

INWATER TGP PROBE

SPECIFICATIONS



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).

There are two options for reading the data: 1) InWater's Remote Interface Unit (RIU3) which has a display and outputs RS485, or 2) InWater TGP Transmitter.

The InWater TGP Probe 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)
Dimensions	19 cm (7.4") 4.2 cm (1.6")
Weight	0.23 kg (0.5lb)

PARTS / ACCESSORIES

InWater TGP probe, 5m cable (mV)
PN: 10019



InWater TGP sensor cartridge
(for probes made after 2014)
PN: 10018



InWater TGP Transmitter
PN: 10586 - std config. (0-200% TGP, 4-20mA)
PN: 10728 – non-std config (please specify)



INWATER TGP TRANSMITTER



SPECIFICATIONS



InWater's 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 probe and transmitter are sold separately.

The InWater TGP Transmitter is proudly manufactured in Canada.

TRANSMITTER PROPERTIES

Transmitter dimensions	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 TGP (mmHg) TGP (%Sat) BP (mmHg) Delta P (mmHg)

Output type 0-20 mA 4-20 mA 0-5 VDC

Output scaling*

ANALOG OUTPUT 2

Units TGP (mmHg) TGP (%Sat) BP (mmHg) Delta P (mmHg)

Output type 0-20 mA 4-20 mA 0-5 VDC

Output scaling* 0 - 1550mmHg -100 to +100mmHg 0 - 200%

*Shorter range gives better resolution