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	
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	
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	
Expected lifetime LED	min. 10.000h		min. 10.000h		min. 10.000h		min. 10.000h	
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

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