ANALITE NEP9000 SERIES TURBIDITY PROBES for Field Deployment Applications

NEW IMPROVED VERSION!

Now with automatic wipe feature and output hold during wipe.
Optional PVC housing available for corrosive environments.
4 - 20mA output option now available.
Better microprocessor control.

The ANALITE NEP9000 and NEP9500 series of turbidity probes are an enhanced version of our successful ANALITE 190 and 195 series probes. They offer better performance and greater ease of deployment yet are available in exactly the same mechanical package (G version).

The ANALITE NEP9000 and NEP9500 series of 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 and 1,000NTU, but custom ranges are available up to 3,000NTU.

Specifically the ANALITE NEP9000 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 316 stainless housing may be submerged to a depth of 100 meters (approx. 330 feet). An optional PVC housing is available for applications in salty or acidic water where crevice corrosion may occur in stainless steel. Its depth rating is 30 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:

1) Monitoring of streams and rivers.
2) Monitoring of water storage bodies including stratification studies.
3) Intermediate and final effluent treatment monitoring.
4) Hydrological run off studies.
5) Ground and bore water analysis.
6) Drinking water filtration efficiency.
7) Industrial process monitoring.
8) Sludge and dredge monitoring.

Which model (and option) is best used is dependent on the application, the measuring environment, the logging equipment and the monitoring period (deployment times) required.

Specifications:

Technique 90° modulated infra-red (ISO7027).

Ranges 100, 400 and 1,000NTU – range selected at time of order. Other range values available at additional cost - up to 3,000NTU.

Resolution

Range	Resolution	Designation
100NTU	0.2NTU	NEP9x01
400NTU	1.0NTU	NEP9x04
1,000NTU	3.0NTU	NEP9x10

where x = 0 (no wiping) or 5 (wiping).

Repeatability ±1% at 25°C for 100NTU and 400NTU.
±2% at 25°C for 1,000NTU

Linearity Better than 1% for 100NTU and 400NTU, better than 5% for 1,000NTU.

Temp. Coefficient Better than ±0.05%/°C.

Outputs ±2.5V OR 4 - 20mA over range.
0 - +2.5V and 0 - +1V also available to order.
Specify output at time of order (±2.5V default)

Zero Offset Less than ±3mV (0 to 40°C)

Calibration Factory calibrated using non-toxic AEPA polymer solutions.

Power 9.6 - 28V dc, 15mA ON. 40mA when wiping for **NEP9500 models** only (at 30m submersion).

Settling Time < 5 second after application of power to 99%.

Wiping For **NEP9500 models** only. Initiated by momentarily (>50msecs and <500msecs) bringing the wiper actuation conductor to the 0V conductor. Permanently terminating the wiper actuation conductor to 0V will initiate a wipe every 2 hours and on power-up. During a wipe, the output remains within ±1% full scale of the value just prior to the wipe.

Wipe Time 8 seconds nominal.

Weight **NEP9000 models** - 310gms – probe only, 100gms connector plus 70gms per meter of cable.
NEP9500 models - 380gms – probe only, 100gms connector plus 70 gms per meter of cable.

Probe Dimensions See drawing below.

Construction Type 316 stainless steel casing with protruding castellations to protect the plastic fibre-optic face.
Cable connection via 7-way waterproof connector (standard version), or probe cable is glanded directly from the rear of the probe via an integrated plastic strain relief (add suffix G to part number).

Cable 5 core + shield, 6mm dia. PUR sheath .
Conductor resistance 45 ohms per km.
Weight - 70 grams per meter.

Cable Length To order - 99m (330ft) maximum

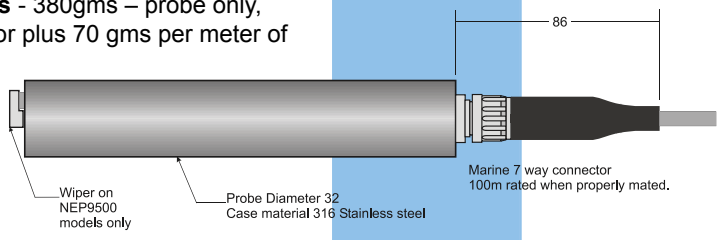
Depth Rating 100m (330ft) stainless steel housing only.

Operating Temp. -10°C to 40°C.

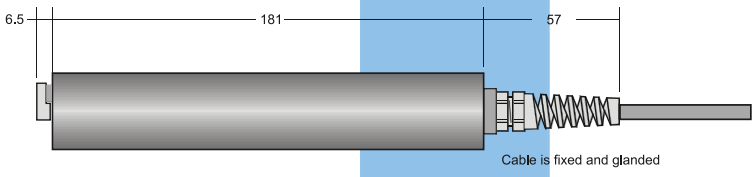
Storage Temp. -20°C to 50°C.

Accessories **NEP19WIPE** - Wiper replacement kit comprising of 4 wipers and a hex fastening key. For use on the NEP9500 models only as well as NEP195, NEP395 and NEP495 probes.
NEP19SHRD - Protective stainless steel shroud to suit the NEP9000 and NEP9500 models as well as the NEP190 and NEP195 probes.
NEP-CBL-xx - Cable only xx meters, maximum 99m. Required for G version probes.
NEP390-CA-xx - Connector and cable assembly required for standard version. Cable length xx to be determined at time of order, maximum 99m.

Option PVC housing for environments that may cause corrosion in stainless steel. Depth rating reduced to 30 meters and casing diameter increased to 34mm.



STANDARD VERSION



G VERSION - FIXED GLANDED CABLE

All dimensions in mm.

Specifications subject to change without notice.
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