TecSense
unique solutions in sensor technology

TecMicro Fluid

Optochemical oxygen sensor system for process control and industrial processes

- Optochemical O2 sensor system for liquids
- No maintenance
- Extremely fast
- SIP and CIP stable (TecMicro Fluid Trace & TecMicro Fluid Low)
- Self-diagnostic system TecService software (sensor reports when 80% of its lifetime has been reached)
- Replaceable sensor cap
- Factory Calibrated - Plug & Play
- Easy implementation in your system
- No problem with smaller particles
- Extremely accurate measurement results in the trace ranges
- No sensitivity to magnetic and electric fields
- Minimum shelf life of 1 year for gases in neutral atmosphere

- Measuring speed from 2ms
- Best performance at a competitive price
- No problem with Stop and Go
- 0-point adjustment easily done by the customer

Applikation

- Industrial processes, petrochemical industry, electronics industry

- Pharmaceutical Industry, Biotechnology, Fermentation, Bioreactors
- Food- and Beverage Industry, Brewery, Soft drinks
- Waste water control and Fish farming

Technical Specifications

TS-System Measurement range	TecMicro Fluid Trace 0-200 ppb		TecMicro Fluid Low 0-2000ppb		TecMicro Fluid Med. 0,0 - 10mg/L		TecMicro Fluid High 0,0 - 40 mg/L	
	Range	**Accuracy**	**Range**	**Accuracy**	**Range**	**Accuracy**	**Range**	**Accuracy**
	0-200 ppb	± 3% MW*	0-200 ppb	± 2% MEW**	0-2 mg/L	± 2% MEW**	0-2 mg/L	± 2% MEW**
			200-1000 ppb	±3% MW*	2-8 mg/L	±3% MW*	2-8 mg/L	±3% MW*
			1000-2000 ppb	±5% MW*	8-10 mg/L	± 5% MW*	8-10 mg/L	± 3% MW*
							10-40 mg/L	± 5% MW*
Resolution	1 ppb		1 ppb		0,001 mg/L		0,001 mg/L	
Response time at 26°C/77°F	<20s		<20s		<20s		<20s	
Max. Pressure	20bar		20bar		20bar		20bar	
Temp. Range Min./Max	-10°C/ +60°C		-10°C/ +60°C		-10°C/ +60°C		-10°C/ +60°C	
	14°F/140°F		14°F/140°F		14°F/140°F		14°F/140°F	
Average lifetime LED	min. 10.000h		min. 10.000h		min. 10.000h		min. 10.000h	
Power supply	5V DC		5V DC		5V DC		5V DC	
Data Interface	RS232 / USB / RS485		RS232 / USB / RS485		RS232 / USB / RS485		RS232 / USB / RS485	
Temperature compensation	4 - 40°C or 39,2 - 104°F		4 - 40°C or 39,2 - 104°F		4 - 40°C or 39,2 - 104°F		4 - 40°C or 39,2 - 104°F	
Pressure compensation	STP by default. Changed in software.		STP by default. Changed in software.		STP by default. Changed in software.		STP by default. Changed in software.	
Data Output	digital		digital		digital		digital	
Cleaning	No org. Solvents, 40% EtOH, CIP, SIP		No org. Solvents, 40% EtOH, CIP, SIP		No org. Solvents, 40% EtOH		No org. Solvents, 40% EtOH	
Parts touching sample	St.1.4404/ PTFE/ Glass		St.1.4404/ PTFE/ Glass		St.1.4404/ PTFE/ Glass		St.1.4404/ PTFE/ Glass	
Protection	IP65		IP65		IP65		IP65	
Lifetime Sensor cap C5 [1]	6 months		6 months					
Lifetime sensor cap C3/6/10 [2]					12 months		12 months	
Main service interval [3]	3 years		3 years		3 years		3 years	
Sensor cap replacement interval	6 months or TecService Command		6 months or TecService Command		12 months or TecService Command		12 months or TecService Command	
Expected lifetime of cap [4]	1 year		1 year		2 year		2 year	
Recommended 0-point adjustment	3 months		3 months		3 months		3 months	
Warranty	1-year ex works Grambach		1-year ex works Grambach		1-year ex works Grambach		1-year ex works Grambach	

**MEW= measured end value
* MW = measured value

1. 90°C; CIP/SIP every 5. Tag
2. Standard protection layer (5 - 60°C, pH 3-9)
3. Service including necessary retrofitting
4. Under defined conditions

Scope of delivery

- TecMicro in ordered configuration
- Manufacturer certificate
- 10m cable with appropriate connection (Connection only after according costumer request)
- TecService Software

- Optional Connections (they have to be separately ordered)

    - ½ or ¾ inch T-piece
    - Varivent (Tuchenhagen)
    - TriClamp
    - Flange with ½" fine thread

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TriClamp	Flange with ½" fine thread