Diagnostic Products

SensorControl® ServiceMaster™

Schematic

Description
The SensorControl® Generation II flow sensors are a compact light weight aluminum diagnostic tool capable of measuring pressure, temperature, flow and rotational speed for hydraulic systems. These Generation II flow sensors are designed to be used with a wide variety of hydraulic fluids. This design also minimizes the effect of viscosity changes. These units are manufactured from solid aluminum bar stock and are rated to 5800 PSI and temperatures of -4°F to +350°F. They are available in four sizes with flow measuring ranges from 0.25 – 160 GPM.

Generation II flow sensors are designed to be used with all SensorControl and ServiceMaster™ equipment.

Technical Data

<table>
<thead>
<tr>
<th>Pressure Rating</th>
<th>Flow Range</th>
<th>Ambient Temperature</th>
<th>Media Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>5800 PSI</td>
<td>0.25 to 160 GPM</td>
<td>-4°F to +350°F</td>
<td>Petroleum Based Fluids</td>
</tr>
<tr>
<td>3500 PSI</td>
<td>0.25 to 80 GPM</td>
<td>-4°F to +350°F</td>
<td>Petroleum Based Fluids</td>
</tr>
<tr>
<td>2000 PSI</td>
<td>0.25 to 40 GPM</td>
<td>-4°F to +350°F</td>
<td>Petroleum Based Fluids</td>
</tr>
<tr>
<td>1000 PSI</td>
<td>0.25 to 20 GPM</td>
<td>-4°F to +350°F</td>
<td>Petroleum Based Fluids</td>
</tr>
</tbody>
</table>

Material Specifications
Flow Block: 2004 T651 Anodized Aluminum
Turbin, 416 Stainless Steel
Bearings: Stainless Steel
Seal Material: Graphite
Electrical Connection: 5 Pin Lenslock

Accessories

Temperature Sensor (Encapsulation) S10-189-7180
Flow Block...............................2024-T351 Anodized Aluminum
Turbine, 416 Stainless Steel
Bearings: Stainless Steel
Seal Material: Graphite
Electrical Connection: 5 Pin Lenslock

Performance

<table>
<thead>
<tr>
<th>Flow (USGPM)</th>
<th>Pressure Drop (psid)</th>
<th>Temperature</th>
<th>Power Select Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>500</td>
<td>80°F</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>100</td>
<td>120°F</td>
<td>2</td>
</tr>
<tr>
<td>100</td>
<td>200</td>
<td>160°F</td>
<td>3</td>
</tr>
</tbody>
</table>

The new ServiceMaster™ meters are the perfect tools to capture diagnostic measurements at remote locations. Also, non to these meters are the functions for calculating power and flow cut-out.

The newly designed meters offer a dramatic increase in data storage capability. The SCM-350 offers 125,000 data points and the top-of-the-line SCM-450 now offers 200,000 data points of storage. These meters come with a printer and large automatic scaling LCD display makes it easy to use in even the most demanding environments.

As with all SensoControl equipment, the ServiceMaster™ offers the latest in sensor recognition technology, eliminating the time consuming task of programming each individual sensor. This technology allows you to just plug in the sensor, and the unit is ready to take real time measurement.

Quick Coupling Division
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### Output Signal
- DC Voltage: 0 – 3 VDC

### Measuring Distance
- 0.1 – 19.5 inches

### RESET
- Selection menus and graphics.

### Sensors
- SCRPMA-002 Focus adapter for SCRPM-210 tachometer
- SCRPM-220 Tachometer to be used to measure rotational speed (0 to 10,000 RPM)
- SCK-313-02-31 Data cable between the RS232 meter port and a PC
- SCN-100 120 Volt AC power supply for thermal printer
- SCG-022 Replacement paper for thermal printer SCPR-100-1-01
- SCM-350-1-01 ServiceMaster hand-held meter, 3 Inputs, 125,000 data points
- SCK-102-02-02 1/8 inch and 1/4 inch extended cable (10 meter)
- SCK-102-05-02 1/8 inch and 1/4 inch extended cable (5 meter)
- SCPR-100-1-01 Thermal printer to be used with ServiceMaster 350/450 meters
- SCK-102-03-12 1/8 inch and 1/4 inch extended cable (12 meter)

### Measuring Range (Temp.)
- 13° to 221°
- -40° to 257°

### Output Value
- Frequency range 0.5 Hz to 30 kHz
- Resonant frequency 100 Hz
- Load <2m ohms
- Response time <1 ms
- Permissible ripple ±2% ss
- 7 to 12 VDC excitation voltage
- 3 or 6 5-pin Lemosa connectors
- Display of Pressure, Temperature, Flow
- Automatic Character Height Scaling
- Adjustable baud rate
- Internal 7.2-volt rechargeable battery
- 125,000 data points (SCM-350)
- 250,000 data points (SCM-450)

### Accessories
- Printer Interface Cable
- Test Meter and Printer Kits
- ServiceMaster™ 350 Meter/Printer Kit
- ServiceMaster™ 450 Meter/Printer Kit

### Specifications
- Burst Pressure
  - 650 PSI
  - 7250 Bar
  - 26100 PSI
  - 26100 Bar
- Temperature
  - 7 to 12 VDC excitation voltage
  - 9.1 to 28.6 VDC
- Power calculation (display only)
- Manual and automatic triggering
- Auto power off
- Auto power on
- Auto power off
- Auto power on
- Display of Pressure, Temperature, Flow
- Automatic Character Height Scaling
- Adjustable baud rate
- Internal 7.2-volt rechargeable battery
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