

***MEASURING FLUID FLOW
ACROSS ORIFICE PLATES***

PRESSURE MEASUREMENT

Scanivalve

GENERAL DESCRIPTION

One easy method to measure fluid flow in a pipe is by measuring the pressure drop across orifice plates. Scanivalve's line of intelligent pressure scanners are well suited for making multiple differential pressure measurements in liquid or gas media.

GAS MEASUREMENT

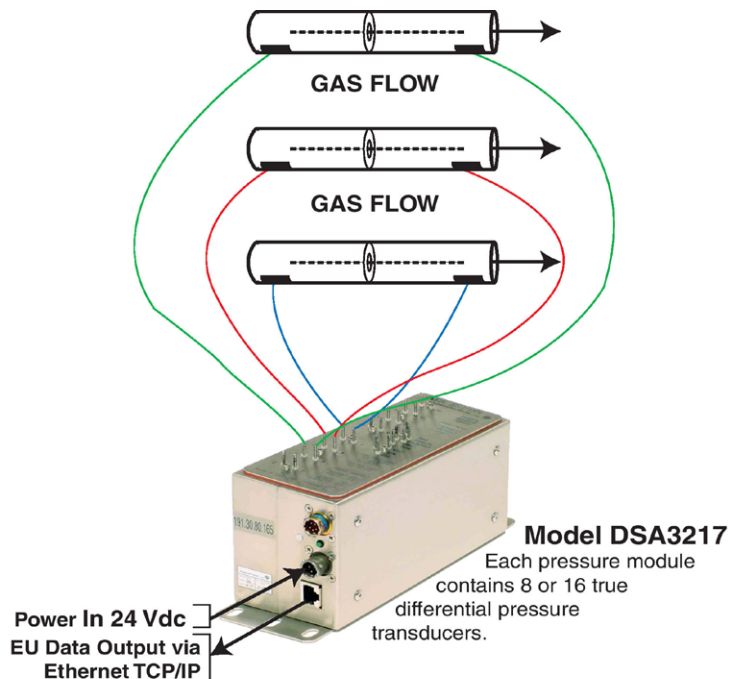
Gas measurement fluid flow is accomplished in multiple pipe measurements by using a true differential DSA3217 or DSA3218 pressure modules. These rugged pressure modules incorporate 8 or 16 temperature compensated pressure transducers with discreet reference inputs.

These pressure transducers are incorporated into a splash resistant stainless steel box along with a 16 bit A/D, microprocessor, and calibration valve. Integrating the pressure sensors with the microprocessor makes the modules an efficient self-contained pressure data acquisition system.

The DSA module outputs engineering units via TCP/IP or UDP on an Ethernet network. This digital approach eliminates many analog wires and signal conditioners as well as possible noise problems.

The DSA3217/8DPx-xxpsid uses 8 each 1/16 inch stainless steel tubulations for pressure connections.

The DSA3218/8DPx-xxpsid uses 8 each 1/16, 1/8, or 1/4 inch steel Swagelok compression fittings. A DSA3218/16DPx-xxpsid is available with a circular connector.

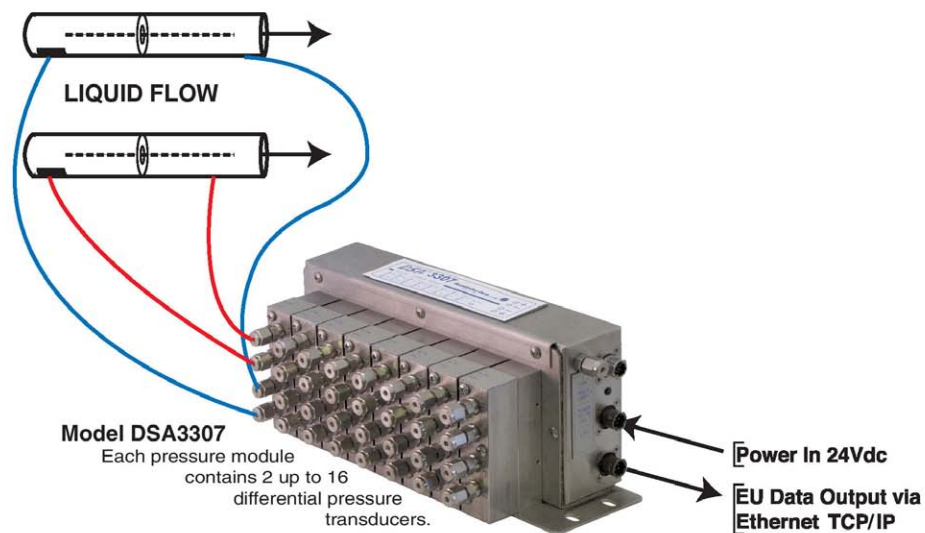


LIQUID MEASUREMENT

When liquid flow requires measurements across an orifice, use the Scanivalve DSA3307 pressure module. It is available with 2 up to 16 differential pressure transducers (wet/wet).

Pressure inputs are 1/8 inch steel Swagelok compression fittings. These transducers have a stainless steel diaphragm that is in contact with the liquid media on both sides of the transducer. One pressure transducer measures the differential measurement across the orifice plate.

A shunt purge screw can be opened to purge gas bubbles from the liquid lines for improved measurement accuracy.



COMMUNICATIONS

The DSA3200/3300 series intelligent pressure modules communicate through industry proven Ethernet TCP/IP or UDP. Communication can also be made directly with ASCII commands via Telnet, our LabVIEW driver, an OPC server, or our free ScanTel software. Operation is controlled via a data acquisition system, network, or PC.

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