

# VisiFerm DO family



The VisiFerm DO is the first optical oxygen sensor with integrated opto-electronics, having the full functionality of a measuring device with self-diagnostics. It is steam sterilizable, autoclavable and CIP compatible. The VisiFerm requires less maintenance than a classical oxygen sensor as it does not have a mechanically sensitive membrane or a corrosive electrolyte.



“Did you know... that Hamilton invented the first optical DO sensor in 12 mm format?”

### Benefits

- ▶ No fragile membrane – with a solid sensor cap
- ▶ No polarization time required
- ▶ Instantly stable values, low drift, quick response
- ▶ Electrolyte-free, so no leakage
- ▶ Convenient precalibration in the laboratory, because data is stored in the sensor head

### Typical applications

- ▶ Ethanologenic fermentation
- ▶ Biotechnical fermentation
- ▶ Brewery fermentation, filtration, filling
- ▶ Proactive corrosion control in HVAC systems

### Specifications

Measuring range	4 ppb to 25 ppm (DO)
Measurement Principle	Oxygen dependent luminescence quenching
Response time $t_{98\%}$	< 30 s at 25 °C, from air to nitrogen
Process temperature	-10 to 140 °C, the sensor provides no DO reading above 85 °C
Operating voltage	7 to 30 VDC max. 1 W
Pressure range (relative to ambient)	-1 to 12 bar
Hygienic aspects	Autoclavable, CIP, SIP
Surface Quality	$R_a < 0.4 \mu\text{m}$ (N5)
Material	Stainless steel 1.4435
O-ring	EPDM

For more specifications see [www.hamiltoncompany.com](http://www.hamiltoncompany.com)

### Ordering Information

#### VisiFerm DO Family Structure

243666	Code		Interface	
	1		Arc	
	2		ECS	
			Code	a-length (mm)
		1	120	
		2	160	
		3	225	
		4	325	
		5	425	
			Code	ODO Cap
			1	H0
			2	H2
243666 –				← Order Code

**ODO Cap H0:** For general application in biotechnology, water treatment and monitoring as well as in breweries, wineries and soft drink processing.

**ODO Cap H2:** The ODO Cap H2 is designed for fermentation processes where sterilization in place (SIP) is performed in media containing higher amounts of lipophilic compounds. It comes with a hygienic design.

### Accessories



- **ODO Cap H0 Kit** Ref 243515
- **ODO Cap H2 Kit** Ref 243505

**Cables** see page 112  
**Arc Accessories** see page 116  
**Housings** see page 127

