

INWATER TGP PROBE AND TRANSMITTER



Increasing water temperatures, injection of air in turbid water, algal blooms, or pressurized pumping can result in gas supersaturation. This may lead to bubble trauma or sub-lethal toxicological problems for aquatic species.

The InWater Technologies Total Gas Pressure (TGP) probe provides a rapid and accurate measurement for TGP. The probe measures TGP (mmHg or % saturation), delta P (TGP-BP), and barometric pressure (BP; mmHg).

TGP Transmitter converts the raw mV probe signal and outputs two analog signals in 0-20 mA, 4-20 mA, or 0-5 VDC. The output can be factory configured to two of the four available measurements. The Transmitter requires 12 VDC power (0.3A). A 120 VAC to 12 VDC power supply is optional.

The InWater TGP probe and transmitter is proudly manufactured in Canada.

MEASUREMENT OPTIONS

	Measurement range	Resolution	Accuracy
Total Gas Pressure (mmHg)	0 - 1550 mmHg	1 mmHg	+/-2 mmHg
Barometric Pressure (BP)	0 - 1550 mmHg	1 mmHg	1 mmHg
Total Gas Pressure (%sat; derived)	0 - 200 %	1%	1%
Delta P (TGP – BP; derived)	-1550 - 1550 mmHg	1 mmHg	1 mmHg

PROBE PROPERTIES

Measurement principal	Membrane diffusion
Response time (TGP)	~90% at 5 minutes
Max. operating depth	60m (200ft)
Operating temperature	0-40C
Max operating deployment time	1 month (TGP Cartridge service necessary)
Material	Delrin, Silicon
Cable	5m (other lengths available upon request)
Length	25 cm (9.8")
Diameter	4.3 cm (1.7")
Weight	0.23 kg (0.5lb)

TRANSMITTER PROPERTIES

Length	10.6 cm (4.25")
Width	6.6 cm (2.6")
Height	4.5 cm (1.75")
Weight	0.40 kg (0.9lbs)
Output options	Two analog, specify: 0-20 mA 4-20 mA, or 0-5 V (RS-485, Modbus Protocol available with RIU3 instead of Transmitter)
Power	12 VDC (+/- 10%)

CONFIGURATIONS OPTIONS

ANALOG OUTPUT 1


Units	<input type="checkbox"/> TGP (mmHg)	<input type="checkbox"/> TGP (%Sat)	<input type="checkbox"/> BP (mmHg)	<input type="checkbox"/> Delta P (mmHg)
Output type	<input type="checkbox"/> 0-20 mA	<input type="checkbox"/> 4-20 mA	<input type="checkbox"/> 0-5 VDC	
Output scaling*				

ANALOG OUTPUT 2

Units	<input type="checkbox"/> TGP (mmHg)	<input type="checkbox"/> TGP (%Sat)	<input type="checkbox"/> BP (mmHg)	<input type="checkbox"/> Delta P (mmHg)
Output type	<input type="checkbox"/> 0-20 mA	<input type="checkbox"/> 4-20 mA	<input type="checkbox"/> 0-5 VDC	
Output scaling*	<input type="checkbox"/> 0 - 1550mmHg	<input type="checkbox"/> -100 to +100mmHg	<input type="checkbox"/> 0 - 200%	

*Shorter range gives better resolution

PARTS AND ACCESSORIES

	Part Number	
TGP Probe (5m cable)	10019	
TGP Transmitter	10586 – 0-200% TGP, 4-20mA output 10728 – configured	
TGP probe cartridge	10018	