

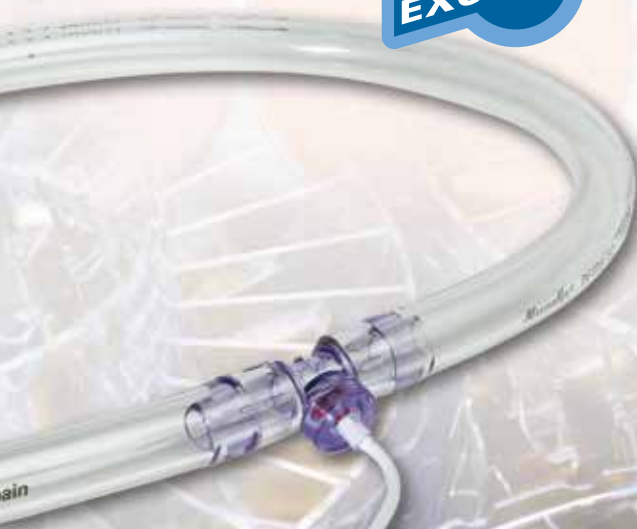


# Cole-Parmer®

## PENDOTECH PRESSURE MONITORING SYSTEM

THE EASY WAY TO ENSURE  
ACCURACY AND QUALITY IN YOUR  
FLUID HANDLING PROCESSES

**Cole-Parmer®**  
**EXCLUSIVE**



# PendoTECH Pressure Monitoring System

Introducing the PendoTECH pressure monitoring and transmitting system, the easy solution for your bioprocessing needs. This innovative system measures static and dynamic pressures but eliminates costly stainless steel pressure sensors that require repeated cleaning. By integrating single-use pressure sensors with a standard monitor, PendoTECH ensures system integrity while saving you time and cleaning costs.

- Models available to integrate disposable rotary flow meter
- No more downtime to clean conventional stainless steel sensors
- A simple way to integrate scales, valves, pumps, and alarms
- Multiple sensor options match the scale of your production process

## APPLICATIONS

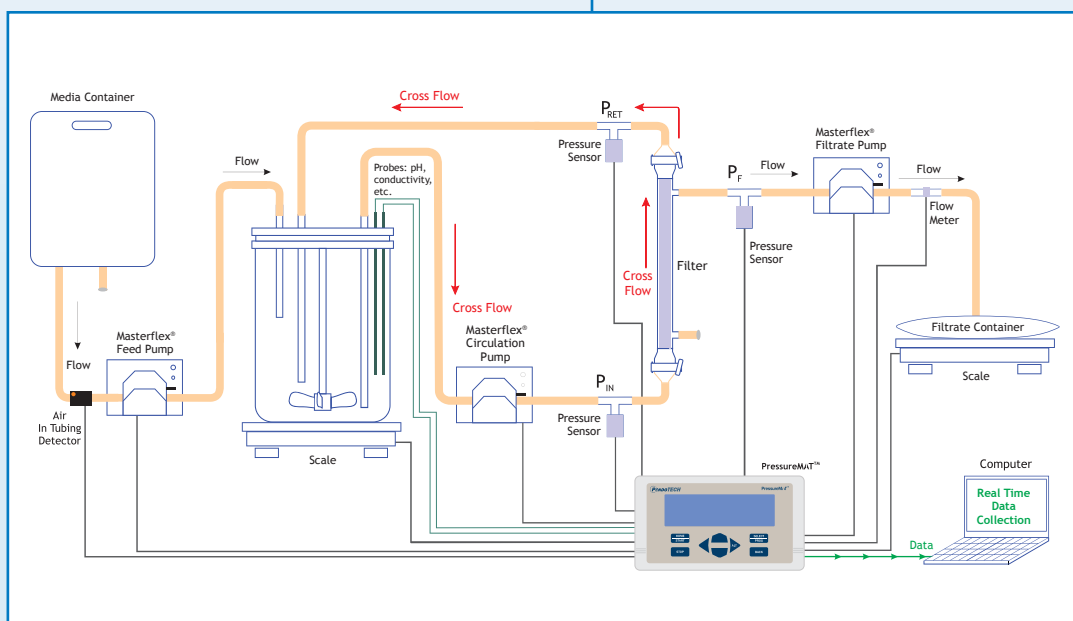
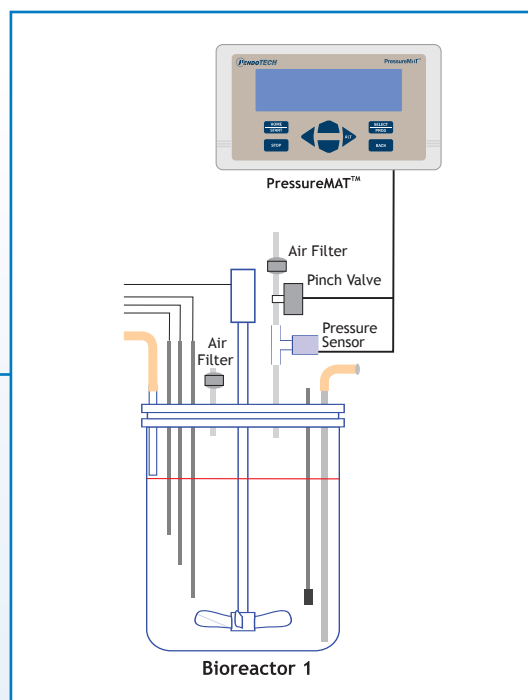
Easy integration into several different areas of your process including bioreactor control, filter screening, depth filtration, cross flow filtration, chromatography, liquid transfer, and fill operations.

## BIOREACTOR MONITORING

- An easy solution to provide pressure relief and control in your reactor chamber

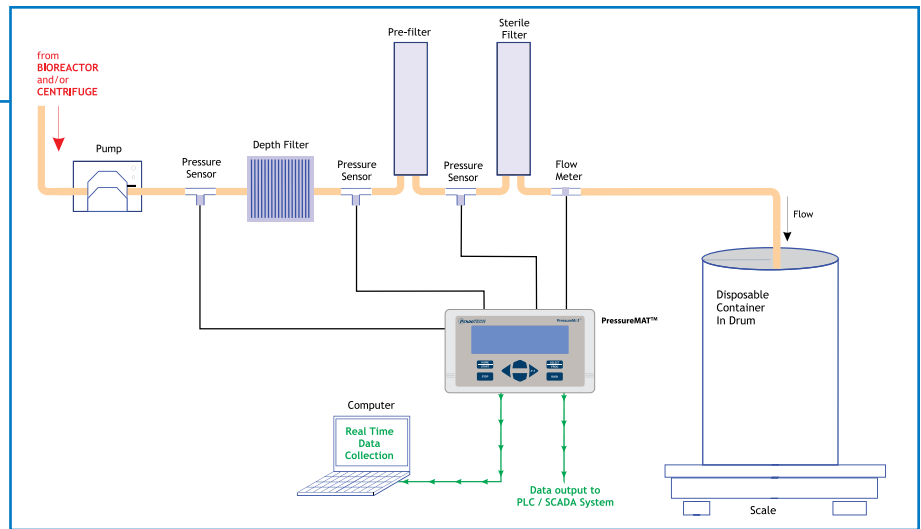
## TANGENTIAL FLOW FILTRATION

- Concentration and diafiltration of proteins
- Cell culture harvest and perfusion processes



## DEPTH FILTRATION

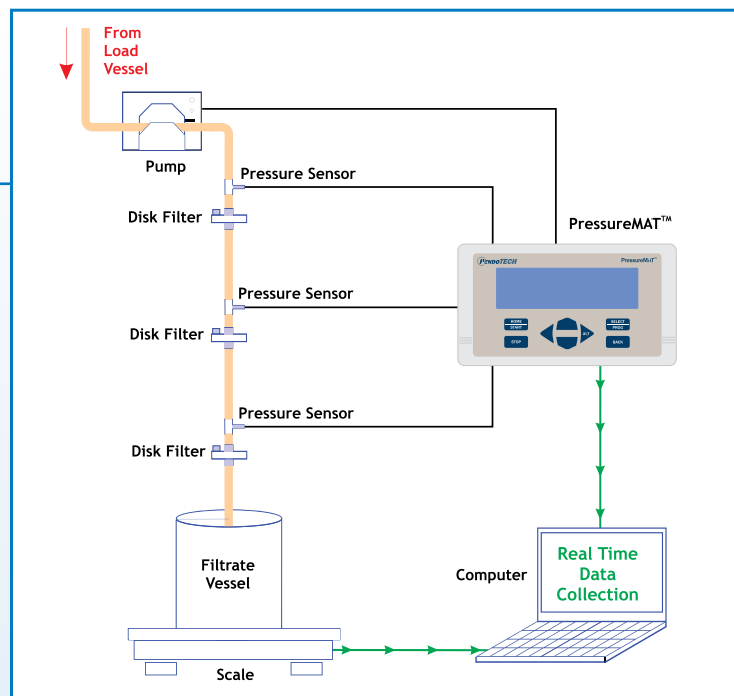
- Ideal for depth filtration, cell removal, or filter screening for constant flow processes
- Monitor back pressure from successive depth, pre-, and sterile filter elements
- Monitor flow with model that offers input for disposable rotary flow meter



## FILTER SCREENING

- Use for scale-up or development to determine optimal filter size and sequence
- Set high/low points to control pumps, valves, and/or alarms.

**For further information,  
go to [ColeParmer.com](http://ColeParmer.com)**

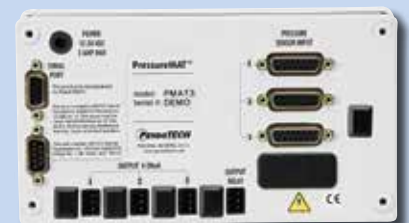


## HOW THE SYSTEM WORKS

Single-use sensors allow maximum versatility in your system design. They are available for ¼" to 1" tubing ID, in either process-scale or small-scale sizes, and in sterile or non-sterile packaging. Select either polycarbonate or caustic-resistant polysulfone material—both are an economical alternative to stainless steel sensors currently in the market. Sensors are priced for single-use systems but may be reused. Connect sensor to monitor with included 12-foot cable.

The complete PendoTECH system requires a PressureMAT™ monitor and up to four single-use pressure sensors.

Choose your PressureMAT monitor according to the number of sensor inputs required (1 to 4); each channel takes pressure readings once per second. The monitor features easy-to-read LCD, user-configurable alarms, and single-button zero calibration. The unit may also transmit output via a 4 to 20 mA signal or can provide RS-232 data transfer for use in common PC applications, such as Excel®, through WinWedge or Hyper Terminal software.





**FREE TECHNICAL APPLICATIONS ASSISTANCE!**

**In the U.S.**

625 E. Bunker Court  
Vernon Hills, IL 60061  
Call toll-free 800-323-4340  
Phone: 847-549-7600  
Fax: 847-247-2929  
[www.coleparmer.com](http://www.coleparmer.com)

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Fax: 514-355-7119  
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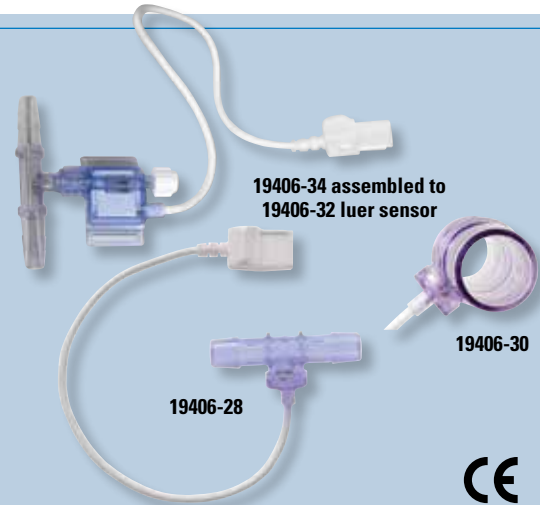
Phone: 91-22-6139-4444  
Fax: 91-22-6139-4422  
[www.coleparmer.in](http://www.coleparmer.in)

**International customers**

Call 847-549-7600 to reach our International Sales Department or contact your local dealer.

## PERFORMANCE SPECIFICATIONS

- All fluid path materials meet USP Class VI requirements
- Integral flow sensor with no dead legs and no fluid path obstructions
- Sensors are manufactured in a FDA-registered, ISO 13485-certified facility; in an ISO Class 8 (formerly Class 100,000) cleanroom
- Sensors are 100% factory tested for accuracy and leaks; certificate of quality is included with each sensor
- Both polycarbonate and caustic-resistant polysulfone sensor materials can be gamma irradiated up to 50 kG



### PressureMAT Monitors

Catalog number	Number of process sensor inputs	Number of outputs	Accuracy	Display	Power	Dimensions (W x H x D)
<a href="#">ML-19406-00</a>	1 pressure	1 relay, 1 analog	±0.1% full scale	8-line backlit LCD	12 to 24 VDC	7 7/8" x 4 1/2" x 2 1/4" (20 x 11.4 x 5.7 cm)
<a href="#">ML-19406-02</a>	2 pressure	2 relay, 2 analog; or 4 relay				
<a href="#">ML-19406-04</a>	3 pressure	1 relay, 3 analog				
<a href="#">ML-19406-06</a>	4 pressure	4 analog				
<a href="#">ML-19406-08</a>	4 pressure	4 relay				
<a href="#">ML-19406-10</a>	3 pressure, 1 flow	4 analog				

[ML-19406-80](#) Cable adapter for monitor with 4-wire leads (12 ft / 4 m)

[ML-19406-82](#) RS-232 cable for PressureMAT data output for USB (6 ft / 2 m)

[ML-19406-84](#) Cable adapter with RJ12 phone connector to Spectrum Pump (6 ft / 2 m)

[ML-19406-85](#) RS-232 cable with RJ12 phone connector to SciLog Pump (6 ft / 2 m)

[ML-19406-86](#) Cable adaptor with RJ12 phone connector to Midgee Monitor (6 ft / 2 m)

[ML-19406-95](#) Benchtop stand for PressureMAT Monitor

### Single-Use Pressure Sensors

Catalog number	Material	Connection size, inches (mm)	Pressure range	Accuracy	Operating temperature
<b>Process-scale sensors</b> (connect directly as a barbed fitting to tubing line)					
<a href="#">ML-19406-27</a>	Polycarbonate, non-sterile	1/4" (6.4)	-7 to 75 psi (-0.48 to 5.2 bar)	±2% of reading from 0 to 6 psi, ±3% of reading from 6 to 22 psi	59 to 104°F (15 to 40°C)
<a href="#">ML-19406-28</a>		1/2" (12.7)			
<a href="#">ML-19406-30</a>		1" (25.4)			
<a href="#">ML-19406-21</a>	Polysulfone, non-sterile	1/4" (6.4)			
<a href="#">ML-19406-22</a>		1/2" (12.7)			
<a href="#">ML-19406-24</a>		3/4" (19.1)			
<b>Small-scale sensors</b> (connect directly to fluid line with luer adapter or indirectly with a barbed adapter tee; both connection setups have been tested for accuracy)					
<a href="#">ML-19406-32</a>	Polycarbonate, sterile	Female luer	-7 to 75 psi (-0.48 to 5.2 bar)	±2% of reading from 0 to 6 psi, ±3% of reading from 6 to 22 psi	59 to 104°F (15 to 40°C)
<a href="#">ML-19406-20</a>	Polysulfone, non-sterile				

**Note:** The single-use sensors will work with third-party pressure monitors. Contact Cole-Parmer for more information about adapting the sensors to existing monitors.

[ML-19406-34](#) Adapter tee, 1/4" barb x 1/4" barb x male luer, polycarbonate; for 19406-22, -32

[ML-19406-36](#) Adapter tee, 3/8" barb x 3/8" barb x male luer, polycarbonate; for 19406-22, -32

