

# VisiFerm mA family new



### 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	-20 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)

The VisiFerm mA is the optical dissolved oxygen (DO) sensor for use in explosive environment. VisiFerm mA optical technology improves the measuring performance and simplifies maintenance. Improvements compared to conventional electrochemical (amperometric) sensors include flow independence, rapid startup with no polarization time, and simplified maintenance.

Designed especially for production environments, the new VisiFerm mA is a 2-wire sensor with 4-20 mA standard or digital HART signal output, and ATEX & IECEx approval. The new VisiFerm mA mitigates the negative effects of aging, temperature, and photobleaching in order to reduce the frequency of calibration and deviation reports.



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

### Benefits

- ▶ Reliable and robust optical measurement in hazardous environments
- ▶ Longer cap and sensor life
- ▶ Less frequent calibrations
- ▶ Easy installation with 2-wire connection
- ▶ Direct analog 4-20 mA or digital HART communication
- ▶ Calibration, verification, and maintenance data accessible via ArcAir app

### Typical applications

- ▶ Explosive atmospheres environment
- ▶ Fermentation
- ▶ Wort aeration in breweries

### Ordering Information

#### VisiFerm mA Family Structure

10070760	<b>Code</b>		<b>Interface</b>	
	1		mA/HART	
			<b>Code</b>	<b>a-length (mm)</b>
			1	120
			2	160
			3	225*
			4	325
			5	425
			<b>Code</b>	<b>ODO Cap</b>
			1	H3
		2	H4	
		<b>Code</b>	<b>Wetted Parts</b>	
		1	EPDM	
10070760 -				← Order Code

\*The VisiFerm mA 225 have, in reality, a shaft length of 215 mm. This ensures optimal rinsing in retractable armatures, such as Retractex.

**ODO Cap H3:** For general application in biotechnology, water treatment and monitoring as well as in breweries, wineries and soft drink processing.

**ODO Cap H4:** The ODO Cap H4 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 H3 Kit** Ref 10068400
- **ODO Cap H4 Kit** Ref 10078261

**Cables** see page 112  
**Housings** see page 127

