

InVue® Dissolved Oxygen Sensor

Advanced, optically based monitoring solution for detecting and monitoring low levels of dissolved oxygen in chemical plating applications

The presence of dissolved oxygen in chemical plating tools and baths poses a significant challenge for process chemistries. Uncontrolled levels of dissolved oxygen can lead to lower reactivity rates and increased corrosion of contacts. To address this essential process requirement, we offer the InVue® dissolved oxygen sensor, an advanced, optically-based, high-sensitivity luminophore (sensor) targeted to high-purity, aggressive chemical plating tool and bath applications.

Leveraging proven luminescence and detection technologies, the InVue dissolved oxygen sensor consistently measures dissolved oxygen levels with minimal intrusion into chemical plating applications. Utilizing a clean, silicone wetted membrane in a PTFE enclosure, the InVue sensor monitors levels of dissolved oxygen in metal reactive plating chemistries. This improves process yields, extends the lifetime of the tools and process chemistries, and ultimately lowers operational costs. The InVue sensor also has the potential for providing similar benefits to next-generation, sub-20 nm front-end-of-line (FEOL) and back-end-of-line (BEOL) fabs.



APPLICATIONS

- Chemical plating
- Metal reactive plating chemistries

PRODUCT BENEFITS

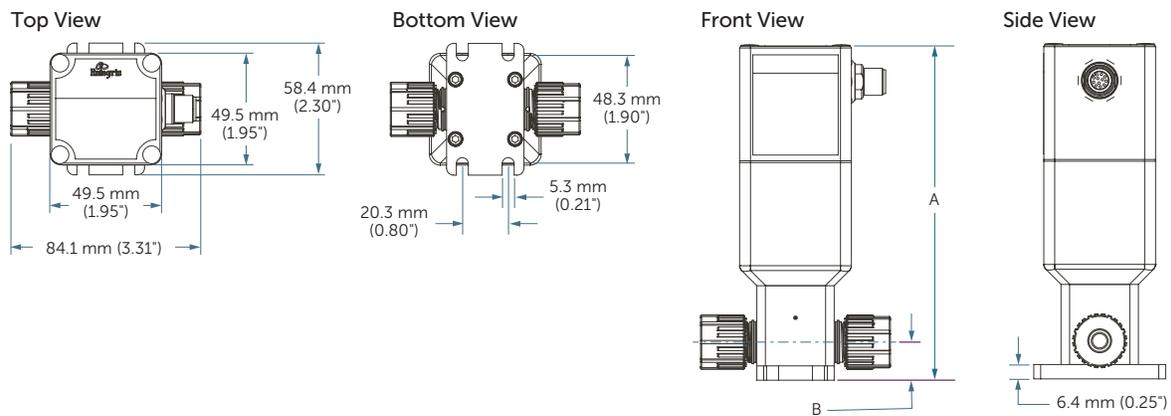
- High sensitivity, dissolved oxygen luminophore
 - Digital alarm output for early indication of end of luminophore life
 - Continuous mode operation
 - GUI software for calibration
 - No consumption of oxygen
- Two analog outputs
 - Concentration: Fast response for accurate concentration monitoring
 - Temperature: Integral temperature monitoring and real time compensation
- Compact footprint allows installations with limited space
 - Secondary seal design for added safety
 - Straight through flow path

SPECIFICATIONS

Materials of construction	Wetted parts	Body	PTFE
		Luminophore	Silicone rubber
		O-ring	Perfrez® PXC Ultra
	Nonwetted parts	Polypropylene, PVDF, Santoprene®-jacketed cable, Viton®, coated SST fasteners	
Process temperature	15–60°C (59–140°F)		
Operating pressure	0–276 kPa (0–40 psig)		
Range*	0.02 to 10 ppm at 15°C (59°F)		
Concentration resolution	±0.015 ppm		
Electrical input	24 VDC		
Electrical outputs	Two 0–5V outputs, one for concentration and one for temperature		
	Single digital output, switching from high (5V) to low (0V) upon alarming		

Regarding the solubility of chemical changes due to temperature, the upper end may be a higher level of dissolved oxygen if the temperature is lower.

DIMENSIONS

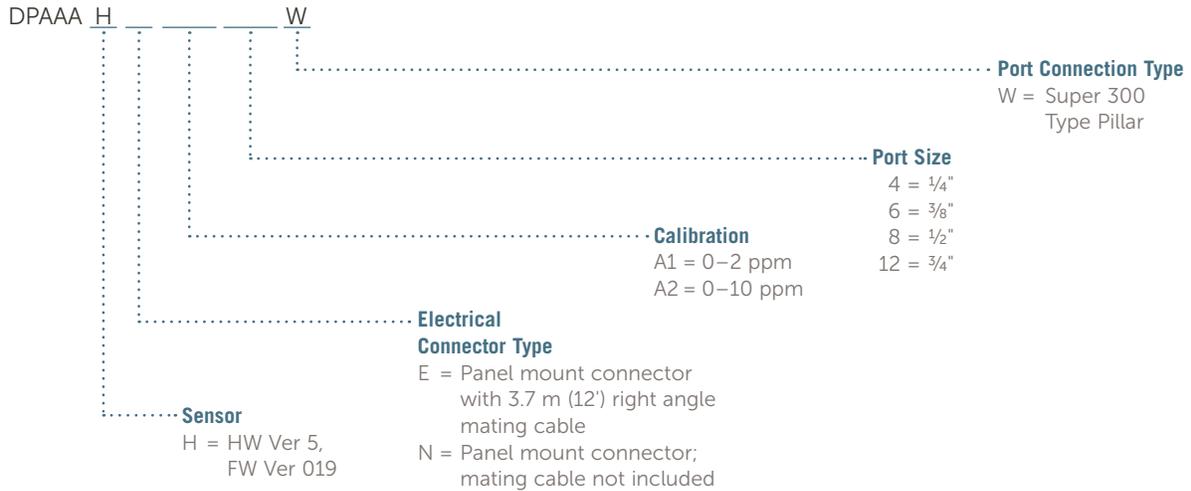


Port Connection	A	B
¼" Super 300 Type Pillar	145.0 mm (5.71")	16.3 mm (0.64")
⅜" Super 300 Type Pillar	148.1 mm (5.83")	16.9 mm (0.67")
½" Super 300 Type Pillar	151.4 mm (5.96")	19.2 mm (0.76")
¾" Super 300 Type Pillar	159.5 mm (6.28")	24.1 mm (0.95")

ORDERING INFORMATION

This information serves as a guide. Please contact your local representative to confirm part numbers.

InVue Dissolved Oxygen Sensors: part number



FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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