-10/50%, 0-20/50%, 0-25/50%, 0-40/50%, 0-50%/None
0-2000ppm	0-5000ppm	
0-2500ppm	0-5000ppm	
0-3000ppm	0-5000ppm	
0-5000ppm	None	

Table 2 Channel (Ch) No. and display/output contents comparison table

Code sym 6th digit		21st diait	Display/output contents
Y	1 to 3	Y	Ch1:O2
P	Y	Y	Ch1:NO
A	Y	r Y	Ch1:SO ₂
D	Y	r Y	Ch1:CO2
B	Y Y	Y Y	Ch1:CO
E	Y Y	Y Y	
F	Y Y	Y Y	Ch1:CH4
			Ch1:NO, Ch2:SO2
G	Y	Y	Ch1:NO, Ch2:CO
J	Y	Y	Ch1:CO ₂ , Ch2:CO
K	Y	Y	Ch1:CH4, Ch2:CO
L	Y	Y	Ch1:CO ₂ , Ch2:CH ₄
Ν	Y	Y	Ch1:NO, Ch2:SO ₂ , Ch3:CO
Т	Y	Y	Ch1:CO ₂ , Ch2:CO, Ch3:CH ₄
V	Y	Y	Ch1:NO, Ch2:SO ₂ , Ch3:CO ₂ , Ch4:CO
Р	1 to 3	Y	Ch1:NO, Ch2:O ₂
А	1 to 3	Y	Ch1:SO ₂ , Ch2:O ₂
D	1 to 3	Y	Ch1:CO ₂ , Ch2:O ₂
В	1 to 3	Y	Ch1:CO, Ch2:O2
E	1 to 3	Y	Ch1:CH4, Ch2:O2
F	1 to 3	Y	Ch1:NO, Ch2:SO ₂ , Ch3:O ₂
G	1 to 3	Y	Ch1:NO, Ch2:CO, Ch3:O2
J	1 to 3	Y	Ch1:CO ₂ , Ch2:CO, Ch3:O ₂
К	1 to 3	Y	Ch1:CH ₄ , Ch2:CO, Ch3:O ₂
L	1 to 3	Y	Ch1:CO ₂ , Ch2:CH ₄ , Ch3:O ₂
Ν	1 to 3	Y	Ch1:NO, Ch2:SO ₂ , Ch3:CO, Ch4:O ₂
Т	1 to 3	Y	Ch1:CO ₂ , Ch2:CO, Ch3:CH ₄ , Ch4:O ₂
V	1 to 3	Y	Ch1:NO, Ch2:SO ₂ , Ch3:CO ₂ , Ch4:CO, Ch5:O ₂
Р	1 to 3	A *	Ch1:NOx, Ch2:O ₂ , Ch3:corrected NOx
А	1 to 3	A *	Ch1:SO ₂ , Ch2:O ₂ , Ch3:corrected SO ₂
В	1 to 3	A *	Ch1:CO, Ch2:O ₂ , Ch3:corrected CO
F	1 to 3	A *	Ch1:NOx, Ch2:SO ₂ , Ch3:O ₂ , Ch4:corrected NOx, Ch5:corrected SO ₂
G	1 to 3	A *	Ch1:NOx, Ch2:CO, Ch3:O ₂ , Ch4:corrected NOx, Ch5:corrected CO
J	1 to 3	A *	Ch1:CO ₂ , Ch2:CO, Ch3:O ₂ , Ch4:corrected CO
N	1 to 3	A *	Ch1:NOx, Ch2:SO ₂ , Ch3:CO, Ch4:O ₂ , Ch5:corrected NOx, Ch6:corrected SO ₂ , Ch7:corrected CO
V	1 to 3	A *	Ch1:NOx, Ch2:SO2, Ch3:CO2, Ch4:CO, Ch5:O2, Ch6:corrected NOx, Ch7:corrected SO2, Ch8:corrected CC
Р	1 to 3	C *	Ch1:NOx, Ch2:O2, Ch3:corrected NOx, Ch4:corrected NOx average
А	1 to 3	C *	Ch1:SO ₂ , Ch2:O ₂ , Ch3:corrected SO ₂ , Ch4:corrected SO ₂ average
В	1 to 3	C *	Ch1:CO, Ch2:O2, Ch3:corrected CO, Ch4corrected CO average
F	1 to 3	C *	Ch1:NOx, Ch2:SO ₂ , Ch3:O ₂ , Ch4:corrected NOx, Ch5:corrected SO ₂ , Ch6:corrected NOx average,
			Ch7:corrected SO ₂ average
G	1 to 3	C *	Ch1:NOx, Ch2:CO, Ch3:O ₂ , Ch4:corrected NOx, Ch5:corrected CO, Ch6:corrected NOx average,
-		-	Ch7:corrected CO average
J	1 to 3	C *	Ch1:CO ₂ , Ch2:CO, Ch3:O ₂ , Ch4:corrected CO, Ch5:corrected CO average
N	1 to 3	C *	Ch1:NOx, Ch2:SO ₂ , Ch3:CO, Ch4:O ₂ , Ch5:corrected NOx, Ch6:corrected SO ₂ , Ch7:corrected CO,
	1.000		Ch8:corrected NOx average, Ch9:corrected SO ₂ average, Ch10:corrected CO average
V	1 to 3	C *	Ch1:NOx, Ch2:SO ₂ , Ch3:CO ₂ , Ch4:CO, Ch5:O ₂ , Ch6:corrected NOx, Ch7:corrected SO ₂ , Ch8:corrected CC
v	1.0.5		

* When the 21st digit code is A or C, the component of the NO analyzer is displayed as NOx.

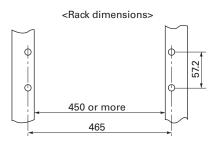
OUTLINE DIAGRAMS (Unit : mm)



Mounting method

The analyzer weight should be supported at the bottom of the case.

19-inch rack mounting type

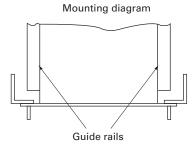


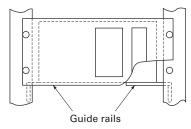


- Replacement fuse (250V, 2A AC, delay type) ... 2 pcs
- Instruction manual ... 1 copy
- Connector for I/O connection ... 1 set
- Power supply cord (standard inlet type 2m) ... 1 pc

ORDERING INFORMATION

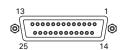
- 1. Code symbols
- 2. Application and composition of sample gas





EXTERNAL CONNECTION

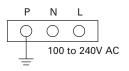
<Analog output> A/O connector



D-sub 25pins female

* In standard, displayed Channel No. and Analog Output No. are same.

<Screw terminal (M4)>

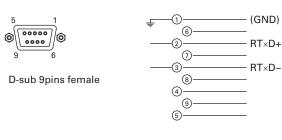




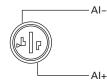


	A01+
(14)	A01-
2	A02+
15	A02-
3	AO3+
16	A03-
	A04+
10	A04-
	A05+
18	A05-
6	AO6+
(19	
(7) <u> </u>	
@	A07-
(8)	
ଁ ଥା	
9	A09+
~	
10	AO10+
	AO10-
	A011+
24)	A011-
12	AO12+
25	
(13)	
-	

<RS485 communication signal>



<Analog input> A/l connector (O2 signal input)



<Digital I/O> DIO 1 to 3 connector (option)

<digital i="" o=""> DIO 1 to 3 connector (option)</digital>											DIO1	DIO2	DIO3				
13	3				1									connector	connector	connect	or
(0000	0000		٦Ċ.	~							 -(1)	— DI1+	DI4+	DI7+)
Ô	000	000	0000	00	۶Į	0						2		— DI1–	DI4-	DI7-	Digital input
2	25				14							, – C	 -2	— DI2+	DI5+	DI8+	> OFF: 0V
												r		— DI2–	DI5-	DI8-	ON : 12 to 24V DC
D	-sub	25p	ins f	em	nale	9						,_□	-3	— DI3+	DI6+	DI9+	
												[— DI3–	DI6-	DI9-	J
* DI	0 1 to	538	are a	all a	as s	sam	e c	onr	lect	or.		6	-4 NC]	504	D .0.0	D044)
												~		D01	DO6	DO11	
Conto					4							~	(5) NO) (18) NC)				
Conte				inp	ut	sigr	าลเ					\	-6 com	DO2	D07	DO12	
DI1	Rem											o		002	207	0012	
DI2	Aver	age	value	res	et							<u>ρ</u>	-7 NC)				Digital output
DI3	A. ca	l. sta	art									∖	com }	DO3	DO8	DO13	max. contact load
DI4	A. ze	ro. c	al. sta	art								~	–® NO ∫				rating 24V DC/1A
DI5	Rem	ote r	ange	Ch	1							<u>e</u>	 20 NC)				
DI6	Rem	ote r	ange	Ch2	2							6	 com }	DO4	DO9	DO14	
DI7	Rem	ote r	ange	Ch	3							o	 —2 NO ∫				
DI8	Rem	ote r	ange	Ch4	4							٢	 -10 NC]		5.0.4.0	D.0.1-	
DI9	Rem	ote r	ange	Ch	5							·>		DO5	DO10	DO15	J
												0	-11 NO J 24				
Allocation table of digital input signal										12							
22th di	git →	А	В	С	D	Е	F	G	Н	Y			25				
DI1		0	0	С	0	0	0	0	C				13				
DI2		0	0	D	\bigcirc	0	0	0	С]						
DI3			0			\bigcirc		0	С]						

 \odot sign shows the function is valid.

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* : The function might be invalid depending on the number of measurable components.

For example: DI5 corresponds to 1st component, DI6 corresponds to 2nd components.

Contents of digital output signal

DI4 DI5 DI6

DI7

DI8

DI9

	Independent on the												
	number of compo	ber of component		analyzer			2-component analyzer		3-compone	ent analyzer			
22th digit →	A, C		B, E	D, F, G, H			B, D, E, F, G, H		B, D, E, F, G, H				
D01	Instrument error		Instrument erro	or	r Instrument error		Instrument error		Instrument error				
DO2	Calibration error		Calibration erro	or	Calibration erro	r	Calibration error		Calibration error				
DO3		A.cal.status	(A.cal.status)			(A.cal.status)		(A.cal.status)			ems in the parentl		
DO4			For zero gas	(For zero gas)			(For zero gas)		(For zero gas)			not be available de	
DO5			For span gas C	h1 (For span gas Ch		h1)	(For span gas Ch1)		(For span gas Ch1)		ing on the selected type 22th digit.		
DO6	(Alarm1)		(Alarm1)				(For span gas C	h2)	(For span g	(For span gas Ch2)		zzth digit.	
D07	(Alarm2)		(Alarm2)						(For span g	jas Ch3)	The n	ormal open side (l	
DO8	(Alarm3)		(Alarm3)						(Range identi	fication Ch1)		l output is close w	
DO9	(Alarm4)		(Alarm4)				(Range identificatio	n Ch1)	(Range identi	fication Ch2)	the fu	inction is active wi	
DO10	(Alarm5)		(Alarm5)		Range identification	Ch1	(Range identificatio	n Ch2)	(Range identi	fication Ch3)	range	e ID.	
D011					(Alarm1)		(Alarm1) (Alarm1)		(Alarm1)			o of rongo ID nor	
DO12					(Alarm2)		(Alarm2)	2) (Alarm2)				e of range ID, nori (NO) side is close	
DO13					(Alarm3)		(Alarm3)		(Alarm3)			range.	
DO14					(Alarm4)		(Alarm4)	n4) (Alarm4)				ormal close (NC) s	
DO15					(Alarm5)		(Alarm5)		(Alarm5)			with Second range	
	4							F					
22th digit →	4-component anal B, E	yzer D, F		6		н		B, E	iponent ana	D, F		G	
0		<u> </u>				<u> </u>		'		,			
D01	Instrument error		ument error						ment error	Instrument		Instrument error	
DO2	Calibration error	Calib	ration error						ration error Calibration		error	Calibration error	
DO3	A.cal.status								l.status			A.cal.status	
DO4	For zero gas			For zero gas			zero gas		ro gas			For zero gas	
DO5	For span gas Ch1			For span gas Ch1			span gas Ch1		an gas Ch1			For span gas Ch1	
DO6	For span gas Ch2				span gas Ch2				0	Range identifi		For span gas Ch2	
D07			Range identification Ch1		span gas Ch3		span gas Ch3		-	Range identifi		For span gas Ch3	
D08	For span gas Ch4	<u> </u>	Range identification Ch2		span gas Ch4		span gas Ch4		oan gas Ch4			For span gas Ch4	
DO9			Range identification Ch3				e identification Ch1	For sp	oan gas Ch5			For span gas Ch5	
DO10			identification Ch4				e identification Ch2			Range identifi	cation Ch5		
DO11	(Alarm1)	(Alar				· ·	rm1)	(Alarn	n1)	(Alarm1)		Range identification Ch1	
DO12	(Alarm2)	(Alar	m2)	Range identification Ch1			rm2)	(Alarm2)		(Alarm2)		Range identification Ch2	
DO13	(Alarm3)	(Alar	m3)		Range identification Ch2		rm3)	(Alarm3)		(Alarm3)		Range identification Ch3	
DO14	(Alarm4)	(Alar		Range identification Ch3 Ra			e identification Ch3	(Alarn	-	(Alarm4)		Range identification Ch4	
DO15	(Alarm5)	(Alar	m5)	Rang	e identification Ch4	Rang	e identification Ch4	(Alarn	n5)	(Alarm5)		Range identification Ch5	

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Exclusive Zirconia O2 analyzer (to be purchased separately)

For O2 correction, the gas analyzer ZPA can accept linearized 0 to 1V DC signal from the O2 analyzer calibrated 0 to 25vol% O2 full scale. If the analyzer is not available, Fuji can supply exclusive Zirconia O2 analyzer Model ZFK. Measuring method:

Zirconia system

		•	0	0			
	Measurable	component	Rang	е			
	O2	Oxygen	0 to 25\	/01%			
Re	peatability:	Within ± 0.5% of full scale					
Lii	nearity:	Within ± 1% of full scale					
Ze	ero drift:	Within ± 1% of full scale/week					
Sp	oan drift:	Within ± 2%	of full scale/	week			
Re	sponse time:	Approx. 20 seconds (for 90% respons					
M	easured gas fl	ow rate:					

0.5 ± 0.25L / min

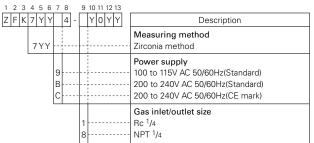
170

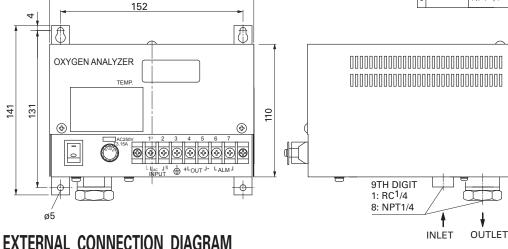
Remark: The Zirconia system, due to its principle, may produce a measuring error due to relative concentration versus the combustible O2 gas concentration. Also, a corrosive gas (SO2 of 250 ppm or more, etc.) may affect the life of the analyzer.

OUTLINE DIAGRAM (Unit:mm)

Gas inlet/outlet size:							
	Rc ¹ /4 or NPT ¹ /4						
Power supply:	Rated voltage ; 100 to 115V AC or						
	200 to 240V AC						
	Rated frequency ; 50Hz/60Hz						
	Max. rated power; 215VA (during power						
	ON)						
	65VA (during steady-						
	state operation)						
Enclosure:	Steel casing, for indoor application						
Indication:	Temperature indication (LED)						
Temperature alarm output:							
	Contact output 1a contact,						
	Contact capacity 220V, 1A AC (resistive						
	load)						
Outer dimension	ns (H x W x D):						
	141 x 170 x 190mm						
Mass {weight}:	Approx. 3kg						
Finish color:	Munsell 5Y 7/1						

CODE SYMBOLS





▲ Caution on Safety

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Output

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AC power supply

*Before using this product, be sure to read its instruction manual in advance.

Temperature to analyzer alarm output

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🖯 Fuji Electric Co., Ltd.

Grobal Sales Section

Instrumentation & Sensors Planning Dept. 1, Fuji-machi, Hino-city, Tokyo 191-8502, Japan http://www.fujielectric.com Phone: +81-42-514-8930 Fax: +81-42-583-8275 http://www.fujielectric.com/products/instruments/