



MS1204H Flow through Sampling Series

Chemical Instrument

Moisture Transducer

High Water Cut Meter

V2011-11-03

___ Range 0-100% , for high range and sticky oil moisture detect

Features

- High sensitivity over wide range
- Simple pipeline flange connect
- High on-line accuracy and repeatability
- No moving parts - no maintenance

Application

- Special to high moisture application or those not uniform of water distribution.
- Well outlet
- Gauge station



Specification

Transducer

Parameter	Middle range	Full range	High range
Range	0-reverse point(~70%)	0-100%	O/W (~70-100%)
Accuracy	±0.5%	w/o:±0.5%; o/w: ±1%;	±1%;
Repeatability	±0.1%	w/o:±0.1%; o/w: ±0.5%;	±0.5%;
Resolution	<0.1%	<0.1%	0.1%

Total length: 790-1215mm;

Weight:: ~40 kg

Wet Materials: SS, PAA; Optional by order

Class of safety protection: Intrinsic safety

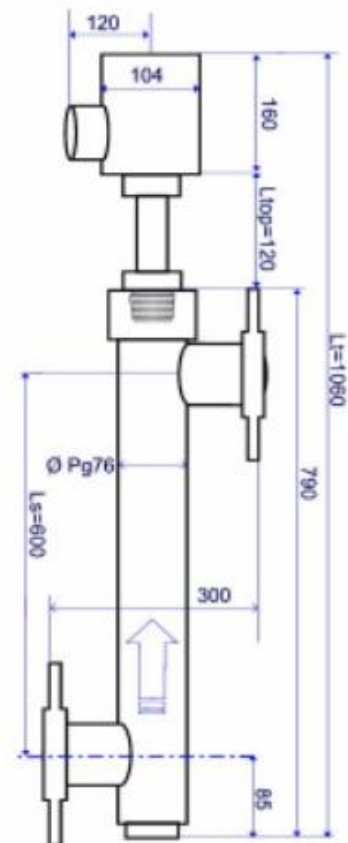
Safety Certification: Ex ia

Environmental Rating: Class 1,Group A/B/C/D(PL); Class II,Group E/F/G(AL);

NEMA 7, with BDxM, PL; NEMA 8, with BD5xM,PL; NEMA 9, with BD5xM,AL

Application Requirement: Crude oil before separated into water and oil

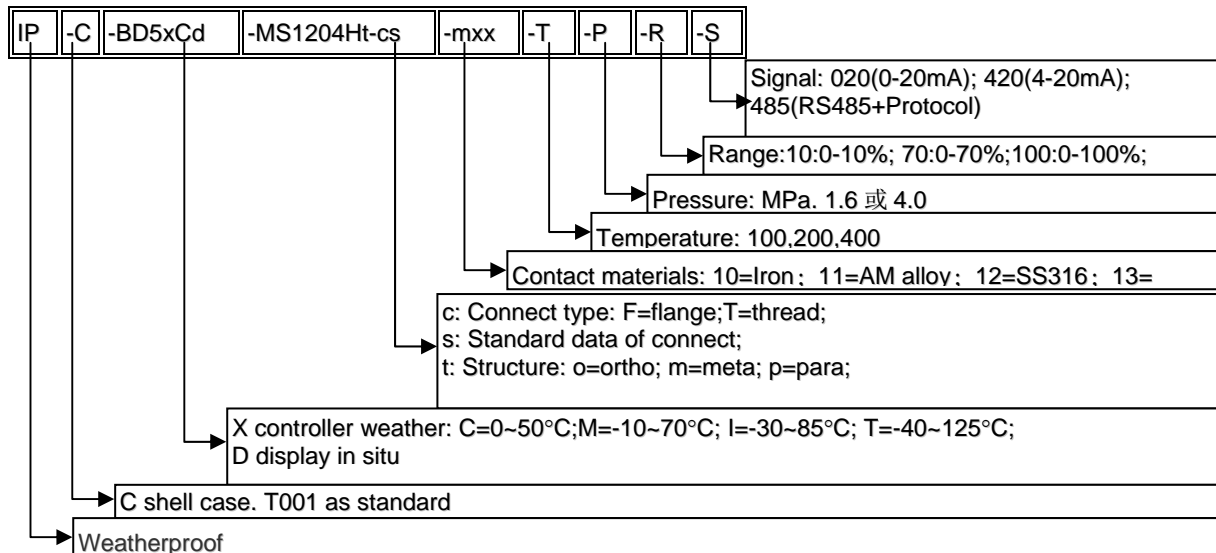
Extended temperature and pressure range instruments available by order.



Sensor Size:

No		Min Dn	Ls	Lt	Lb	Flange size	Weight/kg	
1	1 1/2"	38	540	1060	150	165		standard
2	2"	50.8	540	1060	150	185		
3	3"	76.2	747	1262	185	200	40	
4	4"	101.6	954	1495	216	250		

Standard Model:



Degrees of protection provided by enclosures:

IP65 or user specified

Shell case:

T001: standard, support to IP65 and Class 0; Aluminum.

Connection: DN50PN1.6MPa standard. Flange stand could be specified by user.

Sample temperature durability:

T100	-40°C to 100°C	Standard
T200	-40°C-200°C	
T400	-40°C-400°C	

Sampling pressure: 1.6MPa (standard) , 4.0MPa by order.

Range: 0-100% standard.

Connection: PN1.6DN(1 1/2") flange (Oil Industrial Standard China) as standard. Other type by order.

Signal Processor

Processor Unit: BD5xM / BD5xMD (Included)

Power Supply: 9-24 v DC. @ 50mA

Analogue Output: 0/4 - 20mA, Fully configurable, representing setup

Communication: RS232 & R485, IEEE1451.2 STIM, STIMcom/ ModBus support

Alarm/Switch: one isolated voltage free contact, 1 5V switch control

Optional:

Remote operator: BD4CCD Controller: Human interface by field bus

Remote Indicator: XM Digitalizer

Power supply regulator: 9-24V DC regular

Application Note

1. Install the sensor near the outlet of the well pump as close as possible.
2. If environ temperature too low than that of the flow, please build heat insulation to protect the sensor body from heat dissipation.
3. MS1204 tech moisture sensor is not sensitive to oil pressure. but stable pressure is good for high resolution detect.
4. Salinity is the common problem to this kind of technology, suggest user calibration by sample at field, it is the most reliable method to assure the high accuracy.
5. Otherwise environ temperature should be taken care, especial for outdoor installation. It is recommended to select MC or IC industrial level transducer to keeping proper working. For over low temperature circumstance installation, a small PCB heater could be ordered. DC heating power <100W. (note the explosive-proof degree would be reduced to isolated safety).
6. Space <300mm beyond transducer should not be obstacles.

BigDipper TechnoChem Insitute

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

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For quick selection to moisture measuring system, refer to <Selection Guiding>.

URL : http://www.fullsense.com/Products/Moisture/liqMoisture/LiqMS_SG_E.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

For more details for selection, Refer to

URL: http://www.fullsense.com/Products/Moisture/liqMoisture/LiqMS_Sel_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]