

# Diagnostic Products



## Diagnosics – A Wise Investment

**When time is money...** In today's "Lean" environment there is more emphasis put on increased production and reduced downtime than ever before. You can't afford to have your equipment sitting idle. Momentary pressure spikes and flow surges that are not recognized by other conventional mechanical measuring devices can unexpectedly destroy both components and systems.

**An ounce of prevention...** Diagnosing a problem before it occurs should be your primary objective. Whether it is a piece of mobile construction equipment, or an automated industrial assembly machine, lost production is lost profits. The basic prescription for system maintenance is prevention.

**Hydraulic and pneumatic...** Parker's SensoControl product line is a valuable tool for diagnosing problems both before and after they occur. Today's hydraulic and pneumatic systems are continuously becoming more sophisticated. Being able to identify critical information for optimizing machine efficiencies is a necessity.



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**Meter Selection Guide**

	The Parker Service Junior	The Parker Serviceman Plus	The Parker Service Master Easy	The Parker Service Master Plus
Pressure Sensing	■	■	■	■
Flow Sensing		■	■	■
Temperature Sensing		■	■	■
Rotational Speed Sensing		■	■	■
Auxiliary Sensing		■	■	■
Pressure Differential		■	■	■
Automatic Sensor Recognition		■	■	■
Frequency Sensing		■	■	■
Auto Power Off	■	■	■	■
Battery Monitoring	■	■	■	■
Battery Type	AA (2 req'd)	Rechargeable LI-ion	Rechargeable Ni-MH	Rechargeable LI-ion
PC Compatible (Windows 7)		■	■	■
Minimum/Maximum Memory	■	■	■	■
Self Contained Memory		■	■	■
On-Line Data Transfer		■	■	■
Text Display (Lines)	2	4	8	48
Inputs	1	2-3	4	26
Data Points (Maximum in Memory)		270,000	1,000,000	1,000,000,000
Numbered LCD Display	■	■	■	■
Basic Hydraulic Calculations		■	■	■
USB Interface		■	■	■
CAN Sensors		■		■
Graphic Color Display				■
Additional Storage Media		■		■

The Parker Serviceman Plus, Parker Service Master Easy and the Parker Service Master Plus require the appropriate sensors to perform measurement functions.

**Test Port Coupling Selection Guide**

Test Port	Valving Style	Body Size	Material*			Locking Mechanism	Standard Seal Material	Rated Pressure	Temp Range**
			Br	SS	S				
<b>PD Series</b>	Flush Face	1/8"	■	■	■	Ball	Nitrile	6000 psi	-40° to +250° F
<b>PDP Series</b>	Ball (Nipple only)	1/8"	■	■	■	Ball	Nitrile	6000 psi	-40° to +250° F
<b>EMA3 Series</b>	Poppet	1/8"	■	■	■	Threads	Nitrile/Fluorocarbon	9000 psi	-15° to +250° F

\* See Fluid Compatibility chart and/or consult QCD for questions regarding proper material for specific applications.

CODE: Br = Brass; SS = Stainless Steel; S = Steel

\*\* Temperature Range for standard seal material



The Parker ServiceJunior is an integrated digital pressure gauge with minimum/maximum memory capability.

**Capabilities:**

- Hand held digital pressure gauge
- Measure and Display  
-Pressure

**Features:**

- Easy operation
- Backlit display
- User-adjustable pressure units
- Min/Max memory
- Battery life indicator applications
- Ranges for hydraulics and pneumatics
- Scanning rate of 10ms
- Fluid temperature: -4° to 176° F
- Colored covers correspond with pressure ranges for easy identification

**Cover Color Code**

Blue	-14.5 to 230 PSI (-1 to 16 bar)
Green	0 to 1500 PSI (0 to 100 bar)
Orange	0 to 5800 PSI (0 to 400 bar)
Red	0 to 8700 PSI (0 to 600 bar)

**Part Numbers and Specifications**

ServiceJunior with PD Coupler	ServiceJunior with EMA3 Coupler	ServiceJunior with 1/4" NPT Port	Measuring Range	Overload Pressure (psi)	Resolution (psi)	Accuracy
SCJR-0250-PD	SCJR-0250-EMA	SCJR-0250-4MP	-14.5 to 230 PSI (-1 to 16 bar)	580	0.1	0.5% FS
SCJR-1500-PD	SCJR-1500-EMA	SCJR-1500-4MP	0 to 1500 PSI (0 to 100 bar)	2,900	1	
SCJR-5800-PD	SCJR-5800-EMA	SCJR-5800-4MP	0 to 5800 PSI (0 to 400 bar)	11,600	1	
SCJR-8700-PD*	SCJR-8700-EMA**	SCJR-8700-4MP	0 to 8700 PSI (0 to 600 bar)	17,400	1	

\* PD Couplers rated to 6,000 PSI max

\*\* EMA3 Couplers rated to 9,000 PSI max

**Accessories**

Part Number	Description
PD240	PD Series Diagnostic Coupler
SCA-7/16-EMA-3	7/16 - 20UNF-2B female to M16X2.0 EMA3 female swivel
SCJA-1/4	7/16 - 20UNF-2B female to 1/4" NPT male adapter
PDH-19	19" PD Hose extension to be used with PD nipple
PDH-32	32" PD Hose extension to be used with PD nipple
SMA3-400	16" (400 mm) Hose assembly for EMA M16X2.0 interface
SCC-110	Storage case for one gauge and diagnostic adapters
SCC-300	Storage case for three gauges and diagnostic adapters



**PD Style Kits**

SCJR1-KIT-PD		SCJR2-KIT-PD		SCJR3-KIT-PD	
1	ServiceJunior Gauge: Range: 0 to 5800 psi (0 to 400 bar)	1	ServiceJunior Gauge: Range: 0 to 1500 psi (0 to 100 bar)	1	ServiceJunior Gauge: Range: -14.5 to 230 psi (-1 to 16 bar)
6	PD style JIC Tee Fittings 1/4 through 1 inch sizes	1	ServiceJunior Gauge: Range: 0 to 5800 psi (0 to 400 bar)	1	ServiceJunior Gauge: Range: 0 to 1500 psi (0 to 100 bar)
6	PD style ORFS Tee Fittings 1/4 through 1 inch sizes	6	PD style JIC Tee Fittings 1/4 through 1 inch sizes	1	ServiceJunior Gauge: Range: 0 to 5800 psi (0 to 400 bar)
1	PD style Whip Hose 32 inch (800 mm) length	6	PD style ORFS Tee Fittings 1/4 through 1 inch sizes	6	PD style JIC Tee Fittings 1/4 through 1 inch sizes
1	Case - includes 3 plastic storage compartments	2	PD style Whip Hoses 32 inch (800 mm) length	6	PD style ORFS Tee Fittings 1/4 through 1 inch sizes
		1	Case - includes 3 plastic storage compartments	3	PD style Whip Hoses 32 inch (800 mm) length
				1	Case - includes 3 plastic storage compartments

**EMA Style Kits**

SCJR1-KIT-EMA		SCJR2-KIT-EMA		SCJR3-KIT-EMA	
1	ServiceJunior Gauge: Range: 0 to 5800 psi (0 to 400 bar)	1	ServiceJunior Gauge: Range: 0 to 1500 psi (0 to 100 bar)	1	ServiceJunior Gauge: Range: -14.5 to 230 psi (-1 to 16 bar)
6	EMA style JIC Tee Fittings 1/4 through 1 inch sizes	1	ServiceJunior Gauge: Range: 0 to 5800 psi (0 to 400 bar)	1	ServiceJunior Gauge: Range: 0 to 1500 psi (0 to 100 bar)
6	EMA style ORFS Tee Fittings 1/4 through 1 inch sizes	6	EMA style JIC Tee Fittings 1/4 through 1 inch sizes	1	ServiceJunior Gauge: Range: 0 to 5800 psi (0 to 400 bar)
1	EMA style Whip Hose 32 inch (800 mm) length	6	EMA style ORFS Tee Fittings 1/4 through 1 inch sizes	6	EMA style JIC Tee Fittings 1/4 through 1 inch sizes
1	EMA style Union female to male adapter	2	EMA style Whip Hoses 32 inch (800 mm) length	6	EMA style ORFS Tee Fittings 1/4 through 1 inch sizes
1	Case - includes 3 plastic storage compartments	2	EMA style Unions female to male adapter	3	EMA style Whip Hoses 32 inch (800 mm) length
		1	Case - includes 3 plastic storage compartments	3	EMA style Unions female to male adapter
				1	Case - includes 3 plastic storage compartments

F Diagnostic



The Serviceman Plus is an extremely robust, portable and easy-to-use measuring device. With a scan rate of 1 ms and the ability to read pressure, flow, temperature and RPM, it is versatile for use with mobile and industrial systems.

Data can be conveniently saved to a removable nano USB stick or transferred through USB interface to a PC for further analysis with SensoWin software.

The Serviceman Plus is available in two designs. One with two inputs for analog sensors and the other with CAN interface for up to three CAN sensors.

**Capabilities:**

- Hand held diagnostic meter
- Measure and Display
  - Pressure
  - Flow
  - Rational Speed
  - Temperature

**Features:**

- Automatic sensor recognition eliminates troublesome and confusing set up
- Large back-lit display MIN/MAX memory and differential measurements
- Increased memory capacity with nano USB stick
- USB interface to PC for convenient analysis and documentation
- Robust design with IP67 rated protection
- Rear support for free-standing operation
- Scan rate of 1 ms

**Serviceman Plus Technical Data**

Interfaces	Battery
<ul style="list-style-type: none"> <li>• USB device: Online data transfer between device and PC via SensoWin Software: measured value transfer: ACT/MIN/MAX, min. 5 mns; USB standard: 2.0, full speed; connection assembly: Micro USB socket, protected, type B</li> <li>• USB host: Connection of USB memory stick, max. 4 GB; recommended types: Delock USB 2.0 nano memory stick, Intenso Micro Line; USB standard: 2.0, full speed, max. 100 mA; connection assembly: Micro USB socket, protected, type B</li> </ul>	<p><b>Analog Version:</b></p> <ul style="list-style-type: none"> <li>• Type: Lithium-ion pack: 3.7 V DC/2250 mAh</li> <li>• Battery charging time with power supply: Approx. 3.5 hours</li> <li>• Battery discharge period: &gt; 8 hours, with 2 sensors</li> </ul> <p><b>CAN Version:</b></p> <ul style="list-style-type: none"> <li>• Type: Lithium-ion pack: 3.7 V DC/4550 mAh</li> <li>• Battery charging time with power supply: Approx. 7 hours</li> <li>• Battery discharge period: &gt; 8 hours, with 2 CAN-BUS sensors</li> </ul>
Memory	Casing
<ul style="list-style-type: none"> <li>• Internal measure value memory: 1 measurement, approx. 15,000 data records (270,000 measure values ACT/MIN/MAX) USB memory stick: 1 GB supplied</li> </ul>	<ul style="list-style-type: none"> <li>• Material of casing: PC/ABS</li> <li>• Material of casing protective cover: TPU</li> <li>• Dimensions (W x H x D): 96 x 172 x 54 mm</li> <li>• Weight: approx. 540g</li> </ul>
Functions	Operating Environment
<ul style="list-style-type: none"> <li>• Difference; addition; output; ACT; MIN; MAX; FS; TEMP display; battery charge; start-stop measurement</li> </ul>	<ul style="list-style-type: none"> <li>• Operating temperature: 0-50°C</li> <li>• Storage temperature: -25-60°C</li> <li>• Relative humidity: &lt;80%</li> <li>• Environmental assessment: DIN EN 60068-2-32 (1 m free fall)</li> <li>• Protection category (EN60529): Analog IP54, CAN IP67</li> </ul>
Display	PC Software
<ul style="list-style-type: none"> <li>• Type: FSTN-LCD, graphical with LED background lighting</li> <li>• Visible area: 62 mm x 62 mm</li> <li>• Resolution: 130 x 130 pixels</li> </ul>	<ul style="list-style-type: none"> <li>• Read measurement data, show, analyse on PC; read device settings, edit; load device setting from library to manual measuring device</li> </ul>
Voltage (external)	
<ul style="list-style-type: none"> <li>• Micro-USB socket, type B, + 5 V DC max 1000MA</li> </ul>	

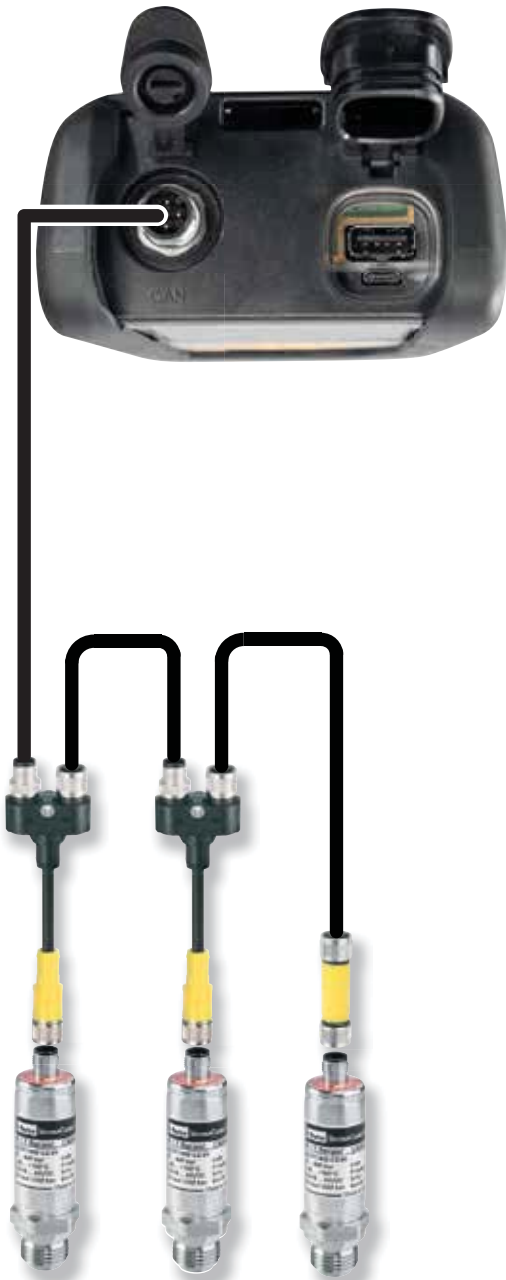
F Diagnostic



**SCM-155-2-05 CAN Version**

**CAN Inputs:**

- CAN-Bus sensor auto recognition
- Plug connection: 5-pol, M12 x 1, SPEEDCON plug
- Sampling rate P-channel: 1 ms



**SCM-155-0-02 Analog Version**

**Analog Inputs:**

- Analog sensor auto recognition
- Measurement Precision: +/- 0.02 +/- one digit
- Plug Connection: 5-pol, push-pull
- Sampling rate P-channel: 1 ms



F Diagnostic



<b>PDS4 (CAN version) Kit Contents:</b>	<b>Part Number</b>
Serviceman Plus (CAN)	SCM-155-2-05
CD with SensoWin, documentation and instructions	CD 4078
Case	SCC-210
CAN Transducers (1 or 2)	PD XXXXX-XXXX-CAN
CAN Transducer Connection Cable (1 or 2 based on transducer #)	SCK-401-05-4F-4M
Power Supply	SCSN-440
CAN Y cable (only included with 2 transducer kit)	SCK-401-0.3-Y
Terminator Resistor	SCK-401-R
Nano USB Stick - 1 GB	SCK-USB-MINISTICK
USB Connection Cable - 1 meter	SCK-315-02-36

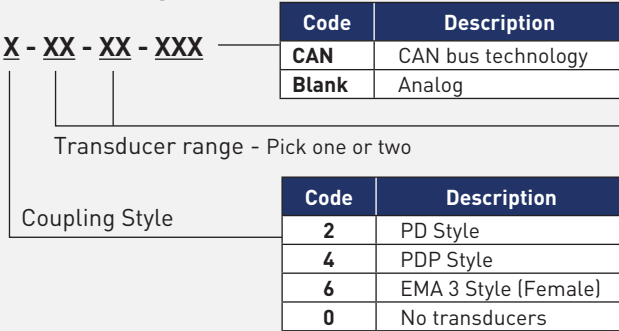
<b>PDS4 (Analog version) Kit Contents:</b>	<b>Part Number</b>
Serviceman Plus (Analog)	SCM-155-0-02
CD with SensoWin, documentation and instructions	CD 4078
Case	SCC-210
Analog Transducers (1 or 2)	PD XXXXX-XXXX
Analog Transducer Connection Cable (1 or 2 based on transducer #)	SCK-102-03-02
Power Supply	SCSN-440
Nano USB Stick - 1 GB	SCK-USB-MINISTICK
USB Connection Cable - 1 meter	SCK-315-02-36

F Diagnostic



**Code for Ordering Kits:**

**PDS4 - X - XX - XX - XXX**



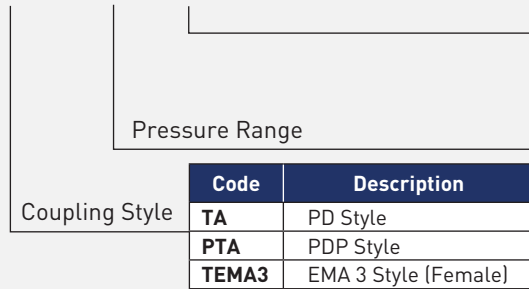
Code	Description
<b>CAN</b>	CAN bus technology
<b>Blank</b>	Analog

Code	Description
<b>2</b>	PD Style
<b>4</b>	PDP Style
<b>6</b>	EMA 3 Style (Female)
<b>0</b>	No transducers

Code	Pressure (psi)	Color
<b>01</b>	-14.5 – 220	Blue
<b>06</b>	0 – 870	Green
<b>15</b>	0 – 2175	Yellow
<b>40</b>	0 – 5800	Orange
<b>60</b>	0 – 8700	Red
<b>00</b>	No transducers	

**Additional Transducers** - Code for Ordering Separately:

**PD XXXX - XXXX - XXX**



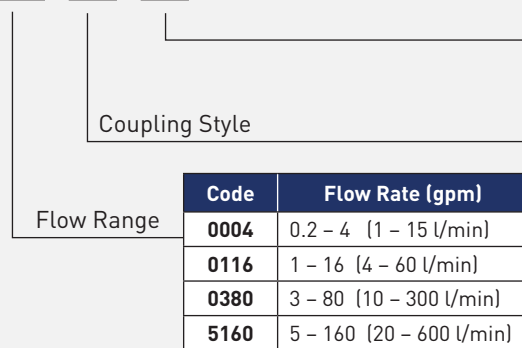
Code	Description
<b>TA</b>	PD Style
<b>PTA</b>	PDP Style
<b>TEMA3</b>	EMA 3 Style (Female)

Code	Description
<b>CAN</b>	CAN bus technology
<b>Blank</b>	Analog

Code	Pressure (psi)	Color
<b>0100</b>	-14.5 – 220	Blue
<b>0600</b>	0 – 870	Green
<b>1500</b>	0 – 2175	Yellow
<b>4000</b>	0 – 5800	Orange
<b>6000</b>	0 – 8700	Red

**Flow Sensors** - Code for Ordering Separately:

**SCFT- XXXX - XXX - XXX**



Code	Flow Rate (gpm)
<b>0004</b>	0.2 – 4 (1 – 15 l/min)
<b>0116</b>	1 – 16 (4 – 60 l/min)
<b>0380</b>	3 – 80 (10 – 300 l/min)
<b>5160</b>	5 – 160 (20 – 600 l/min)

Code	Description
<b>CAN</b>	CAN bus technology
<b>Blank</b>	Analog

Code	Description
<b>PD</b>	PD Style
<b>PDP</b>	PDP Style
<b>EMA</b>	EMA 3 Style



The Parker Service Master Easy gives you the ability to measure and store operational parameter data simultaneously, or switch between them with ease.

**Capabilities:**

- Hand held diagnostic meter
- Measure and Display
  - Pressure
  - Flow
  - Rotational Speed
  - Temperature

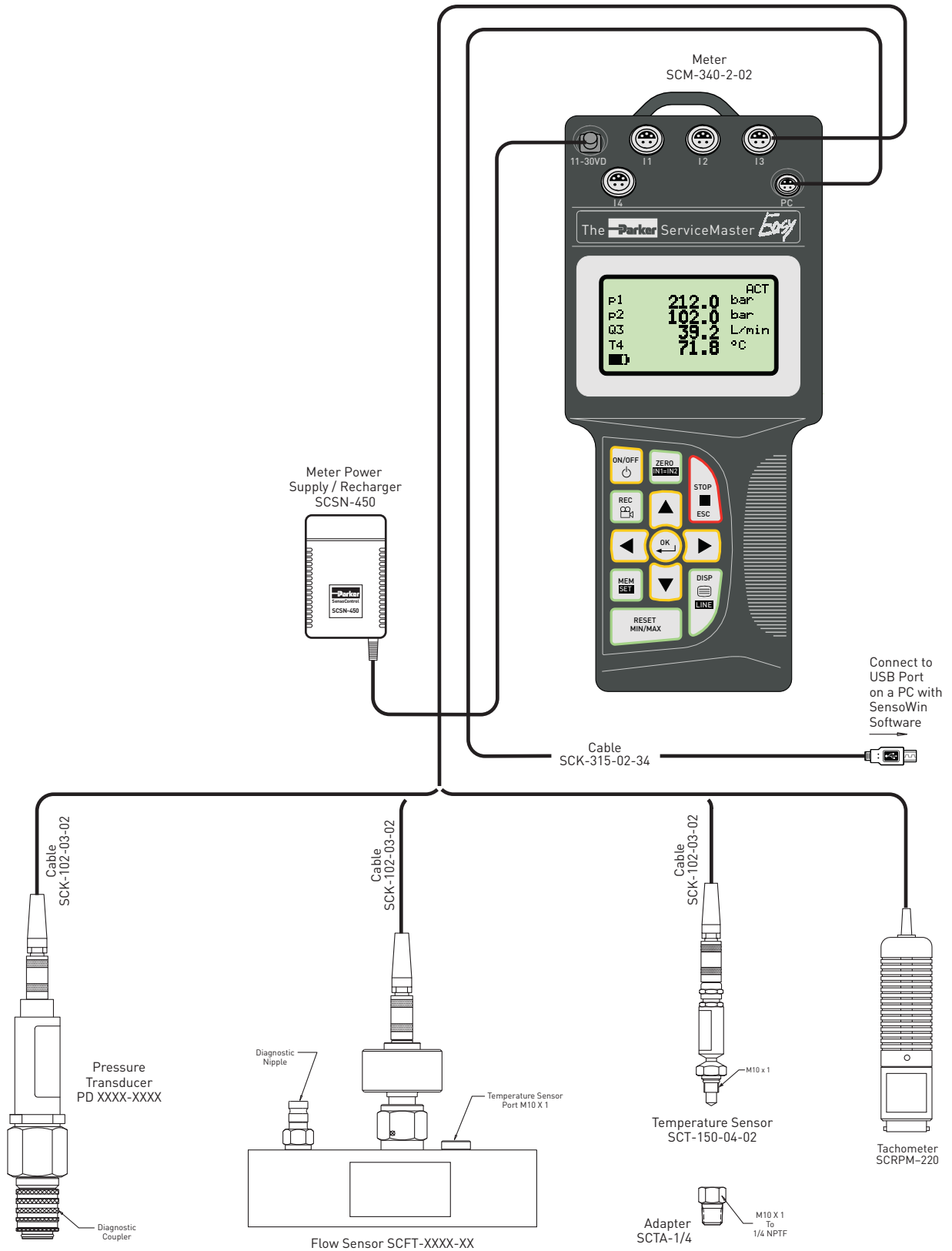
**Features:**

- Four sensor inputs
- Intuitive operation
- Rugged design
- Auto sensor recognition
- Four line numerical display
- Calculated channels
- Store data on device
- SensoWin software utility
- Scan rate of 1ms

**Service Master Easy SCM-340-2-02 Technical Data**

Functions	Ambient Conditions	Meter
Differential Value Measurement	Operating Temperatures	Digital LCD Text Display
MIN/MAX Memory	32°F to 122°F (0°C to 50°C)	- 128x64 pixels
On line data transfer	Storage Temperatures	- 72x40 mm screen
Battery level indicator	-4°F to 140°F (-20°C to 60°C)	Character Height 6 mm
Power calculation (display only)	Protection class IP54	Display of Pressure, Temperature, Flow and Rotational Speed
Flow run-out (display only)	<b>Housing</b>	
Auto power off	Glass reinforced polyamide	- Pressure in PSI and Bar
<b>Output</b>	12-Key tactile touch membrane	- Temperature in °F and °C
USB 2.0 interface	EMC Protection	- Flow in GPM and l/min.
<b>Power Requirements</b>	- Electromagnetic interference	- Rotational Speed in RPM
Internal rechargeable Ni-MH battery	(DIN/EN 50081, Part 1)	<b>Inputs</b>
Recharge circuit for use with external power supply.	- Immunity to emitted interference	Four 5-pin push-pull style connectors
Operating time - 8 hours	(DIN/EN 50082, Part 2)	Automatic Sensor Recognition for pressure, temperature or rotational speed sensors
Charge time - 3 hours	<b>Dimensions</b>	
Excitation voltage (12-30 VDC)	Length/Height/Width	12 Bit A/D Converter (4096 steps)
<b>Memory Functions</b>	- 9.25 x 4.19 x 2.09	Selectable scanning rate in 1 ms intervals
Memory capacity	- (235 x 106 x 52 mm)	Burst Mode 0.25 ms (input 1 only)
- 1,000,000 data points max	<b>Weight</b>	
- 250,000 points per curve max	1.2 lbs (700 grams)	
Variable measuring period up to 100 hours		
Manual and automatic triggering		

F Diagnostic



**F Diagnostic**



Kit Contents:	
Case	SC-690
The Parker Service Master Easy Meter	SCM-340-2-02
2 Transducers (see ordering Information below)	(See Below)
2 Transducer Cables (3m)	SCK-102-03-02
Power Supply	SCSN-450
SensoWin Software 6.0	SC-CD 4082
USB Computer Cable	SCK-315-02-34
Operating Manual (incl. with the Parker Service Master Easy Meter)	

**Code for Ordering Service Master Easy Kits:**

PDSME **XX**- **X** - **XX** - **XX**

Transducer Pressure Range  
(Choose one or two)

Coupling Style

Meter

Code	Description
2	PD Style
4	PDP Style
6	EMA 3 Style (Female)

Code	Pressure (psi)	Color
01	-14.5 - +220	Blue
06	0 - 870	Green
15	0 - 2175	Yellow
40	0 - 5800	Orange
60	0 - 8700	Red

Code	Description
34	The Parker Service Master Easy 340 Meter

**Additional Transducers**- Code for Ordering Separately:

PD **XXXXX** - **XXXX**

Pressure Range

Coupling Style

Code	Description
TA	PD Style
PTA	PDP Style
TEMA3	EMA 3 Style (Female)

Code	Pressure (psi)	Color
0100	-14.5 - +220	Blue
0600	0 - 870	Green
1500	0 - 2175	Yellow
4000	0 - 5800	Orange
6000	0 - 8700	Red

**Flow Sensors** - Code for Ordering Separately:

SCFT- **XXXX** - **XXX**

Coupling Style

Flow Range

Code	Flow Rate (gpm)
0004	0.2 - 4 (1 - 15 l/min)
0116	1 - 16 (4 - 60 l/min)
0380	3 - 80 (10 - 300 l/min)
5160	5 - 160 (20 - 600 l/min)

Code	Description
PD	PD Style
PDP	PDP Style
EMA	EMA 3 Style (Female)



The Service Master Plus combines innovative technology with increased overall capabilities to bring you a premier diagnostic instrument. This tool is more than just a meter; it incorporates data measurement, display, and on-screen analysis to provide increased functionality that extends far beyond standard meters currently on the market.

**Capabilities:**

- Hand held diagnostic meter
- Measure and Display
  - Pressure
  - Flow
  - Rotational Speed
  - Temperature
  - Auxiliary inputs

**Features:**

- 26 sensor inputs
- Rugged design
- Auto sensor recognition
- CAN open sensors
- Full color data display options
- Fast scan rate
- Store data to device, micro SD or USB
- SensoWin software utility
- Scan rate of 1ms

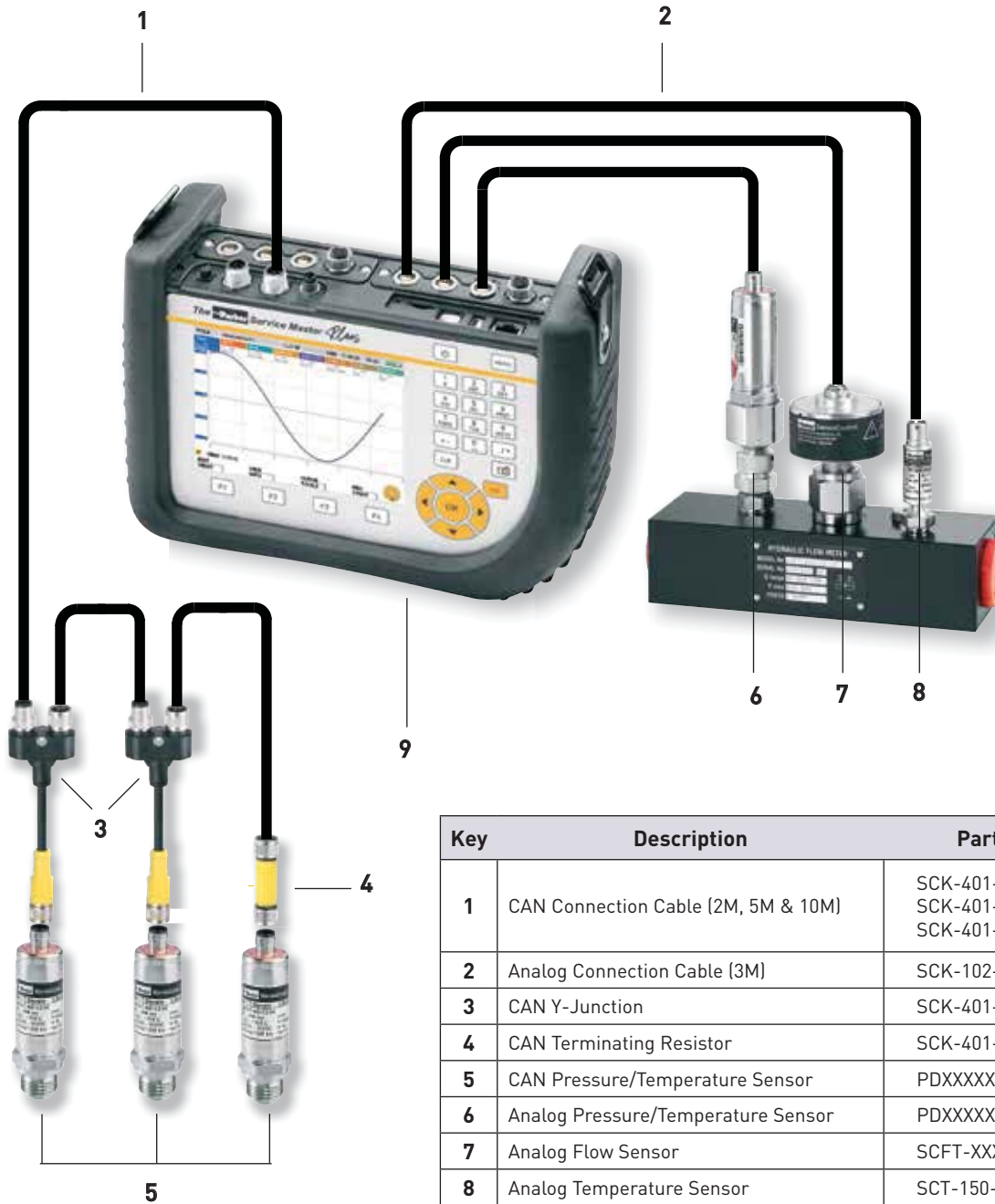
**Service Master Plus K-SCM-500-01-01-ENG includes:**

The Parker Service Master Plus Instrument
Quick Start Manual
Power Supply
USB Connection Cable
SensoWin Software
Category 5 LAN Cable

**Service Master Plus K-SCM-500-01-01-ENG Technical Data**

Functions	CANbus Inputs	Ambient Operating Conditions
Measurement Accuracy: ±0.25 % FS	2 CANbus networks with 8 inputs each (16 total)	Ambient temperature: 32 to 112 F°
Temp Error: 0.02% FS per °C		Storage temperature: -10 to 140 F°
<b>Display</b>	Scanning Rate: 1 ms	Relative humidity: < 80 %
Visible Area: 115 x 86 mm	Input Impedance: 1 kΩ	Environmental test: IEC60068-2-32 (1 m, free fall)
Resolution 640 x 480 pixels	M12x1, 5 pin push-in connector	
<b>Interfaces</b>	<b>Analog Inputs</b>	<b>Type of Protection</b>
USB device type B (mass storage)	6 Senso Control sensor inputs	IP64 (to EN60529) (Un-connected)
USB host type A (PC Connection)	Parker Automatic Sensor Recognition	IP54 in connected state
10/100 base T Ethernet RJ45	Scanning Rate: 1 ms	<b>Power Supply</b>
<b>Functions</b>	Input Impedance: 1 kΩ	Internal Lithium Ion pack, +7.4 VDC/4500 mAh
Measuring mode: Start/stop, points, trigger	5 pin push-pull connection	External 110/240 VAC - 24 VDC/2500 mA
Measurement: ACT, MIN and MAX	<b>Digital Input /Output</b>	Charge Time: 3h
Measurement display: Numerical, bar graph, pointer, curve graph	Active High 7 to 24 VDC	Run time with fully charged battery: 8h
	Active Low <1 VDC	<b>Housing/protective sleeve</b>
Trigger: Slope, manual, level, window, time, logic, Pre-Trigger	Input Impedance: 1 kΩ	Housing material: ABS/PC (thermoplastic)
	Output Current - 20 mA	Housing protective sleeve material: TPE (thermoplastic elastomer)
Remote operation via the Ethernet	<b>Analog Inputs for auxiliary sensors</b>	Dimensions (w x h x d): 257 mm x 75 mm x 181 mm
Acoustic notification at any incident	2 analog inputs for measuring current and voltage	
<b>Measure value storage</b>	Scanning Rate: 1ms	Weight: 3.4 lbs
6,000,000 points per measurement	Voltage Measuring Range: -10 to +10VDC	
1,000,000,000 points total storage	Current Measuring Range: 0/4 to 20 mA	
On board storage 64 MB	Configurable as FAST-mode analog inputs, 0.1ms scanning rate	
External: Micro SD memory card slot		
External: USB mass storage device		

F Diagnostic



Key	Description	Part Number
1	CAN Connection Cable (2M, 5M & 10M)	SCK-401-02-4F-4M SCK-401-05-4F-4M SCK-401-10-4F-4M
2	Analog Connection Cable (3M)	SCK-102-03-02
3	CAN Y-Junction	SCK-401-0.3-Y
4	CAN Terminating Resistor	SCK-401-R
5	CAN Pressure/Temperature Sensor	PDXXXXX-XXXX-CAN
6	Analog Pressure/Temperature Sensor	PDXXXXX-XXXX
7	Analog Flow Sensor	SCFT-XXXX-XXX
8	Analog Temperature Sensor	SCT-150-04-02
9	Service Master Plus Instrument	K-SCM-500-01-01-ENG
-	CAN Flow Sensor	SCFT-XXXX-XXX-CAN

F Diagnostic





Kit Contents:	
Case	SCC-500-ENG
The Parker Service Master Plus Instrument	K-SCM-500-01-01-ENG
2 Transducers	(CAN or Analog See Below)
2 Transducer Cables (5m CAN or Analog)	SCK-XXX-XX-X
Power Supply	SCSN-460
USB Connection Cable	SCK-318-02-35
SensoWin Software	
Quick Start Manual	
Category 5 LAN Cable	

Code for Ordering Service Master Plus Kits:

**PDSMP 50 - X - XX - XX - XXX**

Code	Description
<b>CAN</b>	CAN bus Technology
<b>Blank</b>	Analog

Transducer Pressure Range (choose 2)

Code	Pressure (psi)	Color
<b>01</b>	-14.5 – +220	Blue
<b>06</b>	0 – 870	Green
<b>15</b>	0 – 2175	Yellow
<b>40</b>	0 – 5800	Orange
<b>60</b>	0 – 8700	Red

Coupler Style

Code	Description
<b>2</b>	PD Style
<b>6</b>	EMA 3 Style (Female)

Meter

Code	Description
<b>50</b>	The Parker Service Master Plus

**Additional Transducers -**  
Code for Ordering Separately:

**PD XXXXX - XXXX - XXX**

Code	Description
<b>CAN</b>	CAN bus Technology
<b>Blank</b>	Analog

Pressure Range

Code	Pressure (psi)	Color
<b>0100</b>	-14.5 – +220	Blue
<b>0600</b>	0 – 870	Green
<b>1500</b>	0 – 2175	Yellow
<b>4000</b>	0 – 5800	Orange
<b>6000</b>	0 – 8700	Red

Coupler Style

Code	Description
<b>TA</b>	PD Style
<b>PTA</b>	PDP Style
<b>TEMA3</b>	EMA 3 Style (Female)

**Flow Sensors -**

Code for Ordering Separately:

**SCFT- XXXX - XXX - XXX**

Code	Description
<b>CAN</b>	CAN bus Technology
<b>Blank</b>	Analog

Coupler Style

Code	Description
<b>PD</b>	PD Style
<b>EMA</b>	EMA 3 Style

Flow Range

Code	Flow Rate (gpm)
<b>0004</b>	0.25 – 4 (1 – 15 l/min)
<b>0116</b>	1 – 16 (4 – 60 l/min)
<b>0380</b>	3 – 80 (10 – 300 l/min)
<b>5160</b>	5 – 160 (20 – 600 l/min)



**Diagnostic Meters and Accessories**

Description	The Parker Serviceman Plus	The Parker Service Master Easy	The Parker Service Master Plus	Part Number
<b>The Parker Serviceman Plus</b> Hand-held meter, 2-3 inputs (Includes SCSN-440 Power Supply)	■			SCM-155-2-05 (CAN) SCM-155-0-02 (Analog)
<b>The Parker Service Master Easy</b> Hand-held meter, 4 inputs, up to 1,000,000 data points (Includes SCSN-450 Power Supply)		■		SCM-340-2-02
<b>The Parker Service Master Plus</b> Hand-held meter, 26 inputs, up to 1,000,000,000 data points (Includes SCSN-460 Power Supply)			■	K-SCM-500-01-01-ENG
<b>Storage Case - Small</b>	■			SCC-210
<b>Storage Case - Medium</b>	■	■		SC-690
<b>Storage Case - Large Roller</b>	■	■	■	SCC-500-ENG
<b>Storage Insert - Holds Extra Sensors</b> Used with SCC-500-ENG Large Roller Case	■	■	■	SCC-500-INLET-ENG
<b>Power Supply</b> 120 Volt AC	■			SCSN-440
<b>Power Supply</b> 120 Volt AC		■		SCSN-450
<b>Power Supply</b> 120 Volt AC			■	SCSN-460
<b>Connection Cable - Analog</b> Used between meter and sensors (3M length)	■	■	■	SCK-102-03-02
<b>Extension Cable - Analog</b> Used in series with connection cables (5M length)	■	■	■	SCK-102-05-12
<b>Connection Cable - CAN</b> Used between meter and sensors (2M, 5M, 10M lengths)	■		■	SCK-401-02-4F-4M SCK-401-05-4F-4M SCK-401-10-4F-4M
<b>Pressure Transducers - Analog</b> Five measurement ranges	■	■	■	See page F-17
<b>Pressure Transducers - CAN</b> Five measurement ranges	■		■	See page F-18
<b>Flow Sensors - Analog</b> Four measurement ranges	■	■	■	See page F-19
<b>Flow Sensors - CAN</b> Four measurement ranges	■		■	See page F-20
<b>Temperature Sensor</b> Used with Parker Flow Sensors or SCTA-1/4 Port Adapter (Requires standard connection cable)	■	■	■	SCT-150-04-02
<b>Port Adapter</b> Converts M10X1 to 1/4" male NPT thread	■	■	■	SCTA-1/4
<b>Tachometer</b> To measure rotational speed (0 to 10,000 RPM)	■	■	■	SCRPM-220
<b>Contact Adapter</b> For SCRPM-220 Tachometer	■	■	■	SCRPMA-001
<b>Focus Adapter</b> For SCRPM-220 Tachometer	■	■	■	SCRPMA-002
<b>Diagnostic Test Hose Assembly</b> (19" & 32" lengths) Used with PD style Parker Transducers and diagnostic nipples	■	■	■	PDH-19 PDH-32
<b>Voltage Adapter</b> Used with auxiliary sensors	■	■	■	SCMA-VADC-600
<b>Frequency Adapter</b>	■	■	■	SCMA-FCU-600

F Diagnostic



**Diagnostic Meters and Accessories  
Software and Data Cables**



Description	The Parker Serviceman Plus	The Parker Service Master Easy	The Parker Service Master Plus	Part Number
<b>The Parker Serviceman Plus</b> Hand-held meter, 2-3 inputs (Includes SCSN-440 Power Supply)	■			SCM-155-2-05 (CAN) SCM-155-0-02 (Analog)
<b>The Parker Service Master Easy</b> Hand-held meter, 4 inputs, up to 1,000,000 data points (Includes SCSN-450 Power Supply)		■		SCM-340-2-02
<b>The Parker Service Master Plus</b> Hand-held meter, 26 inputs, up to 1,000,000,000 data points (Includes SCSN-460 Power Supply)			■	K-SCM-500-01-01-ENG
<b>Data Cable</b> To connect the Serviceman Plus meter to a PC	■			SCK-315-02-36
<b>Data Cable</b> Used between the Parker Service Master Easy meter and a PC		■		SCK-315-02-34
<b>Data Cable</b> Used between the Parker Service Master Plus meter and a PC			■	SCK-318-02-35
<b>SensoWin Software</b> For data transfer from any Parker Service Master meter to a PC	■	■	■	Download from web



**Pressure Transducer - Analog**

- Five measurement ranges: Vacuum to 8,750 PSI
- Color coded for easy identification
- Corrosion resistant stainless steel housing
- Accuracy of 0.50% Max Full Scale
- Available with PD, PDP or EMA style diagnostic couplings

**Analog Transducer Part Numbers and Technical Data**

					
	PD ** -0100	PD ** -0600	PD ** -1500	PD ** -4000	PD ** -6000
<b>Color Code</b>	Blue	Green	Yellow	Orange	Red
<b>Measuring Range (Pressure)</b>	-14.5 to 220 psi	0 to 870 psi	0 to 2175 psi	0 to 5800 psi	0 to 8700 <sup>(1)</sup> psi
<b>Measuring Range (Temp)</b>	-13°F to 221°F	-13°F to 221°F	-13°F to 221°F	-13°F to 221°F	-13°F to 221°F
<b>Max. Overload Pressure</b>	434 psi	1450 psi	3625 psi	14500 psi	14500 psi
<b>Output Signal (Volts)</b>	-0.2 to 2	0 to 3	0 to 3	0 to 3	0 to 3
<b>Response Time</b>	1 ms	1 ms	1 ms	1 ms	1 ms
<b>Excitation Voltage</b>	7-12 VDC	7-12 VDC	7-12 VDC	7-12 VDC	7-12 VDC
<b>Accuracy (max)</b>	0.50% FS	0.50% FS	0.50% FS	0.50% FS	0.50% FS

1. Maximum Rated Pressure for PD Series Couplers is 6000 psi. Maximum Rated Pressure for EMA Series Couplers is 9000 psi.  
2. Analog accessories such as pressure sensors, temperature sensors, flow meters, tachometers and cables are all compatible for use with Serviceman and the Parker Service Master meters.

**“ \*\* ” in the Part Number Represents:**

- TA = PD Style
- PTA = PDP Style
- TEMA3 = EMA3 Style (Female)

**Materials of Construction**

Transducer.....Stainless steel  
Diaphragm.....Stainless steel  
Coupler.....Chromium-6 Free Plated steel  
Seal.....Fluorocarbon

**Temperature Range**

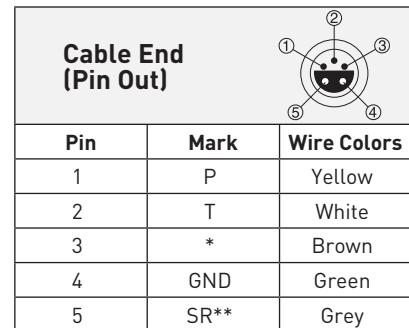
Working.....-4° to 185°  
Fluid.....-13° to 221°  
Storage.....-40° to 257°

**Output**

Accuracy (max).....0.50% FS  
Load.....2m ohms  
Response time.....<1 ms  
Output signal to noise.....0.1%FS  
Resonant frequency.....100 KHz

**Voltage Requirement**

7 to 12 VDC excitation voltage  
Permissible ripple.....±2% ss  
Current requirement.....5 mA



\* V<sub>s</sub> = 7-12 VDC  
\*\* Sensor Recognition



**Pressure Transducer - CAN**

- Five measurement ranges: Vacuum to 8,750 PSI
- Compatible for use with the Parker Service Master Plus only
- Color coded for easy identification
- Corrosion resistant stainless steel housing
- Accuracy of 0.50% Max Full Scale
- Available with PD, PDP or EMA style diagnostic couplings

**CAN Transducer Part Numbers and Technical Data**

					
	PD ** -0100-CAN	PD ** -0600-CAN	PD ** -1500-CAN	PD ** -4000-CAN	PD ** -6000-CAN
<b>Color Code</b>	Blue	Green	Yellow	Orange	Red
<b>Measuring Range (Pressure)</b>	-14.5 to 220 psi	0 to 870 psi	0 to 2175 psi	0 to 5800 psi	0 to 8700 <sup>(1)</sup> psi
<b>Measuring Range (Temp)</b>	-13°F to 221°F	-13°F to 221°F	-13°F to 221°F	-13°F to 221°F	-13°F to 221°F
<b>Max. Overload Pressure</b>	434 psi	1740 psi	4350 psi	11600 psi	17400 psi
<b>Response Time</b>	1 ms	1 ms	1 ms	1 ms	1 ms
<b>Excitation Voltage</b>	8-40 VDC	8-40 VDC	8-40 VDC	8-40 VDC	8-40 VDC
<b>Accuracy (max)</b>	0.50% FS	0.50% FS	0.50% FS	0.50% FS	0.50% FS

1. Maximum Rated Pressure for PD Series Couplers is 6000 psi. Maximum Rated Pressure for EMA Series Couplers is 9000 psi.  
2. CAN accessories such as pressure transducers, flow sensors, and cables are compatible for use with the Parker Service Master Plus only.

**“ \*\* ” in the Part Number Represents:**

- TA = PD Style
- PTA = PDP Style
- TEMA3 = EMA3 Style (Female)

<b>Excitation Voltage</b> .....	8-40 VDC
<b>Electrical Connection</b> .....	5 pin, M 12 x 1 connection
<b>Port Connection</b> .....	1/2 " BSPP
<b>Housing</b> .....	Stainless Steel 1.4301
<b>Seal Material</b> .....	FKM
<b>Ambient Temperature Range</b> .....	-13 to 185°F
<b>Max. Fluid Temperature</b> .....	221°F
<b>Shock Resistance</b> .....	IEC 68-2-29
<b>Vibration Resistance</b> .....	IEC 68-2-6

<b>Cable End (Pin Out)</b>	
Pin	Item
1	Shield
2	V <sub>s</sub> = 8...40VDC
3	GND
4	CAN High
5	CAN Low



F Diagnostic



Parker Flow Sensors provide the ability to measure pressure, temperature and flow from a single test point in a hydraulic system. Constructed of light-weight aluminum, they are designed to be used with a wide variety of hydraulic fluids. This design also minimizes the effect of viscosity changes.

Flow sensors are provided with a choice of PD, PDP or EMA style diagnostic ports and are designed to be used with Serviceman Plus (Analog), Parker Service Master Plus and Parker Service Master Easy.

- Four measurement ranges: 0.2 to 160 gpm
- Accuracy of 1% FS or IR
- Provides access ports for temperature and pressure measurement
- Supplied with diagnostic coupling and temperature measurement port

### Analog Flow Sensor Part Numbers

Measuring Range	Flow Sensor with PD Nipple	Flow Sensor with PDP Nipple	Flow Sensor with EMA Nipple	Inlet/Outlet Port Configuration	Length (in.)	Height (in.)	Width (in.)
0.2 – 4 gpm (1 – 15 l/min)	SCFT-0004-PD	SCFT-0004-PDP	SCFT-0004-EMA	3/4-16 ORB	5.35	4.61	1.46
1 – 16 gpm (4 – 60 l/min)	SCFT-0116-PD	SCFT-0116-PDP	SCFT-0116-EMA	1 1/16-12 ORB	7.48	5.12	2.44
3 – 80 gpm (10 – 300 l/min)	SCFT-0380-PD	SCFT-0380-PDP	SCFT-0380-EMA	1 5/16-12 ORB	7.48	5.28	2.44
5 – 160 gpm (20 – 600 l/min)	SCFT-5160-PD	SCFT-5160-PDP	SCFT-5160-EMA	1 5/8-12 ORB	8.35	5.91	2.44

### Analog Flow Sensors Technical Data

<b>Pressure Rating</b>	6000 PSI
<b>Fluid Temperature Range</b>	-4°F to +194°F
<b>Ambient Temperature Range</b>	-4°F to +122°F
<b>Media/Compatibility</b>	Petroleum Based Fluids (Contact factory for use with water based hydraulic fluids)
<b>Flow Measurement Accuracy</b>	±1.0% Actual Reading
<b>Voltage Input</b>	+7 to 12 VDC (Supplied by SensoControl meter)
<b>Current Requirement</b>	6mA
<b>Response Time</b>	50 ms
<b>Viscosity Range</b>	10 to 100 cSt

### Material Specifications

<b>Housing</b>	Anodized Aluminum
<b>Turbine</b>	Stainless Steel
<b>Bearings</b>	Stainless Steel
<b>Seal Material</b>	Nitrile
<b>Electrical Connection</b>	5 Pin Push-Pull Style





Parker Flow Sensors provide the ability to measure pressure, temperature and flow from a single test point in a hydraulic system. Constructed of light-weight aluminum, they are designed to be used with a wide variety of hydraulic fluids. This design also minimizes the effect of viscosity changes.

CAN flow sensors are provided with a choice of PD, PDP or EMA style diagnostic ports and are designed to be used with the Parker Service Master Plus and Serviceman Plus (CAN).

- Four measurement ranges: 0.2 to 160 gpm
- Accuracy of 1% FS or IR
- Provides access ports for temperature and pressure measurement
- Supplied with diagnostic coupling and temperature measurement port

CAN Flow Sensor Part Numbers							
Measuring Range	Flow Sensor with PD Nipple	Flow Sensor with PDP Nipple	Flow Sensor with EMA Nipple	Inlet/Outlet Port Configuration	Length (in.)	Height (in.)	Width (in.)
0.2 – 4 gpm (1 – 15 l/min)	SCFT-0004-PD-CAN	SCFT-0004-PDP-CAN	SCFT-0004-EMA-CAN	3/4-16 ORB	5.35	4.61	1.46
1 – 16 gpm (4 – 60 l/min)	SCFT-0116-PD-CAN	SCFT-0116-PDP-CAN	SCFT-0116-EMA-CAN	1 1/16-12 ORB	7.48	5.12	2.44
3 – 80 gpm (10 – 300 l/min)	SCFT-0380-PD-CAN	SCFT-0380-PDP-CAN	SCFT-0380-EMA-CAN	1 5/16-12 ORB	7.48	5.28	2.44
5 – 160 gpm (20 – 600 l/min)	SCFT-5160-PD-CAN	SCFT-5160-PDP-CAN	SCFT-5160-EMA-CAN	1 5/8-12 ORB	8.35	5.91	2.44

CAN Flow Sensors Technical Data	
<b>Operating Pressure</b>	6000 psi
<b>Overload Pressure</b>	1.2 X Operating Pressure
<b>Max Fluid Temperature</b>	194°F
<b>Ambient Temperature Range</b>	14°F to +122°F
<b>Max Flow</b>	1.1 X Flow Range
<b>Pressure Drop @ FS 21 cSt</b>	21 psi (SCFT-0004) 21 psi (SCFT-0116) 58 psi (SCFT-0380) 72 psi (SCFT-5160)
<b>Flow Measurement Accuracy @21 cSt</b>	1 % FS (SCFT-0004) 1 % IR (SCFT-0116) 1 % IR (SCFT-0380) 1 % IR (SCFT-5160)
FS = Full Scale IR = Indicated Reading	
<b>Voltage Input</b>	8 to 40 VDC
<b>Response Time</b>	50 ms
<b>Filtration</b>	25 um
<b>Viscosity Range</b>	10 to 100 cSt

Material Specifications	
<b>Housing</b>	Aluminum
<b>Wetted Parts</b>	Stainless Steel
<b>Seal Material</b>	FKM

All Parker SensoControl hand-held diagnostic meters are equipped with the same 5-pin push-pull style connector ports. This allows analog accessories such as pressure sensors, temperature sensors, flow meters, tachometers and cables to be compatible with the Serviceman and the Parker Service Master meters.



**Temperature Sensor** for Serviceman and the Parker Service Master Easy. Can be used with Parker flow sensors or with an SCTA-1/4 port adapter.

<b>Part Number</b>	SCT-150-04-02
<b>Accuracy</b>	+1.5% Full scale
<b>Temperature range</b>	-58°F to 257°F [-50°C to 125°C]



**SCRPM Tachometer** for Serviceman and the Parker Service Master Easy Meters. Displays a precision measurement of rotational speed. 5-pin push-pull style connector.

<b>Part Number</b>	SCRPM-220
<b>Measuring Range</b>	20 – 10,000 RPM
<b>Measuring Distance</b>	0.1 – 19.5 in
<b>Accuracy</b>	0.5% FS
<b>Excitation Voltage</b>	7 – 9 VDC
<b>Output Signal</b>	0 – 3 VDC
<b>Resolution</b>	5 RPM

**Tachometer Adapters**

Contact Adapter for belt drive/wheel.	
<b>Part Number</b>	SCRPMA-001
Focus Adapter for confined areas.	
<b>Part Number</b>	SCRPMA-002



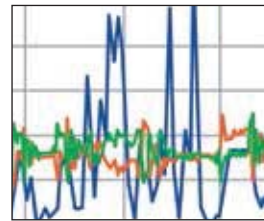
**Voltage Adapter** for use with Auxiliary Sensors to the Parker Service Master Easy.

<b>Part Number</b>	SCMA-VADC-600
<b>Input</b>	0 - 4 A, 0 - 48 VDC
<b>Accuracy</b>	0.25% FS



**5 pin to 5 pin Cables** Flow sensor, transducer and temperature probe cables for both Serviceman and the Parker Service Master Easy.

<b>Part Number</b>	SCK-102-03-02
<b>Length</b>	10 ft (3 m)
<b>Part Number</b>	SCK-102-05-12
<b>Extension Cable</b>	16.4 ft (5 m)



**SensoWIN™ Software** for data transfer from all Parker Service Master meters to a PC (Windows 98 and newer). SensoWin Software is included with Service Master meters. It is not sold separately, but is available for download from Parker.com



**Frequency Converter** Converts the signal of a connected sensor into an analog and a CAN frequency. Measurement parameters of the converter can be set via PC with the configurations software

<b>Part Number</b>	SCMA-FCU-600
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### Ordering Information

#### Coupler / Nipple Material

- Prefix "B" for Brass Body with Fluorocarbon seal
- Prefix "SS" for Stainless Steel Body with Fluorocarbon seal
- Standard body material is Steel with Nitrile seal
- Suffix "-6" to include Dust Cap with Nipple

### Optional Seals Suffix\*

No suffix is required when ordering products with the standard Nitrile seals. When specifying an optional seal, refer to the following chart to determine the appropriate suffix.

Coupling Series	Ethylene Propylene	Fluorocarbon	Neoprene
PD Series	W	Y	Z

\*To select proper seal materials, see Fluid Compatibility Chart in Appendix section, or contact your Parker Quick Coupling Distributor.

PD Series couplings provide easy connection for mechanical gauges or specialized diagnostic equipment like SensoControl®.

Typically, PD or BPD nipples are permanently mounted in the system at threaded test ports, in rigid tubing or in hose assemblies. PD couplers are attached to test instruments.

Couplers align to the mating nipples without threading. This allows gauges, transducers and other test equipment to be snapped into place without difficulty.

Note: Protective dust caps play a crucial role in the life of a quick coupling and no purchase is complete without the selection of an appropriate dust cap.

### Features

- Flush-face poppet valves minimize air inclusion and spillage, provide easy-to-clean surfaces, and help to prevent contamination.
- Grip-tight knurled sleeves help to make connecting and disconnecting easy, even while wearing gloves.
- Nipples are machined from high tensile steel for strength to withstand 6000 PSI continuous operating pressure. BPD nipples offer features similar to the standard steel PD nipples with the added feature of a brass body.
- PD nipples are designed to meet or exceed SAE J1502 and ISO 15171-1 design and performance specifications.
- End connections include pipe, O-ring, metric thread, bulkhead, 37° Flare, ORFS and bite-type.

### PD Series Dust Cap



Body Size	Dust Cap Part No.
1/8	PD6-285

### Specifications - Body Size 1/8"

Description	PD Coupler	PD Nipple	BPD Nipple	Assembly
Part Number	PD242	PD361	BDP343Y	—
Body Material (Steel)	Carbon Steel	High Tensile Steel	Brass	—
Rated Pressure (PSI)	6000	6000	300	6000
Temperature Range (STD Seals) Nitrile	-40°F to +250°F		-15°F to +400°F Fluorocarbon	-40°F to +250°F
Rated Flow (GPM)	—	—	—	0.8
Max. Recommended Flow (GPM)	—	—	—	4.0
Burst Pressure (PSI/Min)	23,000	40,000	—	17,000
Vacuum Data (Inches Hg)	27.5	27.5	27.5	27.5
Pressure Drop at Rated Flow (PSI) with 200 SUS Fluid	—	—	—	56
Spillage at 15 PSI (ml)-Assembly	0.1 per disconnect			
Air Inclusion (ml)-Assembly	0.02 per connect			
Connect Force-Assembly	41 Lbs. (100 PSI)			
Disconnect Force-Assembly	20 Lbs. (100 PSI)			

**Couplers- Female Thread**



Body Size	Part Number	Thread Size	Overall Length	Wrench Flats	Largest Diameter	Weight
1/8	PD222	1/8-27 NPTF	1.67	0.81	0.96	0.20
1/8	PD240	7/16-20 UNF	2.12	0.81	0.96	0.26
1/8	PD242	1/4-18 NPTF	2.12	0.81	0.96	0.25
1/8	SSPD242Y**	1/4-18 NPTF	2.12	0.81	0.96	0.25
1/8	PD260	9/16-18 UNF	2.12	0.81	0.96	0.24

**Couplers- Male Pipe Thread**



Body Size	Part Number	Thread Size	Overall Length	Wrench Flats	Largest Diameter	Weight
1/8	PD243	1/4-18 NPTF	2.26	0.81	0.96	0.23

**Nipples- Female Pipe Thread**



Body Size	Part Number	Thread Size	Overall Length	Exposed Length	Wrench Flats	Largest Diameter	Weight
1/8	PD322	1/8-27 NPTF	1.48	0.78	0.56	0.65	0.06
1/8	PD342	1/4-18 NPTF	1.63	0.93	0.75	0.87	0.12

**Nipples- Male Pipe Thread**



Body Size	Part Number	Thread Size	Overall Length	Exposed Length	Wrench Flats	Largest Diameter	Weight
1/8	PD323	1/8-27 NPTF	1.55	0.85	0.69	0.79	0.17
1/8	BPD323Y*	1/8-27 NPTF	1.44	0.74	0.63	0.72	0.17
1/8	BPD343Y*	1/4-18 NPTF	1.48	0.78	0.69	0.79	0.06
1/8	PD343	1/4-18 NPTF	1.48	0.78	0.69	0.79	0.06
1/8	SSPD343Y**	1/4-18 NPTF	1.48	0.78	0.69	0.79	0.06
1/8	PD363	3/8-18 NPTF	1.50	1.13	0.81	0.96	0.09

\* BPD designates brass body, Fluorocarbon seal standard  
\*\* SSPD designates 316SS body, Fluorocarbon seal standard



Note: Add -6 to Nipple part number to include dust cap, for example PD343-6

**Nipples- Male Metric Thread**



Body Size	Part Number	Thread Size Metric	Overall Length	Exposed Length	Wrench Flats	Largest Diameter	Weight
1/8	PD357	M10 x 1.0	1.80	1.10	0.69	0.79	0.17
1/8	PD3107	M16 x 1.5	1.54	0.84	0.88	1.01	0.08
1/8	PD3127	M18 x 1.5	1.60	0.90	0.94	1.08	0.09
1/8	PD3147	M20 x 1.5	1.50	0.80	0.75	0.87	0.07

**Nipples- Male Straight Thread**



Body Size	Part Number	Thread Size ORB	Overall Length	Exposed Length	Wrench Flats	Largest Diameter	Weight
1/8	PD331	3/8-24 UNF	1.80	1.10	0.69	0.79	0.17
1/8	PD341	7/16-20 UNF	1.60	0.90	0.69	0.79	0.08
1/8	PD351	1/2-20 UNF	1.32	0.62	0.63	0.72	0.05
1/8	PD361	9/16-18 UNF	1.32	0.62	0.69	0.79	0.06

**Nipples- Bulkhead Triple-Lok**



Body Size	Part Number	Thread Size	Tube Size	Overall Length	Exposed Length	Wrench Flats	Largest Diameter	Weight
1/8	PD345	7/16-20 UNF	1/4	2.92	2.22	0.81	0.94	0.19
1/8	PD355	1/2-20 UNF	5/16	2.92	2.22	0.81	0.94	0.19
1/8	PD365	9/16-18 UNF	3/8	3.00	2.30	0.81	0.94	0.20

**Nipples- Bulkhead Seal-Lok**



Body Size	Part Number	Thread Size	Tube Size	Overall Length	Exposed Length	Wrench Flats	Largest Diameter	Weight
1/8	PD346	9/16-18 UNF	1/4	2.98	2.27	0.81	0.94	-
1/8	PD366	11/16-16 UNF	3/8	3.08	2.37	1.00	1.16	-
1/8	PD386	13/16-16 UNF	1/2	3.18	2.47	1.12	1.30	-

\* Note: Add -6 to part number to include dust cap, for example PD343-6  
 \* BPD designates brass body, Fluorocarbon seal standard  
 \*\* SSPD designates 316SS body, Fluorocarbon seal standard

**Tube End Nipples\*- Triple Lok**



Body Size	Part Number Steel	Tube Size	Overall Length	Exposed Length	Weight
1/8	PD34BTX	1/4	1.64	0.94	0.10
1/8	PD36BTX	3/8	1.66	0.96	0.09



1/8	PD38BTX	1/2	1.17	0.47	0.12
1/8	PD312BTX	3/4	1.39	0.69	0.27

\* Tube end nipples are designed to meet the performance standards of the tube or hose fitting connection, which may or may not meet SAE J1502 Standards

**Tube End Nipples\*- Seal Lok**



Body Size	Part Number Steel	Tube Size	Overall Length	Exposed Length	Weight
1/8	PD34BTL	1/4	2.18	1.48	0.12
1/8	PD36BTL	3/8	2.30	1.60	0.14



1/8	PD38BTL	1/2	1.57	0.83	0.13
1/8	PD310BTL	5/8	1.16	0.46	0.19

\* Tube end nipples are designed to meet the performance standards of the tube or hose fitting connection, which may or may not meet SAE J1502 Standards



Note: Add -6 to Nipple part number to include dust cap, for example PD343-6

F Diagnostic





PDP Series couplings provide easy connection for mechanical gauges or specialized diagnostic equipment like SensoControl. Typically, PDP nipples are permanently mounted in the system at threaded test ports, in rigid tubing or in hose assemblies. PDP couplers are attached to test instruments.

Locking balls align the couplers to the mating nipples without threading, so gauges, transducers and other test equipment can be snapped into place without difficulty.

Parker's PDP Series couplings offer the advantages of PD couplings, but are designed to connect easily and quickly under full system pressure up to 6000 PSI (operating).

PDP couplers and nipples push to connect with a constant force of only six pounds. Then the coupler base is turned to open the valve and complete the connection. In the connected position, the coupler base blocks the retracting sleeve to prevent accidental disconnects.

### Features

- Made to connect under pressure up to 6000 psi
- Grip-tight knurled sleeves help to make connecting and disconnecting easy, even while wearing gloves.
- Nipples are machined from high tensile steel for strength to withstand 6000 PSI continuous operating pressure.
- End connections include pipe, O-ring, 37° Flare and ORFS
- Durable Ball Valve Nipple.
- Coupler is unvalved to allow gauges and transducers to return to zero when disconnected.

Specifications - Body Size 1/8"			
Description	PDP Coupler	PDP Nipple	Assembly
Body Material (Steel)	Carbon Steel	High Tensile Steel	—
Rated Pressure (PSI)	-	6000	6000
Temperature Range (STD Seals) Nitrile	-40°F to +250°F		
Connect Force-Assembly	6 Lbs. (0-6000 PSI)		
Disconnect Force-Assembly	7 Lbs. (0-6000 PSI)		

PD Series Dust Cap		
	Body Size	Dust Cap Part No.
	1/8	PD6-285



Note: Add -6 to Nipple part number to include dust cap, for example PDP343-6

Ordering Information
<b>Coupling / Nipple Material:</b> Standard body material is Steel Standard seal material is Nitrile

Optional Seals Suffix*			
Coupling Series	Ethylene Propylene	Fluorocarbon	Neoprene
PDP Series	W	Y	Z

\*To select proper seal materials, see Fluid Compatibility Chart in Appendix section, or contact your Parker Quick Coupling Distributor.

**Coupler - Female Thread**



Body Size	Part Number Steel	Thread Size	Overall Length	Largest Diameter	Wrench Flats	Weight
1/8	PDP242	1/4-18 NPTF	2.15	0.96	0.81	-

**Nipples - Male Pipe Thread**



Body Size	Part Number	Thread Size	Overall Length	Exposed Length	Wrench Flats	Largest Diameter	Weight
1/8	PDP323	1/8-27 NPTF	2.02	1.46	0.69	0.79	0.26
1/8	PDP343	1/4-18 NPTF	1.48	0.93	0.69	0.79	0.12

**Nipples - Male Straight Thread**



Body Size	Part Number	Thread Size ORB	Overall Length	Exposed Length	Wrench Flats	Largest Diameter	Weight
1/8	PDP341	7/16-20 UNF	2.06	1.50	0.69	0.79	0.12
1/8	PDP361	9/16-18 UNF	1.48	0.93	0.69	0.79	0.07

**Nipples - Triple-Lok**



Body Size	Part Number	Tube Size	Overall Length	Exposed Length	Wrench Flats	Largest Diameter	Weight
1/8	PDP34BTX	1/4	2.11	1.55	0.69	.80	-
1/8	PDP36BTX	3/8	2.13	1.57	0.69	.80	-

**Nipples - Seal-Lok**



Body Size	Part Number	Tube Size	Overall Length	Exposed Length	Wrench Flats	Largest Diameter	Weight
1/8	PDP34BTL	1/4	2.65	2.09	.69	.80	-
1/8	PDP36BTL	3/8	2.77	2.21	.81	.94	-

F Diagnostic



EMA couplings provide easy diagnostic connections for Parker SensoControl® equipment or mechanical gages. EMA test points are typically permanently plumbed into a fluid system at locations where pressure measurements are required for maintenance or testing. Integral pressure cap protects the test point from damage and prevents contamination of the fluid system. Proven twist-to-connect design allows the test points to be connected even when the system is in operation and the test points are pressurized. EMA's compact design and optional high pressure hose assemblies allow extra flexibility for the location of system test points.

Although designed primarily for diagnostic applications, EMA fittings and hose assemblies are ideal for a wide range of applications that require compact high pressure connections and limited flow rates.

### Features

- Knurled sleeve allows simple twist-to-connect operation without the use of tools
- Rugged design allows connect-under-pressure operation up to 5800 psi
- Maximum rated working pressure of 9000 psi exceeds the requirements of most applications
- Integral threaded dust cap protects the test point from damage and contamination
- EMA fittings are machined from solid barstock and protected with Chromium-6 Free plating.
- Stainless steel springs for corrosion resistance
- Elastomeric interface and valve seals provide leak free operation
- Compact design and optional high pressure hose assemblies provide flexibility for tight space requirements

### Specifications

Body Size	1/8
Rated Pressure (psi)	9000 PSI
Max Connect-Under-Pressure (psi)	5800
Rated Flow (GPM)	0.8
Body Material	Chromium-6 Free Plated Steel
Standard Seal Material	Nitrile (external) Fluorocarbon (internal)
Temperature Range (std. seals)	-15° to +250° F

### Male Pipe Thread



Part Number	Port Thread Size	Wrench Flats	Interface Thread Size	Overall Length	Weight
EMA3/1/8NPT	1/8-27NPT	17	M16X2.0	1.81	0.15
EMA3/1/4NPT	1/4-18NPT	17	M16X2.0	1.98	0.16
EMA3/1/4NPT71 Stainless Steel	1/4-18NPT	17	M16X2.0	1.95	0.16

### SAE Straight Thread



Part Number	Port Thread Size	Wrench Flats	Interface Thread Size	Overall Length	Weight
EMA3/7/16-20UNF-2A*	7/16-20UNF-2A	17	M16X2.0	1.88	0.15
EMA3/9/16-18UNF-2A*	9/16-18UNF-2A	19	M16X2.0	1.88	0.17

\* O-Ring seal on port

**Metric Straight Thread**



Part Number	Port Thread Size	Wrench Flats	Interface Thread Size	Overall Length	Weight
EMA3/M8X10R*	M8X1	17	M16X2.0	1.81	0.15
EMA3/10X1ED**	M10X1	17	M16X2.0	1.85	0.15
EMA3/12X1.5ED**	M12X1.5	17	M16X2.0	1.94	0.16
EMA3/14X1.5ED**	M14X1.5	19	M16X2.0	1.94	0.16

\* O-Ring seal on port \*\*Molded seal on port

**British Parallel Pipe**



Part Number	Port Thread Size	Wrench Flats	Interface Thread Size	Overall Length	Weight
EMA3/1/8ED**	1/8 BSPP	19	M16X2.0	1.77	0.15
EMA3/1/4ED**	1/4 BSPP	19	M16X2.0	1.94	0.16
EMA3/3/8ED**	3/8 BSPP	21	M16X2.0	1.94	0.16

\*\*Molded seal on port

**EMA Gauge Adapter**



Part Number	Port Thread Size	Wrench Flats	Port Thread Size	Overall Length	Weight
MAV1/4NPT-MA3	1/4-18NPT	19	M16X2.0	2.22	0.16
MAV1/4NPT-MA3-KM Includes Dust Cap	1/4-18NPT	19	M16X2.0	2.22	0.23

**EMA Gauge Adapter**



Part Number	Port Thread Size	Wrench Flats	Port Thread Size	Overall Length	Weight
MAVMD1/4NPT-MA3	1/4-18NPT	19	M16X2.0	2.22	0.18

**Union**



Part Number	Port Thread Size	Wrench Flats	Port Thread Size	Overall Length	Weight
EMA3VS	M16X2.0	17	M16X2.0	1.65	0.11

F Diagnostic

**Transducer Adapters 1/2 - 14 BSPP Thread\***



Part Number	Overall Length	Weight	Largest Diameter	Port Thread Size	Interface Thread Size	Weight
PD288	2.52	1.19	1.38	1/2-14BSPP	-	0.35



PDP288	2.58	1.19	1.38	1/2-14BSPP	-	0.35
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SCA-1/2-EMA-3	2.07	27mm	-	1/2-14BSPP	M16X2.0	0.30
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\* Note: For old style M22X1.5 thread contact QCD

**Flexible Hose**



Part Number	Length (in.)	Length (mm)	Thread Size A
SMA3-200	7.90	200	M16x2.0
SMA3-400	15.75	400	M16x2.0
SMA3-800	31.50	800	M16x2.0
SMA3-2000	78.75	2000	M16x2.0
SMA3-4000	157.50	4000	M16x2.0

Note: Other lengths available upon request.  
Maximum pressure rating for test hose is 9000 psi.



These diagnostic fluid sampling products are designed to provide an easy access point for obtaining fluid samples. A permanently mounted test point eliminates the need to shut down or break lines when taking samples and reduces the chances of contamination. Fluid analysis is crucial in both engines and hydraulic systems as it can reveal problems with filtration and other internal components. Early detection can prevent costly repairs, unscheduled maintenance and production downtime. These fluid sampling nipples should be installed in either low pressure or return lines. For the most accurate monitoring, fluid samples should be constantly taken from the same location.

Specifications	
Body Size	1/8
Rated Pressure (PSI)	500 PSI
Seal Material	Fluorocarbon
Temperature Range (std. seals (Fluorocarbon))	-40° to +250° F

## Couplers- Female Thread



Body Size	Part Number	Female Thread NPTF	Female Thread ORB	Overall Length	Wrench Flats	Largest Diameter	Weight
1/8	PDFS242	1/4-18	-	2.15	0.81	0.96	0.25

## Nipples- Male Thread



Body Size	Part Number	Thread Size ORB or NPTF	Thread Size Metric	Overall Length	Exposed Length	Wrench Flats	Largest Diameter	Weight
1/8	BPDFS341	7/16-20 ORB		1.60	0.90	0.69	0.79	0.08
1/8	BPDFS343	1/4-18 NPTF		1.48	0.78	0.69	0.79	0.06
1/8	PDFS-PROBE*		NA	-	-	-	-	-

Fluorocarbon seal is standard.  
Dust Cap PD6-285 is recommended.