



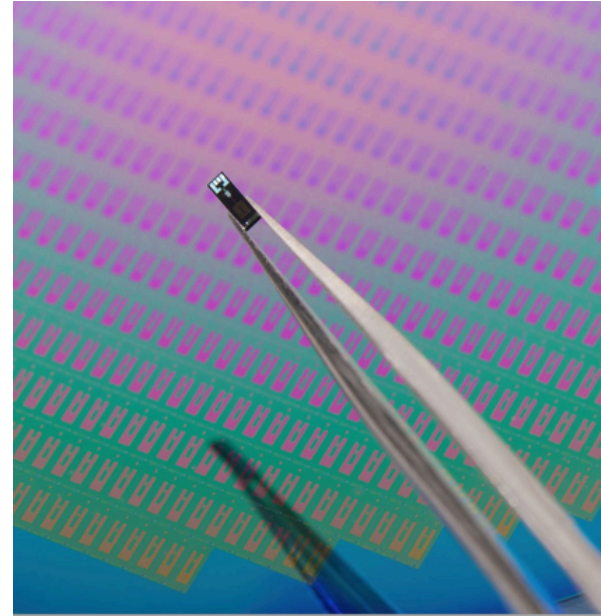
Mikro-Sense™ Portfolio

Advanced Solutions from our Microfoundry

Tailoring solutions for small to medium-sized device manufacturers, Millar is the ideal vertical integration partner specializing in end-to-end MEMS pressure and pH sensor design, fabrication, integration, and full-volume manufacturing. Our microfoundry is the heart of Millar's sensor development process, offering off-the-shelf and custom solutions to meet our customers' unique needs.

By utilizing Millar's Microfoundry and a 3" wafer platform, we can prioritize:

- **Speed to Market:** Faster prototyping and reduced time from concept to prototyping to commercialization.
- **Cost-Effective Solutions:** Competitive pricing compared to larger wafer sizes (6" or 8") supplied by other foundries.
- **Tailored Production:** Smaller wafers enable smaller batches and are ideal for smaller volumes.
- **Startup-Friendly:** Perfect for start-up and early-stage device conceptualization and development.
- **Trusted Global Partnerships:** Millar has strategic partnerships with leading MEMS sensor foundries for larger-scale projects, ensuring seamless scalability and access to specialized resources and larger quantities.



MikroSense™ Sensor Portfolio

Pressure Sensors	PFB1100 Full Bridge	PFB1000 Full Bridge	PFB800* Full Bridge	PFB440* Full Bridge	PHB225 Half Bridge
	 3000µm 3mm 1100µm 1.1mm	 1800µm 1.8mm 1000µm 1mm	 1600µm 1.6mm 800µm 0.8mm	 1000µm 1mm 440µm 0.44mm	 650 µm .6mm 225µm 0.25mm
pH Sensors	ISFET1000	ISFET800	ISFET520*		
	 3000µm 3mm 1000µm 1mm	 1700µm 1.7mm 800µm .8mm	 1665µm 1.6mm 520µm .5mm		

* Sensor Currently in R&D

MikroSense™ Sensor Specifications

Pressure Sensors					
	PFB1100 Full Bridge	PFB1000 Full Bridge	PFB800* Full Bridge	PFB440* Full Bridge	PHB225* Half Bridge
Circuit	4 MEMS piezoresistors				2 MEMS piezoresistors
Sensitivity	8-15 µV/V/mmHg				5 µV/V/mmHg
Pressure Range	-300 to +1000 mmHg				-50 to 300 mmHg
Accuracy & Linearity	< 1% error over -50 to 200 mmHg applied pressure				+/- 1% error over -50 to 150 mmHg applied pressure
Temperature Error	< 1% (15-40) deg C.				<3.5% (15-40) deg C.
Drift	Average = 0.2 ± 0.1 mmHg over 3 hours				Average = 0.89 ± 0.44 mmHg over 7 days
Bridge Resistance	3.9K to 5.1K				3.4 KΩ +/- 20%
Resolution	Analog output				
Sensor Type	Vented				Absolute

pH Sensors			
	ISFET1000	ISFET800	ISFET520*
Sensor	Glass-free Ion Sensitive Field Effect Transistor (ISFET) semiconductor		
pH Range	0-14 pH		
Accuracy	+/- 0.02 pH		
Resolution	0.01 pH		
Drift Maximal (in pH7 @ 25° C.)	0.14 pH/day		
Drift Typical (in pH7 @ 25° C.)	0.05 pH/day and lower		
Calibration	1,2,3 and 5-point calibration		
Automatic Temperature Compensated (ATC) calibration	Yes		

Industries We Serve

- Medical Device
- Industrial
- Agriculture
- Environmental Solutions
- Laboratory
- and more...

For inquiries, quotes, and orders, contact:

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Sentron Europe B.V. is now proudly part of Millar, LLC.

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