## Thermal Conductivity CO<sub>2</sub> Sensor

# Proven, Intelligent, Convenient



#### Proven technology

- Improved thermal conductivity technique for greater accuracy and low drift
- Immunity to background gases results in high CO<sub>2</sub> selectivity
- High comparability with established reference methods



#### Predictive maintenance

- Dynamic Lifetime Indicator detects when membrane replacement will be required
- Adaptive Calibration Timer predicts when calibration should be performed



#### Convenient

- Simple maintenance with hygienic membrane cap design
- Installation with Varivent<sup>™</sup>, Tri-Clamp<sup>®</sup> and 28 mm/M42 socket process connections
- Plug and Measure for fast start up
- Easy in-line calibration



#### **Durable**

- Warning of falling membrane integrity protects measurement chip
- No moving parts for reduced failure rate and higher operational uptime
- Automatic sensor protection in event of purge gas failure and during CIP/ SIP cycles



Intelligent CO<sub>2</sub> Measuring System Less maintenance – greater reliability

InPro 5500 i has been developed for in-line  $\rm CO_2$  measurements in brewery and carbonated soft drink processes. The sensor utilizes the well-proven thermal conductivity method to determine  $\rm CO_2$  in liquids. METTLER TOLEDO has combined this technology with the simplified handling and predictive diagnostics features of the unique Intelligent Sensor Management (ISM) concept.

ISM's pre-calibration and Plug and Measure functions ensure fast, error-free measurement point start up.

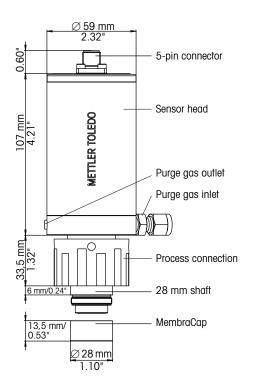
The Dynamic Lifetime Indicator and the Adaptive Calibration Timer enable predictive maintenance planning to keep the sensor at peak performance at all times.

The InPro 5500 i will help breweries and carbonated soft drink producers maintain product quality and control  $\mathrm{CO}_2$  costs by providing accurate in-line measurements in  $\mathrm{CO}_2$  critical processes.



#### Technical data of the InPro 5500 i

Measurement range	0 15 g/L CO <sub>2</sub>
Accuracy	±1% (within ±5°C of calibration temperature)
Operating temperature	−550°C (23122°F)
Mechanical temperature resistance	−5 121 °C (23 250 °F)
Operating pressure	020 bar (0290 psi)
Mechanical pressure resistance	Max. 20 bar (290 psi)
Cable connection	RS 485; 5-pin
CO <sub>2</sub> selective membrane material	PTFE/Silicone (steel reinforced)
Available process connections	Varivent™ Type N Tri-Clamp® 2" 28 mm with cap nut M42
Certificates	MaxCert™ package (material certificate 3.1, surface finish certificate 2.1, final inspection certificate)
Measurement cycle	<20 s



#### www.mt.com/InPro5500i

#### Additional information

Designation	Compatible transmitter
InPro 5500 i	M400 Type 3
	M800

CO<sub>2</sub> sensor InPro 5500 i



### $\begin{array}{ll} {\rm Combined} \,\, {\rm O_2/CO_2} \,\, {\rm multi-channel} \\ {\rm dual} \,\, {\rm measurement \,\, loop} \end{array}$

The InPro 5500 i sensor can be combined with an M400 for a single loop or with an  $\rm O_2$  sensor using the M800 multi-channel transmitter with its intuitive iMonitor for a complete dual  $\rm O_2/CO_2$  loop.

O<sub>2</sub> sensor InPro 6970 i

#### **Process connection compatibility**

Varivent™, Tri-Clamp® and 28 mm/M42 process connections, plus the integrated temperature sensor for more accurate CO<sub>2</sub> measurement, means commissioning is quick and straightforward. The hygienic membrane cap has been designed for ease of cleanability and simple, quick exchange.

### www.mt.com/pro

For more information

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Management System certified according to ISO 9001 / ISO 14001

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