

# SciPres™ Pressure Sensors\*

## Pre-Calibrated Single-Use or Reuse



- Filtration
- Chromatography
- Fermentation
- Bag Manifolds

### SciPres Cost Effective Pressure Flow Cells with Stored Sensor ID & Calibration Data

SciPres monitors 3 pressure sensors and displays P1, P2, P3, and either Differential Pressure (DP) or Transmembrane Pressure (TM).

- Pre-Calibrated
- NIST-Traceable
- Certified Calibration
- Gamma-stable
- Autoclavable
- NaOH stable
- Real-Time Documentation

Call **800-955-1993** to order SciLog in-line, single-use flow cells and SciLog's Automated, Optimized Bioprocessing Systems.



Real-Time Data Collection

Time	Pressure 1	Pressure 2	Pressure 3	TMP
13:00:00	25.0	25.0	0.0	22.5
13:00:30	25.0	25.0	0.0	22.5
13:01:00	25.0	25.0	0.0	22.5
13:01:30	25.0	25.0	0.0	22.5
13:02:00	25.0	25.0	0.0	22.5
13:02:30	25.0	25.0	0.0	22.5
13:03:00	25.0	25.0	0.0	22.5
13:03:30	25.0	25.0	0.0	22.5
13:04:00	25.0	25.0	0.0	22.5

Try SciLog's family of pre-calibrated, single-use, in-line sensors\*: **Conductivity, Temperature, Pressure. Scale-up or Scale-down.**



\*Patents Pending

## SciPres Sensor Specifications: Flow Rate & Pressure Limits

CONNECTOR TYPE	PART # Packs of 5	Compatible TUBING SIZES	Max FLOW RATE*	Max PRESSURE
Luer	080-699PSX-5	ID 0.03" to 0.31"	1 liters/min	60 psi
3/8" Barb	080-694PSX-5	ID 0.31" to 0.38"	8 liters/min	60 psi
1/2" Barb	080-695PSX-5	ID 0.50"	17 liters/min	60 psi
3/4" Tri-Clover (TC)	080-696PSX-5	Tubing with 3/4" TC	31 liters/min	60 psi
1.0" TC "Ladish"	080-697PSX-5	Tubing with 1" TC Ladish	60 liters/min	60 psi

\*At 1.0 psi pressure drop across SciPres flow-through sensor.

## SciPres Flow-Thru Pressure Sensor Specifications

**Material, Fluid Contact:** Medical Grade Polysulfone meets USP Class VI and FDA 21CFR177.1520. All Wetted Materials are made of Animal-Free Compounds. Compatible with Most Sanitizing Agents such as NaOH, Hypochlorite, for Flow Cell Sanitization. Can be Sterilized. Autoclavable and Gamma stable.

**Sensor Type:** Medical Grade, Silicone Piezoresistive Sensing Element with On-Chip Temperature Compensation.

**Sensor Isolation:** Insoluble Silicone Dielectric Gel Isolates Sensing Element from Process Solution. The Gel is a Non-Toxic, Non-Allergenic Elastomer System that meets all USP XX Biological Class V Requirements.

**Pressure Range:** -5 to 60 psi.

**Pressure Accuracy:** ± 0.30 psi.

**Pressure Resolution:** 0.01 psi **Temperature Range:** 0-60° C.

**Sensor Microchip:** EPROM, Stored Sensor ID and Cal Factor.

**Sensor Connector & Cables:** Lockable & Waterproof.

## SciPres Pressure Monitor (Part#080-690) Specifications

### ELECTRICAL

**Sensor Inputs:** Up to Three SciLog Pressure Sensors (P1, P2, P3) Simultaneously.

**Sensor Readout:** Display of Sensor P1, P2 and P3 as well as Differential Pressure: DP = (P1 - P2) and Transmembrane Pressure: TM = [(P1 + P2/2) - P3]. Display of DP and TM are User-Selectable.

**Analog Outputs:** 4-20 mA Outputs for P1, P2, P3, and DP or TM, 18 Bit Resolution.

**Digital Output:** RS-232.

**Alarm Outputs:** 4 TTL Switches, User-Selectable Hi/Lo Pressure Limit Settings for P1, P2, P3, and DP or TM.

**Power Supply:** Wall Transformer (Lab Option); 115/230 VAC (Process Option).

**Display:** 2 Lines, 20 Characters each, Backlit.

**Data Entry:** Membrane Switch, 6 Keys.

### SOFTWARE — SELECTABLE PARAMETERS

**Pressure Units:** psi, kpa, bar, mmHg.

**User Selectable 4-20 mA span:** Min = 0.0 psi, Analog Out at 0%.  
Max = 100 psi, Analog Out at 100%.

**Serial Com:** BR=9600, WL=8, SB=2, PT=N.

**Print Time:** User Selectable, 1 to 60 Seconds.

**Display Mode:** Transmembrane Pressure (TM) or Differential Pressure (DP) as well as Display of P1, P2 and P3.

**Alarm Outputs:** P1 Hi/Lo  
P2 Hi/Lo  
P3 Hi/Lo  
TM/DP Hi/Lo

**Time/Date:** All Data Printout with Time/Date Stamp.

**Lock-Out:** On/Off, Requires Password (optional).

**Re-Cal:** Custom Calibration of Sensors.

### SciDoc Real-Time Documentation/Graphing

The screenshot shows the SciLog SciPres Monitor software interface. It features a data table with columns for Time, Pressure 1, Pressure 2, Pressure 3, TMP, and Alarm. A configuration window is overlaid on the table, displaying various sensor parameters and alarm settings.

Time	Pressure 1	Pressure 2	Pressure 3	TMP	Alarm
19:00:00	25.0	20.0	0.0	22.5	
19:00:30	25.0	20.0	0.0	22.5	
19:01:00	25.0	20.0	0.0	22.5	
19:01:30	25.0	20.0	0.0	22.5	
19:02:00	25.0	20.0	0.0	22.5	
19:02:30	25.0	20.0	0.0	22.5	
19:03:00	25.0	20.0	0.0	22.5	
19:03:30	25.0	20.0	0.0	22.5	
19:04:00	25.0	20.0	0.0	22.5	
19:04:30	25.0	20.0	0.0	22.5	
19:05:00	25.0	20.0	0.0	22.5	
19:05:30	25.0	20.0	0.0	22.5	
19:06:00	25.0	20.0	0.0	22.5	
19:06:30	25.0	20.0	0.0	22.5	
19:07:00	25.0	20.0	0.0	22.5	
19:07:30	25.0	20.0	0.0	22.5	
19:08:00	25.0	20.0	0.0	22.5	
19:08:30	25.0	20.0	0.0	22.5	
19:09:00	25.0	20.0	0.0	22.5	
19:09:30	25.0	20.0	0.0	22.5	
19:10:00	25.0	20.0	0.0	22.5	

**Parameter Configuration Window:**

06/20/06, SciPres v0.20, psi, ALARMS: HP1=0.00psi LP1=0.00psi, HP2=0.00psi LP2=0.00psi, HP3=1.00psi LP3=0.00psi, CCF=1.00, HZP=0.0014, CFP=1.00, P2=0.0027, CCF=1.0, Sensor 2 ID=01400000-0206, HCF=1.005, HZP=0.0014, CFP=1.000, P2=0.0027, CCF=1.0, Sensor 3 ID=01400000-0206, HCF=1.005, HZP=0.0014, CFP=1.000, P2=0.0027, CCF=1.0

Buttons: ComPort Setup, Operator Info, Clear Data

Bottom status bar: M \ Data / Conductivity & Temp vs. Time / 77.5