



Instruments Selection Guiding

Application

- All kinds of oil, including crude oil, fuel oil, mechanic, insulator/transformer oil, lubricants and food oil as well.
- Most organic liquids
- Other material's application, please contact our engineer engineer@fullsense.com

Moisture Range and Detect Sensitivity Guide

Materials Characteristics	Application	Suitable Technology
0-1.00 aw	analysis	MS2100 : New! For water activity test
0-500ppm moisture of oil		
10ppm-2% moisture of oil	analysis	MS4120 : NIR photometer
10ppb-2/100% moisture of oil	analysis	MS4810 :cwLNIR photometer
0.1ppb-1% moisture of oil	analysis	MS4820 :cwLNIR photometer
0.01-10% moisture of oil	analysis	MSL1204bf: high frequency electronic attenuation
0.1-100% moisture of oil	analysis	MS1204p: high frequency electronic attenuation
Oil leakage, level switch	detect	MS1130 :high frequency conductivity
High dissolved salts	analysis	MS4120 : NIR photometer
High Electric Constancy Liquids,>40	analysis	MS4120 : NIR photometer
Oil/water interface	monitoring	MS1204DP : high frequency electronic attenuation
Level and Interface measurement	monitoring	LM1410: Phase difference technology

Transducer Electronic Function Guide

Sensor Tech	BD5xM	BD5xMD
	0/4-20mA output STIMcom Keypad and LCD function available	0/4-20mA output STIMcom Keypad function available LCD included
MS2100	ok	ok
MS4120	ok	ok
MS1204bf	ok	ok
MS1204p	ok	ok
MS1130p	ok	ok
MS1204-DP	ok	ok
MS2100	ok	ok

X=C: -10 to 60 °C; x=M: -20 to 70 °C; x=L: -30 to 85 °C; x=T: -40 to 125 °C;

Transducer Model Application Guide



Technology	HFA	HFA	HFA	HFA	HFA	Electrochem	NIR	cwLNIR
Type	Insert	Insert	Insert	Flow throw	By flow	Insert	Sampling	Sampling
Model	MS1204pp	MS1204pc	MS1204pm	NS1204H	MS1204B	MS2123	MS4120	MS4810
Connect	ZG1", 1"NPT	ZG1", 1"NPT	F185	F150	ZG3/4"3/4"NPT	ZG3/4"3/4"NPT	ZG3/4"3/4"NPT	ZG3/4"3/4"NPT
Installation	Against flow	Against flow	Against flow	Inlet, down Outlet, upper	Inlet, down Outlet, upper	Any way		
Position	Perpendicular	Perpendicular	Perpendicular	Perpendicular	Perpendicular	Any way		
Size of insert	550xφ24	550 xφ24	640 xφ60					
T.Length(mm)	550	550	640	1060/H.D.300	760/H.D400	<500		
Weight(kg)	4	4	7	30	25			
Sample temperature	100 ~350°C	100~350°C	100~350°C	100~350°C	100°C	-10~85°C	-10~85°C	-20~55°C
Sample pressure	0~4.0MPa	0~4.0MPa	0~4.0MPa	0~4.0MPa	0~4.0MPa	0~1.0MPa	0~1.0MPa	0~1.0MPa
Range	0.1~100%	0.1-100%	0.02-10%	0.1-100%	0.01-10%	0-570ppm	ppm-4%	ppb-100%
Resolution	0.05%	0.05%	0.02%	0.1%	0.01%	1% reading	1% reading	1% reading
Repeatability	+/-0.1% or 0.1%FS	+/-0.1% or 0.1%FS	+/-0.05% or 0.1%FS	+/-0.5~1% or 0.1%FS	+/-0.02% or 0.1%FS	2% reading	2% reading	2% reading
Advantage	Versatile Simple set Well EMC	Versatile, for viscous Small flow resis.	High resolution Well EMC	High moisture Average sampling	Stable low moisture for crisis conditions	Trace detect	Low range	Trace detect
Application	Anywhere	Anywhere	Oil Union out Process	Well field Union input	Oil gauge Process	Light oil, mild solvents	Any liquids if transparent in NIR;	Any liquids if transparent in NIR

* Position is described relative to earth. Horizontal is ok too if there is less bubbles inside of flow

Sample Feature's Guide



Model Type	Insert MS1204pp	Insert MS1204pc	Insert MS1204pm	Flow throw NS1204H	By flow MS1204BF	Insert MS2100	Sampling MS4120	Sampling MS4810
Trace water			D		C	A	B	A
Low range	D	E	C	F	B		A	A
Middle range	B	A	C	D	E			A
High range	D	C	B	A	E			A
High EMC	B	D	C	E	A			A
High viscous	D	A	C	B	E		C	C
Not uniform	D	C	B	A	E		C	C
Salt various	B	B	B	B	B	C	A	A
Bubbles	B	B	B	B	B	A	C	C
Suspended	B	B	B	B	B	A	C	C
Composition various	C	C	C	C	C	B	A	A

* A,B,C=best;worse,

System Configuration

Field Units	Remote Signal	Meters	Design	Evaluation
T-BD5xS+MS	0/4 to 20 mA	Digitalizer	General application	Economic
T-BD5xS+MS	RS485 /Scom	PBD4	Special appli. Sys only	Data acquisition
T-BD5xMD+MS	0/4 to 20 mA	Digitalizer	General application	Economic
T-BD5xMD+MS	RS485/STIMcom/Modbus	PBD4N	Professional	Network Controller

[For more detail materials, contact us freely please ☺](#)



For quick selection of moisture measuring system by application, refer to <Application Guiding>.

URL : http://www.fullsense.com/Products/Moisture/liqMoisture/liqMS_AG_E.htm

Browse the moisture technological products

URL : <http://www.fullsense.com/Products/Moisture/liqMoisture/liqMSIntE.htm>

Further Information about BD4/5xC electronics, please refer to:

URL : <http://www.fullsense.com/Products/Meters/>

For system design and configuration, Refer to:

URL : http://www.fullsense.com/Products/Moisture/liqMoisture/liqMS_Cfg_E.htm

To lean information of moisture detecting technology, refer to:

URL : http://www.fullsense.com/Products/Moisture/liqMoisture/liqMS_TB_E.htm

If you need help from our specialist, please down load the <User application data from>

URL : http://www.fullsense.com/Products/Moisture/liqMoisture/IMS_AS_E.htm [.doc]

BigDipper TechnoChem Institute

Call: 86-10-8264.0226; Fax: 86-10-8264.0221; 8264.0238;

P.o.Box: 603 BDTI Beijing, China 100080

Email: sales@fullsense.com Web: <http://www.fullsense.com>