



H-MS1204 series

Hand held Moisture/water activity Teller

for liquid, slurries and powders application

Ref:H-MS1204IntE

Version 2.0

- Moisture and/or water activity smart test
- Instant display of moisture, when the sensor inserted into the samples
- Extended concentration test of any mixed, mingled, blend materials, just by user calibration
- up to 24 groups of measurements store, average and reading available(HBD3) hour's data log for 360 days, and 1000 data log for temporary records(HBD5)
- Moisture rectified by temperature, Assure accuracy up to 80-100 °C ;
- Software calibration, very convenient to digitizing;
- Support micro-printer, and computer communication
- You can test up to 8 kinds of substances with one meter's cost



Handheld BD3
SMS1204 series

Powder Moisture Analyzer

ATC
Multi-function
Smart test
Rugged design
Sci.algorithm
Datalog
Communication
Battery supply
Printer drive

Range: 0.1-100%
Repeability: 0.01-0.5%FS
Usage: Moisture/Water Activity Test
Temperature: < 120 °C
Application:
Small particles,powder
Chemicals,fertilizer,pharmceticals
Sands,concrete,ore,soil
Rice,millet,broomcorn millet,
wheat,beans,coffee,fruits,
vegetable,food,fish meal,leather
Woods,paper,fabric,wool,cotton etc.



H-MS1204 Moisture Sensor
<http://www.big-dipper.com.cn>

Moisture Test at Your Will

These new moisture meters combine simplicity with advanced meter functions to provide you with fast, accurate results. Available in variety of sensor types to compliment different applications, as to liquids, slurries and powders in different physiochemical status.

Practical Design with Powerful Functions

HMS1204 moisture teller measures the temperature of sample from -20-100°C. Automatically temperature compensation by software calibration chart. With the multiple calibration charts function at the same ADC hardware channel with one sensor, it can suit to measure 8 kinds of substances exactly ____only by one key selection of charts in use. User calibration could make the test more accurate, ignoring the discrepancy by sample composition and conditions at most cases. The new powerful BD5 analyzer will supply you with modern instrument function, such as huge data log and communication support.

Specifications of Analyzer:

Sensor Type	Microwave loss
Range	100ppm—100%
Repeatability	±0.1-0.5%FS
Response time	< 100 ms
Sample temperature	-20—100 °C
Circumstance	< 75% RH
Circumstance	-10—75°C(Special by order)
Safety	Intrinsic
Power	DC 9V /9V Ni-Gd > 4 hours
Meter Size	98W×180H×35T (mm)
Sensor Size	Dia 24×300 (mm, N)

* HBD3 analyzer has 1024 bit resolution, so the main application range must be specified in order. HBD5 covers 0.01 to 100% without range selection.

Liquid and Slurries Moisture Applications:

- 100ppm low detect limit moisture sensor **MSL1204** is just good to check insulation oil, transformer oil and lubricants in plant mechanic and electricity devices. And also smart way to test organic chemicals in situ test, when importing materials, business deliver and exchange, wherever.
- Normal **MS1204 sensor covers 0.1 to 100% of water content**. Widely used in many industries process and material's check, business transfer, and other in situ quick test fields. Such as in oil field, refinery plant, fuel business, oil fuel tank and pot. It is very good to monitor all kinds of organic's and some inorgani materials too. Chemicals factory, food industry, pharmacy plant, wherever needed, and whatever liquids you meet.
- **MS1204PotScan** and **PotGauger** are designed to gauge the moisture and quality of pot storage materials, typical application is the crude oil field. PotScan can gauge moisture and volume. PotGauger is enhanced with densimeter, so can calculate weight quatity. Generally measures temperature, depth, density, and moisture with one assembly sensor.

Powder Moisture Applications:

- Rice, millet, broomcorn millet, wheat, beans, coffee, fruits, vegetable, food, fish meal, leather
- Sands/coal/ore ,and other powder / chemicals etc. Woods, paper, fabric, wool, cotton etc.
- Oil, beverage, juice, wine, beer and other liquid, etc.
- Organic / inorganic chemicals, Polymers, etc.

Proved Technology

MS 1204 moisture sensor is based on microwave transmission attenuation monitor. The essential test signal is directly proportional to water content.

Employing of this experienced technology reduces the influence of sample composition and TDS of water contained to a great extent, for that these two elements always seriously trouble other electronic moisture sensors, as well keep high sensitivity compared to electric capacity principle.

Independent from sample contamination, so assured wide adaptation and stable repeatability over any industry applications.

User sample calibration algebra makes test results more reliable and identical to any Standard Analysis Method.

Expanding Application

Actually, MS1204 is also a good concentration sensors for many kinds of mixture. The expanding application is as easy as the normal operation. This is wonderful for research laboratory and new products developing center.

Specifications of Liquid Moisture Sensors

Type	Applications	Range	Accuracy	Sample Temp.
H-MS1204N10	Lab and in situ sample test for liquids	0.01-10%	± 0.01%	0-70°C
H-MS1204N	Lab and in situ sample test for liquids	0.1-100%	± 0.1%	0-100°C
H-MS1204Bar	Specially for Car tank	0.1-100%	± 0.1%	0-100°C
H-MS1204Dip	for train tank. Depth < 3 m	0.1-100%	± 0.1%	0-100°C
H-MS1204Dipext	for pot and oil tank, depth> 3 m	0.1-100%	± 0.1%	0-100°C
H-MS1204PotScan	for pot gauge of moisture and volume.	0.1-100%	± 0.1%	0-100°C
H-MS1204PotGauger	for pot gauge of moisture and weight, with density compensation.	0-30m 0.1-100%	± 0.1%	0-100°C

Specifications of Powder Moisture Sensors

Type	Application Samples	Range	Accuracy	Sample Temp.
H-MS1204pawl	The most universal sensor. Suitable for Max dia. <6mm. Powder, grain, particle, colloid, thick fluid, truss, lump, block, chunk, and other amorphous particles and foliage etc.	0.1-100%	± 1.0%FS	0-100°C
H-MS1204poke	Special for big particles, stack, slurry samples. and standing way to test to depth of 1m, with it's 1.3m bar;	0.1-100%	± 1.0%FS	0-100°C
H-MS1204Spoon	Special for very fine powder sample. Better to quantitative sample with the spoon sensor	0.1-70%	± 1.0%FS	0-100°C
H-MS1204F	Special for plate materials, such as wood, and plastic/complex materials	0.1-70%	± 0.5%FS	0-100°C

- the repeatability accuracy of powder moisture test is diverse because of sampling density variety. The accuracy listed is the largest discrepancy at most cases. In case of regular particle size distribution and uniform samples, accuracy of 0.1% is expected by experienced operator.

Meter and Included Accessories

Items	Model	Available Type	Remarks
Analyzer	H-BD5	C	included
Moisture sensor	H-MSxxxx	By order	included
Ni-Cd Battery			included
Packing Case			Included
Charger			Specify the user local power standard, 110 V or 220V AC

Selective Accessories

Items	Model	Type	Remarks
Micro-Printer	TPUP	T40	Dot printer, general record paper support
Record paper			Consumable for printer
DC Power			for printer
PC Software	Acquisition		
RS485 Kit			Remote connect to PC
Clamp Fit	ST1 Fitter	NPT1"	Screw Fixing Clamp For temporary on-line pipe continuous test usage
Bottle Fit	B25 Fitter	Dia.25	Screw Fixing Clamp For temporary on-line pipe continuous test usage

Series Technology Products

Items	Model	Range	Applications
Moisture	H-MS1130	ppm - %	FC, low moisture test, suitable for samples with low dielectric constant
Water Activity			
Moisture	H-MS1204	0.1-100%	FD, better moisture accuracy over wide range
Water Activity		0.01-1.00 Aw	

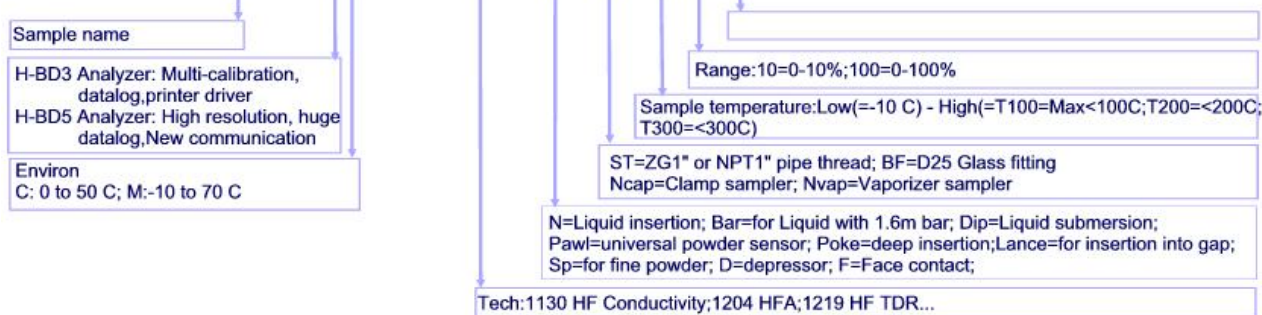
Moisture	H-MS1219	0.05-100%	TDR, better moisture accuracy at high water content
Water Activity		0.01-1.00 Aw	
Moisture	H-MS2123	ppb-570ppm	EC,trace moisture test
Water Activity		0.01-1.00 Aw	

Package: 350x450x120mm

Shipment weight: <7kg

How to order:

User Selection: I-H-BDxzCD-MSxxxx_S_Set_T_R_Version



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User Application Data Form

Samples	Name	Moisture range		Other information