



**OBSERVATOR**  
instruments

## ANALITE NEP9000 TURBIDITY PROBES

The ANALITE NEP9000 and NEP9500 series of analogue output turbidity probes are designed for monitoring and process applications where turbidity levels of up to 3,000NTU may be encountered. Standard ranges are 100NTU, 400NTU, 1,000NTU, and 3,000NTU and custom ranges are available. Digital outputs (SDI-12 and/or RS232 as well as ModBUS) are also available in other versions of ANALITE turbidity probes.

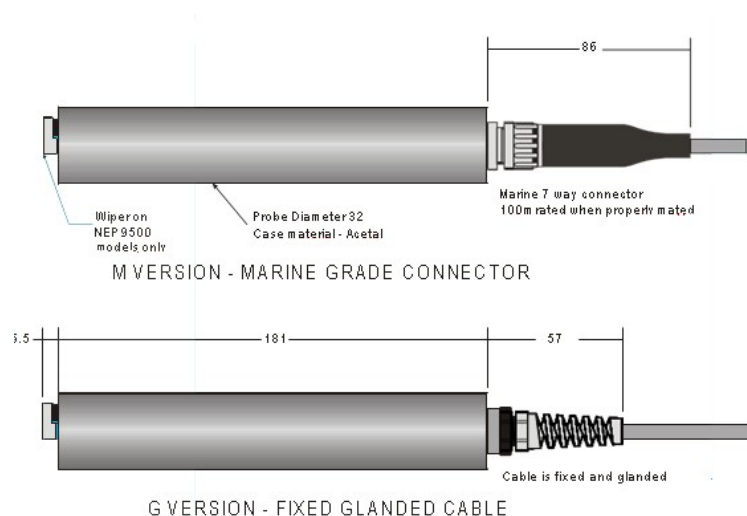
Specifically the ANALITE NEP9000 non-wiping probes are designed for applications where bio-fouling will not build up to obscure the optics such as in short monitoring deployment or placement in fast and cold running water. The ANALITE NEP9500 probes however, with their integral wiper assembly, are designed for operation where bio-fouling or sedimentation buildup is likely. The standard ANALITE NEP9000 and NEP9500 series of probes with its acetal housing may be submerged to a depth of 50 meters (approx. 150 feet). An optional stainless steel housing is available for applications where a greater depth rating is required but not recommended for deployment in salty or acidic water where crevice corrosion may occur. Its depth rating is 100 meters.

The ANALITE NEP9000 and NEP9500 probes use 90° optics and employs infrared light in accordance with ISO7027. All probes use a unique modulation technique that ensures almost total rejection of ambient light conditions as well as a unique microprocessor controlled differential sample and hold circuit for enhanced performance particularly at low turbidity levels.

The applications suited to the ANALITE NEP9000 and NEP9500 probes are so extensive and too numerous to elaborate on but generally they include:

- Monitoring of streams and rivers
- Monitoring of water storage bodies including stratification studies
- Intermediate and final effluent treatment monitoring
- Hydrological run off studies
- Ground and bore water analysis
- Drinking water filtration efficiency
- Industrial process monitoring
- Sludge and dredge monitoring

# ANALITE



*Dimensions Analite NEP9000 probe*

# SPECIFICATIONS

Technique	90° modulated infra-red (ISO7027).				wipe every 2 hours and on power-up. During a wipe, the output remains within $\pm 1\%$ full scale of the turbidity value just prior to the wipe.
Ranges	100, 400, 1,000NTU and 3,000NTU				
Resolution	<b>Range</b>	<b>Resolution</b>	<b>Designation</b>	Wipe Time	8 seconds nominal
	100NTU	$\pm 0.2$ NTU	NEP9x01	Weight	
	400NTU	$\pm 1.0$ NTU	NEP9x04	<b>NEP9000</b>	120gms – probe only, 100gms connector plus 70gms per meter of cable.
	1,000NTU	$\pm 3.0$ NTU	NEP9x10	<b>NEP9500</b>	180gms – probe only, 100gms connector plus 70 gms per meter of cable.
	3,000NTU	$\pm 10$ NTU	NEP9x30		Add 200 grams for optional stainless steel casing.
Repeatability	$\pm 1\%$ at 25°C for 100NTU and 400NTU. $\pm 2\%$ at 25°C for 1,000NTU			Cable	5 core + shield, 6mm nominal dia. PUR sheath. Conductor resistance 45 ohms per km. Weight - 70 grams per meter.
Linearity	Better than 1% for 100NTU and 400NTU, Better than 5% for 1,000NTU and better than 7% for 3,000NTU.			Cable Length	Cable length to be specified at time of order. Cable cost is additional (Part NEP-CBL).
Temperature	Better than $\pm 0.05\%/^{\circ}\text{C}$ .			Depth Rating	50m (150ft). 100m (330ft) for optional stainless steel casing.
Outputs	$\pm 2.5$ V over Range. 4 - 20mA and 0 - +2.5V ranges also available to order			Operating Temp.	-10°C to 40°C
Zero Offset	Less than $\pm 3$ mV (0 to 40°C, $\pm 2.5$ V output)			Storage Temp.	-20°C to 50°C
Calibration	Factory calibrated using non-toxic AEPA polymer solutions			Accessories	
Power	9.6 - 28V dc, 15mA ON. 40mA when wiping for NEP9500 models only			<b>NEP-WIPE</b>	Wiper replacement kit comprising of 4 silicon wipers and a hex fastening key. For use on the NEP9500 models as well as NEP395 and NEP495 probes.
Settling Time	< 5 second after application of power to 99%			<b>NEP19SHRD</b>	Protective stainless steel shroud to suit the NEP9000 and NEP9500 models.
Wiping	For NEP9500 models only. Initiated by momentarily (>50msecs and <500msecs) bringing the wiper actuation conductor to the 0V conductor. By permanently terminating the wiper actuation conductor to 0V will initiate a			<b>NEP-CBL</b>	Probe cable in meters.
				<b>NEP390-CA-xx</b>	Connector and cable assembly required for M version. Cable length xx to be determined at time of order, maximum 99m.
				Options	Stainless steel (316) casing. Add suffix S to part number. For environments that require greater depth rating. Depth rating increased to 100 meters and casing diameter 32mm.