



Chemical Instrument

Process Liquid Density Transducers
IEEE1451.2 STIM
TBD5DS1741 VrLP

Densitometer

Ref: DS1741IntE
Version:2002-01-13

Based on BigDipper's ultra sonic vibration, the 1741 family of Liquid Density Transducers are well established as the industry standard for on-line applications, feature a unique single insertion design. The DS1741 transducer can be inserted into a tank or pipeline. Which use a measurement technique based on a vibrating element - can handle liquids and slurries, and provide continuous, accurate instantaneous measurements.

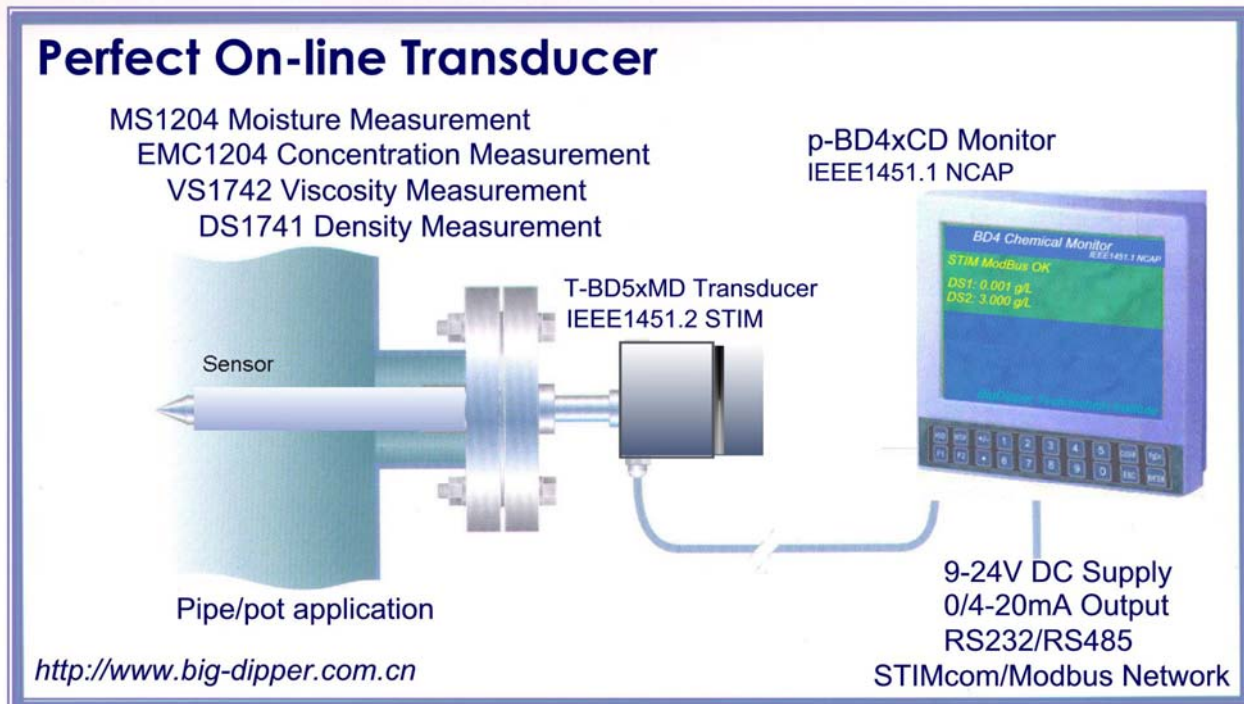
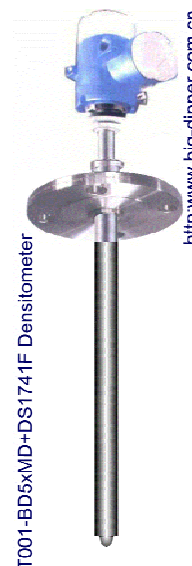
The new T-BD5-DS1741 digital insertion density transmitter offers a direct 4-20mA output of line or base density, or other selectable density-based values. and as well serial port to communication.

Features

- Smooth insertion structure reduces pressure drop, minimizes maintenance
- No moving parts or seals
- Unaffected by vibration
- Insensitive to flow and pressure variations
- Wide range of materials available to suit most applications
- Approved for use in hazardous areas

Typical applications

- Fiscal metering
- Slurries
- Food processing
- General chemicals
- Hydrocarbons
- Resource management



Typical measurements

- API degrees
- Absolute and Referred Density

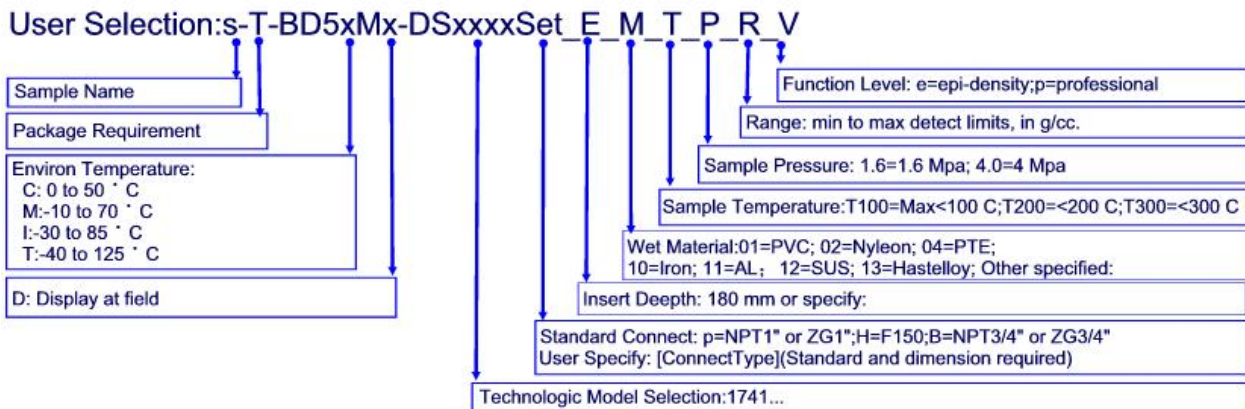
- Concentration by mass or volume

Advanced Density System

- High acknowledged BD4 processor has significantly expanded the application of liquid density measurement.
- Lower cost installation
- Industry standard communication
- Direct analog and digital outputs
- Remote display option for local analysis or set-up
- Modular upgrade and expansion

Specifications

Density operating range:	0 to 3g/cc (0 - 3000kg/m3)
Calibrated range:	0.6 to 1.25g/cc (600 - 1250kg/m3)
Accuracy:	0.0005g/cc (0.5kg/m3)
Repeatability:	0.0001g/cc (0.1kg/m3)
Temperature range (fluid):	-50 to +120,250,400 °C
Viscosity range:	up to 20,000cP
Max. pressure:	20.0MPa
Analog output:	
4-20mA analog output:	self-powered
Accuracy:	0.025%FS @20°C
Repeatability:	0.05%FS over range -40 to +85°C
RS232/485 Interface:	STIMcom/Modbus (Modicon)
Environment:	IP66
Power Supply:	9 to 24Vdc, 100mA
Safety approvals:	EEx d IIc T4 CSA Class 1, Division 1, Group C (pending)



Wetted materials:

Stainless steel, Hastelloy C

Tine finish:

Standard, PTFE coated or Electropolished

Connections:

ANSI 150 to 1500RF; DIN 50 PN40 and PN100 1.5" compression; IDF and RJT hygienic

Working Principle:

Ultra sonic vibration density technology

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