

System20

Inline Sensors & Monitors



Effective in-line system sensors and monitors

In-line System20 sensors and hand-held monitors designed to give accurate and instant fluid system readings of flow, pressure and temperature. 3 sizes of inline System20 sensor for pressures up to 6,000 PSI (420 bar), an analog monitor that utilizes 3 day-glow gauges with protective cover. EM20 electronic monitor with full digital display and 300 test memory.



Product Features

- 2 types of System20 sensor are available.
STI = industrial with reverse flow capability.
STS = mobile without reverse flow capability.
- 3 sizes of industrial inline System20 sensor for pressures up to 6,000 PSI (420 bar). 2 sizes of Mobile System20 sensor.
- Analog monitor utilizes 3 day-glow gauges with protective cover.
- EM20 electronic monitor with full digital display and 300 test memory.
- For use with all mineral oils, water and oil/water emulsions.

System20

Features & Benefits

Covering a wide range of flow rates, fluid types and applications, Parker's System 20 sensors are designed to be used with System 20 electronic or analog monitors, icountLCM and the icountPD. Specially developed System20 sensors are available for use with phosphate ester fluids (EPDM Seals).

- System20 monitors, combined with the inline sensor, give the user accurate and instant readings of flow, pressure and temperature without the need for costly system downtime.
- For use with all mineral oils, water and water/oil emulsions.

Analog Monitor (STM)

- Utilizes 3 Day-Glo dial gauges with a protective hinged cover.
- Calibrated up to 100 gpm with dual scale PSI/bar & °F/°C. (USGPM also available)

Electronic Monitor (EM20)

- Gives a full digital display.
- Automatically calibrated for all 3 sizes of sensor.
- Indicates line, differential and rising peak pressure.
- Easily scrolled from metric to US.
- 300 test memory.
- Capable of downloading saved data to download software.

Typical Applications

- Drilling equipment
- Mining
- Grinding and conveying
- Industrial hydraulics
- Mobile applications

Hydraulic system users need to ensure that lost production is kept to the absolute minimum. To ensure this, predictive maintenance utilizing routine condition monitoring of hydraulic systems is essential.



Industrial STI family



2 sizes of System20 Inline Mobile Sensors are available

System20

Specifications: Sensors

Construction:

Industrial: (STI)

Body: 303 SS

Internal components: SS and Brass

Mobile: (STS)

Body: 303 SS

Internal components: Cast Aluminium and SS

Flow Capacities:

All suitable for use with oil, water and oil/water emulsion

Size 0: 0.5-7 GPM (6-25 l/min)

Size 1: 5-26 GPM (20-100 l/min)

Size 2: 21-100 GPM (80-380 l/min)

Max. Working Pressure:

6,000 PSI (420 bar)

Capability:

Reverse flow (STI only)

Pressure Drop:

At max. rated flow, Δp is 16 psi (1.1 bar), mineral oil fluid at 30 cSt 140 SSU

Ports:

Size 0: SAE-6, G6

Size 1: SAE-12, G12

Size 2: SAE-20, G20

Repeatability:

±1% FSD

Accuracy:

Flow ±2.5% full scale deflection*

Weight:

Size 0: 1.2 lbs. (0.5kg)

Size 1: 8.4 lbs. (3.5kg)

Size 2: 9 lbs. (4.4kg)

Aggressive Fluid Applications:

EPDM internal/external seals



Dimensions inches (mm)

	Size	Model	AØ	B	C
Industrial	0	STI	1.18 (30)	3.74 (95)	2.20 (56)
	1	STI	1.61 (41)	5.39 (137)	2.62 (66.5)
	2	STI	2.63 (66.7)	9.11 (231.3)	2.89 (73.5)
Mobile	1	STS	1.61 (41)	4.13 (105)	3.11 (79)
	2	STS	2.36 (60)	6.5 (165)	3.82 (97)

Ordering Information

Standard products table

Part Number	Size	Flow Range (GPM)	Fluid Type	Port	Reverse Flow Capability
S.850001	0	.5-7	Mineral	SAE-6	Yes
STI.1344.100	1	5-26	Mineral	SAE-12	Yes
STI.2344.100	2	21-100	Mineral	SAE-20	Yes
STI.0144.100	0	.5-7	Mineral	G6	Yes
STI.1144.100	1	5-26	Mineral	G12	Yes
STI.2144.100	2	21-100	Mineral	G20	Yes
STI.1348.100	1	5-26	Aggressive	SAE-12	Yes
STI.2348.100	2	21-100	Aggressive	SAE-20	Yes
STS.5117.210	1	5-26	Mineral	SAE-12	No
STS.5217.210	2	21-100	Mineral	SAE-20	No

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Note 3: Mobile Sensors are also available - Contact Parker

Note 4: *Accuracy 5.5% > 25 gpm. (Applies to STI1144100 and STI1148100 only)

System20

Electronic Monitor Specification

Construction:

A sealed assembly requiring no routine maintenance or adjustment. Body moulded in ABS. Key pad moulded in silicon rubber. The monitor is suitable for use with all mineral oils, water and oil/water emulsions.

Display Details

Flow section:

The analog flow scale has reverse flow and overflow indication and provides a percentage reading of the digital full scale display automatically calibrated for all sizes of System 20 Sensor.

Pressure Section:

Designed to indicate line pressure, differential pressure and rising peak pressure. Connected to a System 20 Sensor it will monitor pressure up to 6,000 PSI (420 bar) with an accuracy of $\pm 1\%$ FSD.

Temperature Section:

Temperature reading between 14°F to 230°F (-10°C and +110°C).

Weight:

3 lbs. (1.4kg)

Data Logging:

Each test logs the following data:

Test number; time & date; sensor size; media tested; flow rate, pressure & temperature.

Data Download:

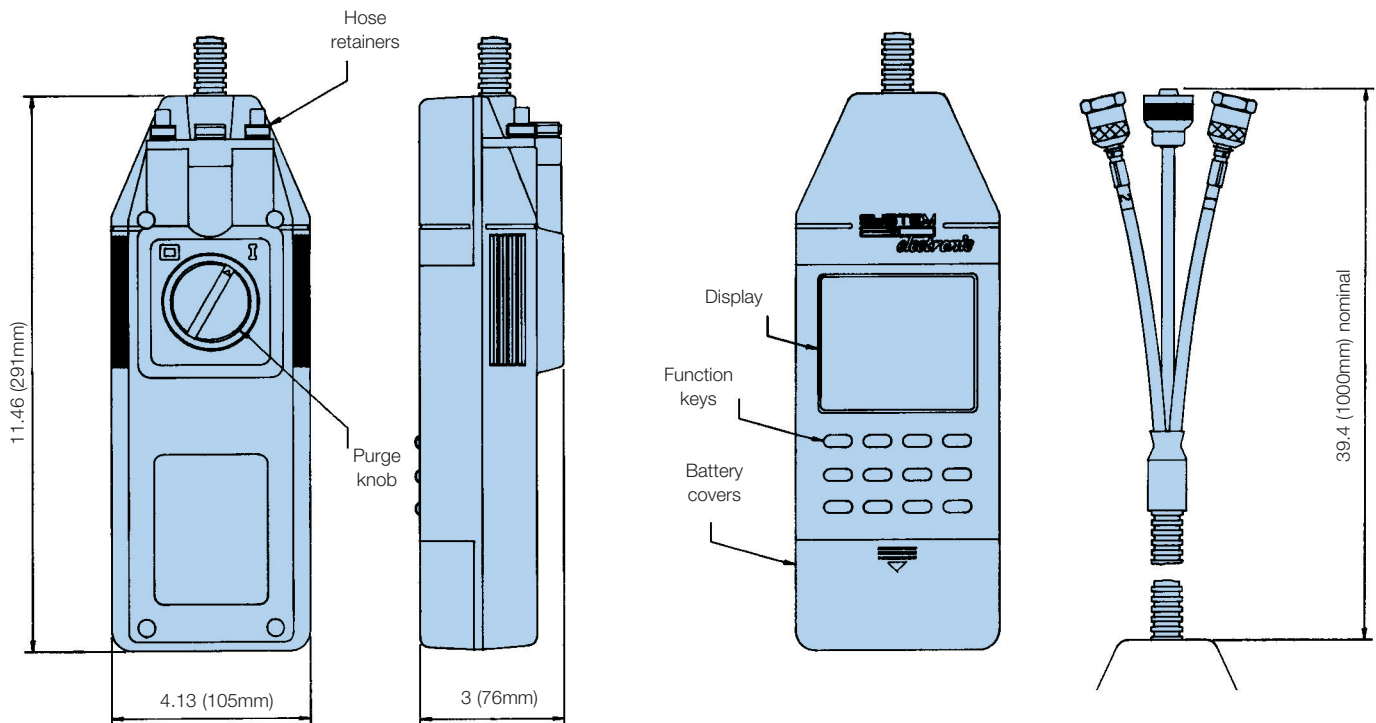
The System 20 electronic monitor is capable of downloading saved test data to a compatible PC via an RS232 connection using datum.

Batteries:

6 x AA batteries.

Re-calibration:

Annual certification by an approved Parker Service Center.



Ordering Information

Standard products table

Part Number	Supersedes	Description
EM209000	EM20.9000	System 20 electronic monitor
ACC6NK000	P653607	Transit case*
ACC6NJ001	B85617	Dongle and cable assembly*

* Not included with monitor.

dimensions in inch (mm)

System20

Analog Monitor

Construction:

A sealed assembly requiring no routine maintenance or adjustment. Body moulding in ABS. The monitor is suitable for use with all mineral oils, water and oil/water emulsions. The monitor has 3 day-glo dial gauges and features a protective hinged cover.

Display Details

Flow Section:

The flow scale has double scales for size 1 and 2 sensors only. Calibrated up to 26 GPM (100 l/min) and 100 GPM (380 l/min). The flow dial has excess-flow indication.

When the system is in reverse flow or when the high pressure lines to the sensor have been transposed, a 'below zero' indication is given.

Pressure Section:

Dial readings in both bar and psi up to 6,000 PSI (420 bar).

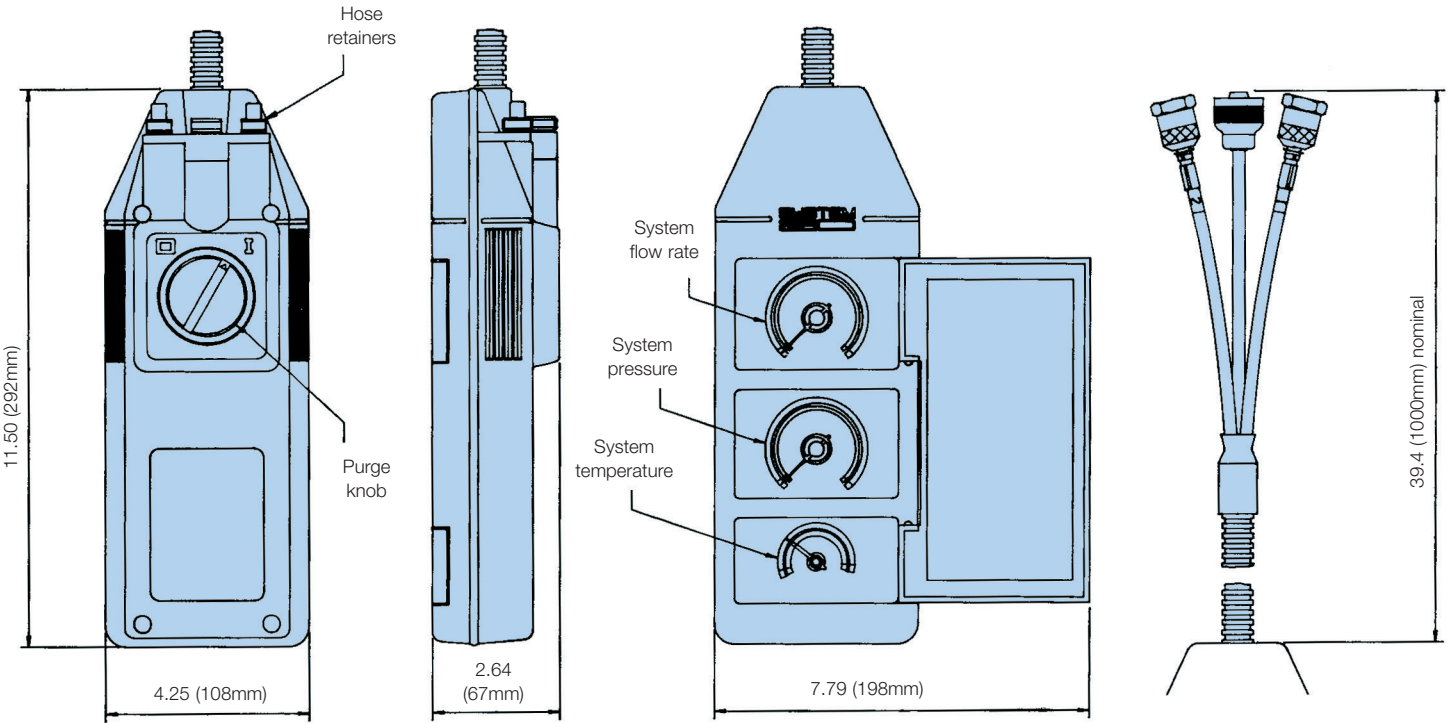
Temperature section:

The temperature dial gives readings between 14°F to 230°F (-10°C and +110°C).

Weight:

3 lbs. (1.4kg)

A viscosity chart is provided for mineral oil applications where monitoring is required at variable viscosities (cSt).



dimensions in inch (mm)

Ordering Information

Standard products table

Part Number	Supersedes	Media Type	Flow Readings	Pressure Readings	Temperature Readings
STM6211110	STM.6211.110	Oil	l/min	Dual scale PSI/bar	Dual scale°F/°C
STM6611110	STM.6611.110	Oil	GPM	Dual scale PSI/bar	Dual scale°F/°C
STM6211120	STM.6211.120	Water	l/min	Dual scale PSI/bar	Dual scale°F/°C
STM6611120	STM.6611.120	Water	GPM	Dual scale PSI/bar	Dual scale°F/°C

Accessories

Product Number	Supersedes	Description
ACC6NJ000	P653607	Transit Case
ACC6NJ002	P653106	Metal sensor protective cap