

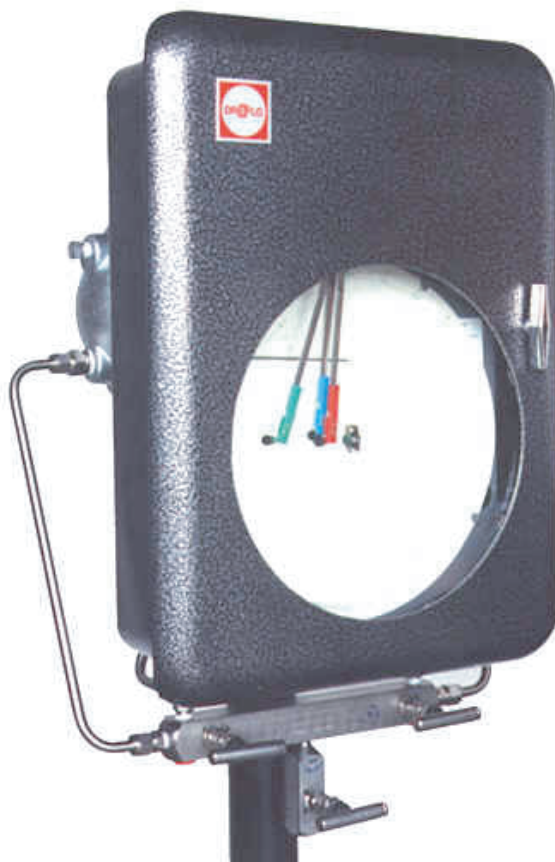


**Recording Orifice Meter
MODEL 25FS**
Product Bulletin 25FS-002

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The Dri Flo II model 25FS recording orifice meter is used for the accurate measurement of flowing fluid, including wellhead and pipeline gas, as well as liquid or steam. It operates by measuring the differential pressure of the fluid across an orifice plate, venturi or flow nozzle. It can also measure tank liquid level by measuring the hydrostatic head pressure created by liquid.

The recorder is available in flow configurations up to 400"W.C.(mBar or kPa also available) and pressure configurations up to 2500 psig for flow recording. Temperature ranges up to 600 Degrees F are available.



- DIRECTLY records differential and static pressures and temperatures – no external transducers required.
- Rugged Die Cast Aluminum case.
- Uses standard 12" circular charts and pens used by all major brands of recorders.
- Can be outfitted with automatic chart changer.

Peterson Instruments
Complete Instrumentation Solutions

DIFFERENTIAL PRESSURE BELLAWS

The differential pressure unit for the Dri Flo II recorder consists of a pair of rupture proof bellows attached to opposite sides of a forged and cadmium plated C1025 steel centerplate. The two bellows units are attached, transferring pressure changes from side to side via a center connecting post. The internal volume of the two bellows units and centerplate is filled, under vacuum, with clean, non-corrosive low freezing point liquid. The center connecting rod actuates a rotational torque tube, which extends into the back of the case, transferring this motion to the differential pressure pen on the chart. Process pulsation is regulated by an internal needle valve that controls the fluid flow from side to side thus regulating the effects of pulsation on the chart. Temperature compensation is achieved by two 'floating' convolutions on the high pressure side of the DPU absorbing the expanding and contracting fill fluid. Negative feedback is provided by a range spring which is indicative of the maximum range the DPU can sense. Ranges of 0-20" W.C. through 0-400" W.C. In five different units.

STATIC PRESSURE ELEMENTS

Static elements are precision-wound helical in nature to produce a high degree of accuracy, power and repeatability. Materials available: 316 SST and Monel (special order). Available in ranges of 25psig to 2500psig, all ranges have mounting arrangements that are interchangeable with one another. Please call about the stainless steel bellows for sensing pressure lower than 25 psig.

THERMAL SYSTEMS

The temperature element consists of a precision-wound bourdon tube, armored capillary tube, and sensing bulb. All parts are stainless steel and factory sealed. This high accuracy element is available in numerous ranges, and type VA or VB configurations with VB standard. 15 ft long capillary is standard with other lengths available on request.

CHARTDRIVES

DC powered intrinsically safe electric version with 11 switch selectable speeds is standard. Mechanical chartdrives are available with various rotation speeds. All are provided with a chart hub providing a simple but positive chart lock.

CASE

The DFII recorder case is NEMA 4X weatherproof, made of die-cast aluminum with polyurethane 'silver-vein' powder coat for high resistance to weathering, scratches, and industrial fumes and liquids. The door is attached to the case with an aircraft type Stainless steel hinge. A closed cell neoprene gasket provides seal between door and case while being non-absorbent to fluids and resistant to solvents, oils and petroleum products.

CHARTS AND PENS

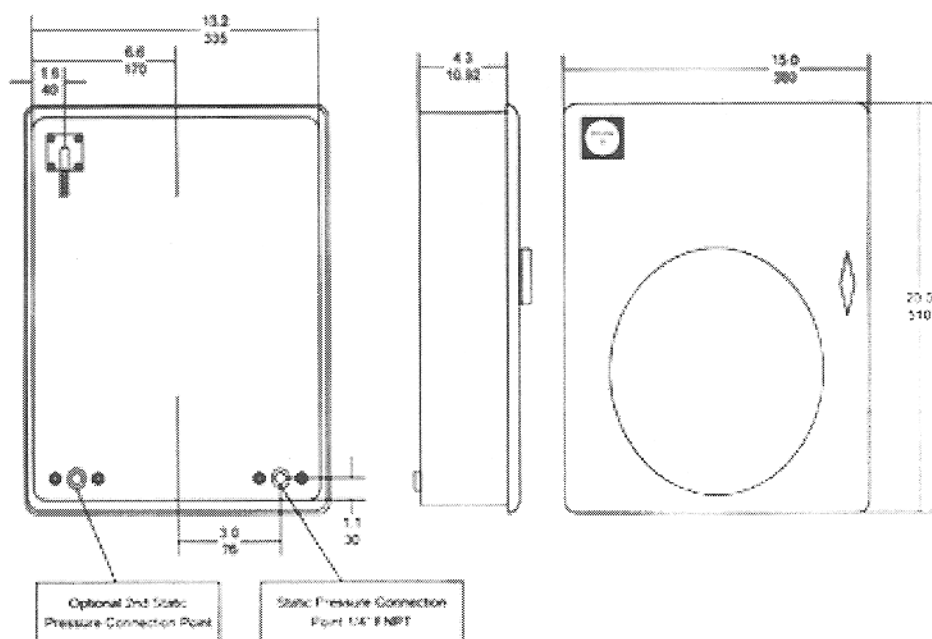
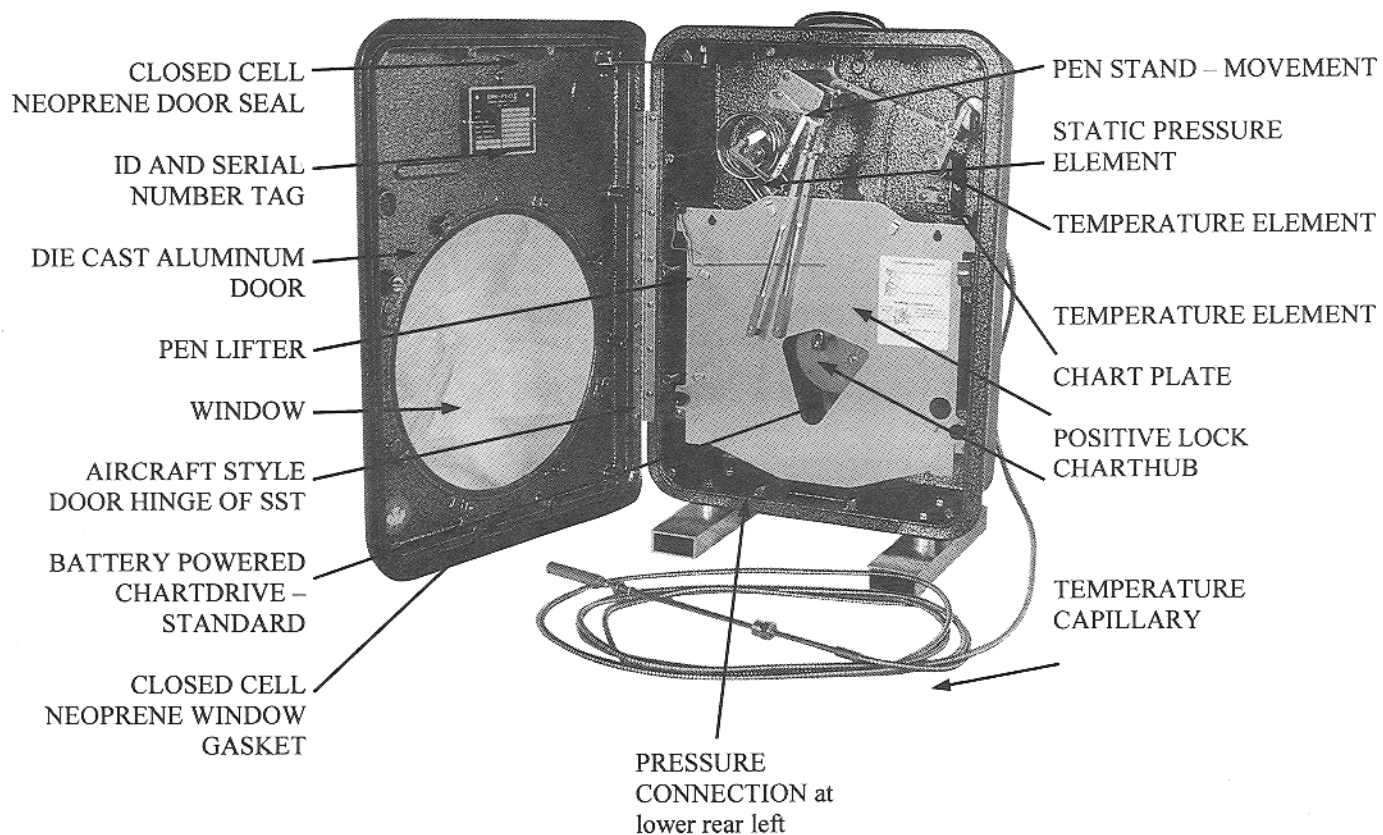
Dri Flo II recorders come complete with one box of 100 charts with each recorder. The standard pens we supply are the fibre tipped disposable type. Standard ink colors are: blue, red, and green, other colors are available. Refillable pen types are also available call for details.

RECORDING MECHANISM

All parts of the recording mechanism are made of stainless steel or corrosion resistant anodized aluminum for long operating life under tough field conditions. The pen stand and all linkage transfer points use ball pivots for minimal friction and maximum durability in vibratory field applications. All links allow linearity adjustments using a flat screwdriver. All drive arms and pen zero adjustments are micrometer adjustable using knurled thumb screws with flathead lock screws to ensure the recorder calibrates quickly and easily and stays in calibration for extended periods of time.

OPTIONS:

- Carbon and stainless steel manifold in 3 and 5 valve configurations are stocked standard accessories.
- Mechanical chartdrive in speeds of 4 hours to 31 day in various models - 11 speeds DC battery powered standard.
- Chart-o-matic chart changers available.
- Pressure Isolation needle valves available in SST and cadmium plated carbon steel.
- Standard temperature capillary length is 15 feet. Other capillary lengths available.
- Standard temperature range is 0-150°F. Other temperature ranges available.
- Class VB standard class VA optional.
- Thermowells available for various pipe lengths and process connections sizes and styles- in 316 SST.
- Solid or lexan door window available



SPECIFICATIONS*

ACCURACY	Differential pressure unit: 0.5 % of full scale Static and temperature elements: 1% of full scale
REPEATABILITY	0.1% of scale
DIFFERENTIAL PRESSURE UNIT (DPU) RANGES	0-20"W.C., 0-50"W.C., 0-100"W.C., 0-200"W.C., 0-400"W.C..
MAOP FOR THE DPU	2500 psig 1850 for H ₂ S service.
STATIC PRESSURE RANGES	0-25, 50, 100, 200, 250, 300, 500, 750, 1000, 1500, 2000, 2500 psig.
PRESSURE RANGES AVAILABLE IN UNITS OF	PSIG, PSIA, kPa, Bars, and mBars.
TEMPERATURE RANGES	0-150 Deg F other ranges include but are not limited to: 0-200, 0-300, 0-400, 0-500, 0-600 Deg F
TEMPERATURE RANGE LIMITS	Class VA: -40 to +600 °F Class VB: -40 to +600 °F
AMBIENT TEMPERATURE COMPENSATION	VB case compensated standard, VA fully compensated.
CHART SPEEDS WITH STANDARD CHARTDRIVE – CDS-820R011	60 min, 96 min, 12HR, 1D, 2D, 7D, 8D, 14D, 16D, 31D, 32D — call for other ranges available in various mechanical and DC powered chartdrives.
CASE AND DOOR MATERIALS	Die Cast Aluminum powder coated and baked with polyurethane powder coat.

When ordering please specify:

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| <ul style="list-style-type: none"> ➤ <u>Differential pressure range.</u> ➤ <u>Service application:</u> Standard or corrosive. ➤ <u>Pressure element:</u> range. ➤ <u>Temperature Element:</u> case or fully compensated, capillary length and range. ➤ <u>Thermowell</u> (if necessary): pipe or vessel size, process connection size. | <ul style="list-style-type: none"> ➤ <u>Chartdrive type:</u> if other than battery programmable ➤ <u>Needle Isolation Valve (s):</u> Carbon or Stainless Steel. ➤ <u>Accessories:</u> mounting saddle, manifolds – 3 or 5 valve, CS or SST. ➤ <u>Pens:</u> v-tip or capillary (if other than disposable.) |
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The Dri Flo II standard warranty is available for inspection upon request.



Your Local Representative is:

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*: Specifications subject to change without notice please call for the latest revisions.