



# **FSD - 3180**

## **Multi-Function Food Safety Rapid Detector**



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

## **Analytical Technologies Limited**

An ISO 9001 Certified Company



#### PRODUCT INTRODUCTION

Food safety detector product use:

The multifunctional food safety detector is an integrated food safety rapid detection and analysis equipment, which is widely used in the food and drug supervision bureau, the health department, higher education institutions, scientific research institutes, agricultural departments, farms, slaughterhouses, deep processing enterprises of food meat products., inspection and quarantine departments and other units use.

#### APPLICATION RANGE

Multi-functional food safety detector can quickly detect more than 200 items of non-edible chemicals, abuse of food additives, pesticide residues, veterinary drug residues, heavy metals, antibiotic residues, hormone residues, toxin residues, chemical residues, etc. Quantitative testing. Such as formaldehyde, sulfur dioxide, hanging white block, hydrogen peroxide, nitrite, protein, honey fructose and glucose, sucrose in honey, peroxide value, acid value, fusel oil in white wine, lead, mercury arsenic, tin, cadmium, borax, potassium ferrocyanide in salt, iodine in salt, benzoyl peroxide, red pigment (carmine, amaranth), yellow pigment (lemon yellow, sunset yellow), blue pigment (bright blue), food Total acid of vinegar, total acid of soy sauce, sodium benzoate, cyclamate, magnesium sulfate in fungus, purity of sesame oil, malondialdehyde, potassium bromate, residual chlorine, sodium glutamate, volatile base nitrogen, sorbic acid, sodium saccharin, Beverage medium vitamin C, soy sauce amino acid nitrogen, meat product acid price, water cyanide, water products, histamine, honey powder enzyme, honey acidity, rhodamine B, melamine, clenbuterol, salbutamol, lake Dopamine, tetracyclines, nitrofurans, sulfonamides, sand stars, chloramphenicol, malachite green sulfonamides, porcine blue ear virus, swine fever virus, aflatoxin B1, pseudorabies virus, pseudorabies virus gE protein, pig FMD 3ABC protein, FMD virus IgG, porcine parvovirus, chicken bird flu rapid test.



#### PRODUCT PERFORMANCE

- 1, Android smart operating system, using more efficient and user-friendly operation, the instrument has network cable connection, wifi network upload, GPRS wireless remote transmission function, fast upload data.
- 2, high degree of intelligence, the instrument has a self-test function: with power-on self-test and zero adjustment function, with automatic detection of repeatability.
- 3, a new generation of high-speed thermal printer, the detection report can automatically print the test report and QR code.
- 4. The instrument has a supervision platform, the data can be uploaded by LAN and Internet data, and the test results are directly transmitted to the food safety supervision platform. Conduct regional food safety supervision and big data analysis processing and data statistics, detect regional food safety long-term and short-term dynamics, and achieve food safety problem prediction and early warning
- 5, integrated host, including food safety testing module, multi-channel pesticide residue detection module, colloidal gold immunochromatography detection module.
- 6, integrated portable rapid inspection equipment, to meet the needs of on-site and flow detection, can detect all test items under the same software, and can visually display the test results through the same window.
- 7, Colloidal gold module detection mode: Orbital automatic transmission scanning, automatically exiting the detection card after the detection is completed.
- 8, CT line automatic identification, no manual adjustment.
- 9, the instrument has a variety of sample menu library, flexible selection of test samples, different test channels can simultaneously detect different sample items.
- 10, sample processing is simple and labor-saving, the overall operation is fast, safe and convenient.
- 11. The instrument has its own protection function, which can set the user name and password to prevent non-workers from operating.
- 12, high sensitivity, high detection accuracy, high repeatability, scanning high precision optical sensor.
- 13, built-in powerful database, you can directly select the sample name, test indicators, inspection unit and other information on the instrument, you can also directly edit the input sample name, test indicators, inspection unit and other information on the instrument and save it into the sample database.



- 14, The instrument has the functions of recalibration, locking, and factory reset.
- 15, support U disk storage. The result determination line can be modified, the calibration value of the comparison value can be saved, and the data is not lost when the power is turned off.
- 16, Compatible with all the colloidal gold cards on the market, the use of consumables is not limited, greatly enhancing the user experience.

#### >> THE MAIN PARAMETERS

- 1, The main control chip adopts ARM Cortex-A7, RK3288/4 core processor, the main frequency is 1.88Ghz, the running speed is faster and the stability is stronger.
- 2, display mode: 7-inch LCD touch screen display, readings are intuitive and simple.
- 3, AC and DC, DC 12V power supply, can be connected to the car power supply, can be equipped with 6ah large capacity rechargeable lithium battery, convenient outdoor flow test.
- 4, Four-wavelength cold light source, each channel is equipped with 410, 520, 590, 630nm wavelength light source. It is equipped with advanced optical path switching device. The patented optical path switching function can realize up to 64 wavelengths, and all detection items can realize simultaneous detection of all channels.
- 5, the light source brightness automatic adjustment and calibration
- 6, intelligent constant current regulator, light intensity automatic calibration, long-term continuous working light source without temperature drift phenomenon.
- 7. Built-in new national limit standard, compare the results with the test results, and continuously update the standard.
- 8, continuous injection of samples, continuous testing
- 9. The sample number is automatically accumulated.
- 10. The test items can be expanded.
- 11, the test results can be batch printed, batch upload.
- 12. The test result is an Excel spreadsheet, which can be copied by connecting to a computer.
- 13, the test results storage capacity of 200,000
- 14, standard USB interface, free drive installation.
- 15, the firmware can be upgraded



#### **>> TECHNICAL PARAMETERS**

- 1. Pesticide residue: Lower limit of detection: inhibition rate 5%, detection range: inhibition rate (0 to 100)%
- 2, formaldehyde: lower limit of detection: 1mg / kg, detection range: (0 ~ 100) mg / kg
- 3. Nitrite: lower limit of detection: 1mg/kg, detection range:  $(0\sim100)$  mg/kg
- 4. Sulfur dioxide: lower limit of detection: 1mg/kg; 5mg/kg, detection range: (0  $\sim$  100) mg/kg; (0 $\sim$ 500) mg/kg
- 5. Sodium formaldehyde sulfoxylate: lower limit of detection: 5 mg/kg, detection range: (0 to 500) mg/kg
- 6, protein quality: detection limit: 0.5%, detection range: (0 ~ 50)%
- 7. Borax: Lower limit of detection: 5 mg/kg, detection range:  $(0\sim100)$  mg/kg
- 8. Hydrogen peroxide: lower limit of detection: 5 mg/kg; 10 mg/kg; 100 mg/kg, detection range: (0-500) mg/kg; (0-1000) mg/kg; (0-10000) mg/kg
- 9. Nitrate: lower limit of detection: 10 mg/kg; 40 mg/kg, detection range: (0-1000) mg/kg; (0-4000) mg/kg
- 10. Heavy metal lead: lower limit of detection: 0.5 mg/kg; 0.2 mg/L, detection range: (0-50) mg/kg; (0-20) mg/L

#### >> OPTIONAL REAGENTS AND TIMES

1	Sulfur dioxide	100 times /	26	Pigment	100 times /
		set		Amaranth red	set
2	formaldehyde	100 times /	27	Pigment	100 times /
		set		Indigo	set
3	Sodium	100 times /	28	Pigment	100 times /
	formaldehyde	set		Bright blue	set
	sulfoxylate				
4	Nitrate	100 times /	29	Pigment	100 times /
		set		Carmine	set
5	Nitrite	100 times /	30	Pigment	100 times /
		set		Sunset yellow	set



					recimoro
6	protein	100 times /	31	Pigment	100 times /
		set		Lemon yellow	set
7	Tea	100 times /	32	Borax	100 times /
	polyphenol	set			set
8	Sesame oil	100 times /	33	Benzoyl	100 times /
		set		peroxide	set
9	Iodine	100 times /	34	Vinegar total	100 times /
	content in	set		acid	set
	salt				
10	Urea	100 times /	35	Honey cane	100 times /
		set		sugar	set
11	Hydrogen	100 times /	36	Honey	100 times /
	peroxide	set		fructose	set
12	Methanol	100 times /	37	glucose	100 times /
	Wictiano	set	3,	giucosc	set
13	Saccharin	100 times /	38	Acid price	100 times /
	sodium	•	30	Acid price	set
		set	20	Carbia asid	
14	Edible oil	100 times /	39	Sorbic acid	100 times /
	peroxide	set			set
	value				
15	Sodium	100 times /	40	Total residual	100 times /
	glutamate	set		chlorine	set
	(monosodium				
	glutamate)				
16	Sudan Red I	100 times /	41	Sodium	100 times /
		set		sulfide	set
17	Sudan Red II	100 times /	42	Sodium	100 times /
		set		cyclamate	set
18	Sudan Red III	100 times /	43	Ansai Honey	100 times /
		set			set
19	Sudan Red IV	100 times /	44	Potassium	100 times /
		set		bromate	set
20	Free residual	100 times /	45	Potassium	100 times /
	chlorine	set		aluminum	set
	Cinorine	300		sulfate	500
21	Amino acid	100 times /	46	benzoic acid	100 times /
21		-	40	Defizoic acid	100 times /
	nitrogen (soy	set			set
	sauce)				
22	Heavy metal	100 times /	47	Sodium	100 times /
	lead	set		thiocyanate	set
23	Hexavalent	100 times /	48	histamine	100 times /
	chromium	set			set
24	arsenic	100 times /	49	Volatile base	100 times /
		set		nitrogen	set
25	mercury	100 times /	50	Sick meat	100 times /
		set			set
			51	Pesticide	100 times /
			31	residue	
				residue	set



### **HPLC Servicing, Validation, Trainings and Preventive Maintenance:**

HPLC Servicing: HPLC Servicing: We have team of service engineers who can attend to any make of HPLC promptly @the most

affordable cost.

Trainings :We also take up preventive Maintenace to reduce downtime of HPLC's Trainings.

AMC's/CMC :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-

shooting.

**Validations** :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments: We offer instruments/Renting Services Modules like pumps, detector etc. on Rent.





### **About Analytical Technologies**

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufaturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

## **Our Products & Technologies**



UV/VIS Spectro 2080+ Double Beam



Infra FTIR



Optima Gas Chromatograph 3007



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DSC/TGA



Semi Auto Bio Chemistry Analyzer



HEMA 2062 Hematology Analyzer



Micro Plate Reader/Washer



URINOVA 2800 Urine Analyzer



Total Organic Carbon 3800



Fully Automated CLIA



NOVA-2100 Chemistry Analyzer



PCR/Gradient PCR/ RTPCR



TOC Analyzer



Laser Particle Size Analyzer



Ion Chromatograph



Water purification system

## **Regulatory compliances**



## **Corporate Social Responsibility**

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



- 1.Research & Innovation Scientist's awards/QC Professional Award: Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personallities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org
- 2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.
- 3. ANALYTICAL FOUNDATION aims to DETOXIFY human minds, souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.





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