Anton Paar

Cobrix 2600

Optical inline CO_2 and sugar sensor for soft drinks

The crucial ingredients in view with one sensor

Cobrix 2600 measures both dissolved CO_2 and dissolved sugar in your carbonated soft drink. You benefit from a selective measurement and the advantages of a maintenance-free optical inline sensor which keeps an eye on your process specifications and helps you reduce running costs and downtimes.

One sensor – two measurements

The basis of this unique combination is the cutting-edge optical measuring principle ATR (attenuated total reflection). Two channels are used to determine CO_2 and sugar selectively in the process line. This future-proof process technique follows the trends in process analytical technology (PAT) for single parameter determination.

Small footprint

Just one VARIVENT® N connection is needed in the process line for a real inline measurement of CO_2 and sugar. This helps you keep your additional engineering efforts and operating costs low.

Maintenance-free – minimizing total costs of ownership (TCO)

Cobrix 2600 has no moving parts and therefore is entirely maintenance-free. Once brought into the line it simply does its job without requiring further resources, thus minimizing life cycle costs.

Hygienic and quickly back to work after CIP/SIP

The EHEDG-certified (Type EL class 1) hygienic design increases the hygienic safety in your production line.
A patented* internal cleaning unit brings the sensor quickly back to measuring right after CIP/SIP, reducing downtimes in production after cleaning processes.

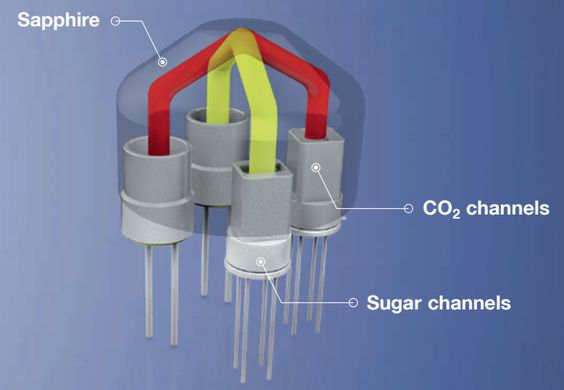
Easy integration and automation

Anton Paar's Smart Sensor concept enables you to connect to a wide range of process control and quality management systems. Cobrix 2600 communicates via standard fieldbus formats such as PROFIBUS, PROFINET, DeviceNet, EtherNet/IP and Modbus TCP. Connection to an mPDS 5 evaluation unit and DAVIS 5 is also possible.

* AT 512 375 B1, CN 103 257 125 B, US 9 063 083 B2, other patents pending

Measuring principle

Spectro-photometric attenuated total reflection (ATR) in mid-IR range: two separate IR beams for CO_2 as well as for sugars, each equipped with a measuring and a reference channel.



Cobrix 2600	CO_2	Sugar
Measuring range	0 g/L to 12 g/L (0 vol to 6 vol)	0 °Brix to 12.5 °Brix
Accuracy*	±0.05 g/L (±0.025 vol)	±0.1 °Brix
Repeatability	±0.01 g/L (0.005 vol)	±0.02 °Brix
Reproducibility (s. d.)	0.01 g/L (0.005 vol)	0.1 °Brix
Resolution	<0.01 g/ L (0.005 vol)	<0.02 °Brix
t_{98} (@ 5 counts filtered)	20 s	
Measuring temperature range	-3 °C to 30 °C	
Ambient temperature range	-5 °C to 40 °C (@ TProbe = -3 °C) -5 °C to 30 °C (@ TProbe = 30 °C)	
T_{max} (CIP/SIP)	95 °C (max. 4 h)	
Pressure	max. 10 bar rel. (145 psi rel.)	
Measuring interval	min. 4 seconds	
Self-diagnosis	Compliant with NAMUR recommendation NE107	
Degree of protection	IP65 and IP67	
Process connection	VARIVENT® N	
Certifications	EHEDG Type EL Class I	
Power	SELV DC 24 V (DC 20 V to 30 V), max. 40 W	
Fieldbuses (optional)	PROFIBUS, PROFINET, DeviceNet, EtherNet/IP, Modbus TCP	
Dimensions (W x H x D)	174 mm x 174 mm x 231 mm	
Weight	approx. 4 kg	

*product-specific adjustment required

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