

DP 20T / NON CLOGGING DIFFERENTIAL PRESSURE TRANSMITTER

FEATURES:

- Solid-state micro machined sensing element
- Temperature compensated, operate at temperatures up to 450F
- Accurate and repeatable 4-20mA output signal
- Heavy duty body prevents errors from mounting stress

APPLICATIONS:

- Ideal for Bag-houses, cartridge filters and cyclones
- Wet/Wet design for scrubbers and mist eliminators
- Static measurement for powder and solid flow pipes
- Intrinsically-safe version for hazardous locations
- 3A Sanitary rating for Food and Pharmaceutical industries

BENEFITS:

- Replace photomechanical/helical devices that clog
- Record differential pressure to meet EPA Regulations
- Ensure reliable pressure activated filter cleaning
- Integrate with Dust Emission monitors to optimize filter cake and maximize filtration efficiency

Performance & Reliability
GUARANTEED



GENERAL

The DP20T is a heavy duty, maintenance free low pressure transmitter designed for fabric filters, cyclones, powder processes and low pressure particulate laden pipes. The unique flush/ported design enables configuration for either differential or static movement. The ability to transmit accurate measurements below 10 W.C., over a broad temperature range without clogging, makes the DP20T the ideal replacement for mechanical or helical devices.

For differential measurements the flush diaphragm is mounted to the dirty or wet side of a process, such as the inlet of a dust collector, wet scrubber or mist eliminator. The port is used to route tubing to the cleaner side of the process such as the clean side of a dust collector or mist eliminator. For static measurement, such as in a powder conveying pipe, the port is simply vented to atmosphere.

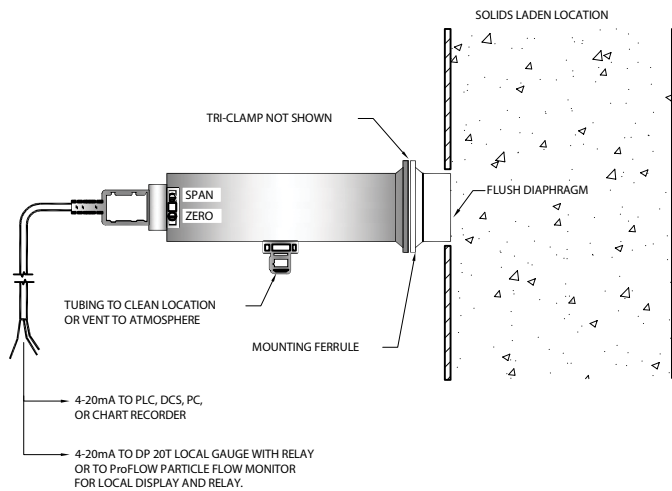
Standard output is a 4-20mA signal for connection to a PLC, DCS, PC or chart recorder. For local display and relay control, a programmable panel mount LCD gauge is available (consult factory).

PRINCIPLE OF OPERATION

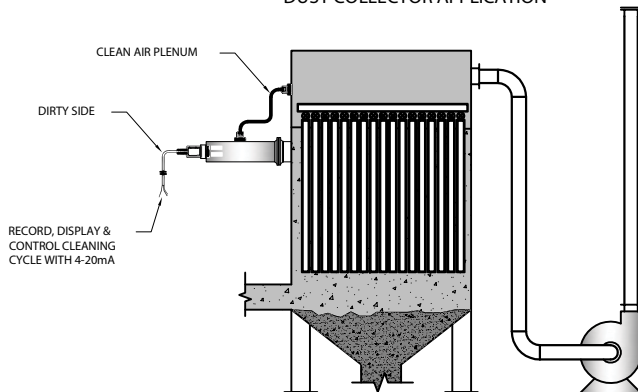
The DP 20T uses a state-of-the-art micro machined sensing element with temperature compensation packaged in a heavy duty stainless steel body. Changes in process pressure or vacuum applied to the diaphragm cause deflection in the sensing element. A precise, linear 4-20mA output signal proportional to the pressure or vacuum is produced by the circuitry.

DP 20T Non Clogging Differential Pressure Transmitter

NON-CLOGGING TRANSMITTER



DUST COLLECTOR APPLICATION



Configuration and Ranges

Configurations: Differential Wet/Wet
Static Wet/Wet
Ranges: 0 - 10" WC standard
other optional
Action: Positive at diaphragm
Negative at diaphragm
Bi-directional, optional
Proof Pressure: 50" WC for 0-10" WC range
Higher consult factory

Process Compatibility and Temperature

Sanitary Rating: 3-A #37-01, optional
Process Media: Wet/Wet design is
compatible with most
gases and fluids
Temperature: -20 to 280F, standard
-20 to 450F, optional

Accuracy and Performance

Total Error, Diaphragm at 200F: <1.5% FS
Total Error, Diaphragm at 280F: <3.0% FS
Based on zeroing at ambient. Zeroing at
temperature reduces error.
Response Time: 500 microseconds
Resolution: Infinite
Orientation Sensitivity: 0.03 psi/G

Electrical

Supply Voltage: +13 to 32VDC
Connection: 1/2 NPT exit with 5' cable
Load Impedance: 950 ohm at 32VDC
Output: 4-20mA
Intrinsic safety: Consult factory
Explosion-proof: Consult factory

Mechanical

Diaphragm: Polished 316L SS, other opt
Case Material: 304L SS, other optional
Fill Material: NEOBEE M-20
Housing: NEMA 4X equivalent
Mount: Tri-clamp flange
Port Connection: 7/16-20 UNF
Weight: 16 oz.

Installation Kit

Includes: Mounting ferrule
Tri-clamp & gasket
Differential port connectors
10' Differential port tubing

Distributed by:

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